Supporting Children with Autism through Physical Education

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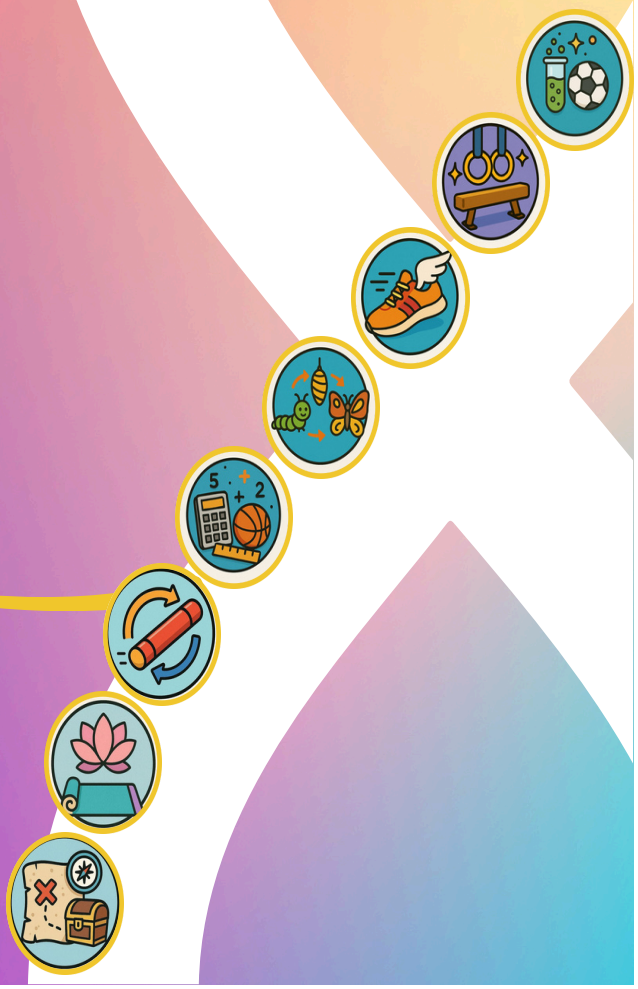
A GUIDE FOR TEACHERS AND EDUCATORS



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INTRODUCTION

Autism Spectrum Disorder (ASD) is a developmental condition that affects how individuals communicate, interact socially, and experience the world around them. For many students with autism, school can be a challenging environment—especially in subjects like Physical Education (PE), where traditional teaching approaches often overlook their unique needs.

Across Europe, there is growing awareness of the importance of inclusive education, yet students with autism continue to face significant barriers. These include limited access to appropriate support, undertrained teachers, and a lack of tailored programs—especially in PE. Despite the well-documented benefits of physical activity for children with autism—including improved communication, behavior, motor skills, and overall well-being—there is still no structured program specifically designed to address their needs within school-based PE.

The EmpowerAble Curriculum was created in direct response to this gap. This curriculum is designed to support teachers, school staff, and professionals working with students with autism by equipping them with the knowledge, skills, and confidence to deliver inclusive, adaptive, and engaging PE lessons. It draws on current research, the lived experiences of educators, and the priorities set out in the EU Disability Strategy, which emphasizes “inclusive education for all.”

Through six practical and comprehensive chapters, the curriculum addresses the following key areas:

1. How to teach PE to students with autism, using accessible and adaptive methods.
2. How to actively engage autistic students in PE, creating positive and meaningful experiences.
3. How to use a mix of blended, hands-on, and non-formal methodologies to keep students physically active.
4. How to encourage participation in group activities, promoting social skills and reducing isolation.
5. How to increase motivation, making PE a rewarding and enjoyable part of the school day.
6. How to use sports as a tool for community engagement, helping reduce social exclusion and build inclusion through physical activity.

This curriculum aims to empower teachers—many of whom feel unprepared to teach PE to students with autism—with innovative strategies, inclusive practices, and adaptable tools. It also seeks to promote the mental, physical, and emotional well-being of autistic students by ensuring they can access the full benefits of sports and physical activity, both in and outside of school.

The EmpowerAble project is more than a curriculum—it is a movement toward equity, inclusion, and shared participation.

Supporting Children with Autism through Physical Education

Chapter 1

How to Teach Physical Education to Students with Autism

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CHAPTER 1

Teaching Physical Education to the Students with Autism

Abstract

This document presents three inclusive physical education lesson plans designed to support children with Autism Spectrum Disorder (ASD) across different age groups: preschool, primary school, and secondary school. Each lesson plan is crafted to enhance motor skills, emotional regulation, social interaction, and sensory integration, ensuring that children with ASD can engage meaningfully in physical activities. These lessons promote self-confidence, physical fitness, and social well-being, while being adaptable to the unique needs and abilities of each student. The activities focus on developing the following competencies: communication, creativity, digital skills, social skills, emotional regulation, cognitive abilities, and promoting a healthy lifestyle. Additionally, the lessons emphasize teamwork, collaboration, and communication skills in group settings, providing students with valuable opportunities for social interaction. By fostering the development of these competencies, the lessons support students' overall growth and well-being.

The **"Children's Yoga Story"** lesson plan is designed for preschool and kindergarten children, offering a playful approach to physical activity through yoga. The lesson combines simple yoga poses with a story-based narrative, allowing children to move in a fun and engaging way. The use of visual aids, breathing exercises, and sensory breaks supports children with sensory sensitivities, making the practice accessible and enjoyable. This lesson helps promote emotional self-regulation, focus, and flexibility, while encouraging relaxation and mindfulness in a non-competitive and structured environment.

The **"Animal Gymnastics"** lesson plan targets primary school children, specifically those in first through fourth grade. This lesson combines imaginative play with physical activity, as children mimic animal movements to develop strength, balance, and coordination. Through activities like hopping like a frog, crawling like a bear, or slithering like a snake, students improve gross motor skills while engaging their creativity and imagination. The lesson includes clear visual instructions and structured steps to ensure that children with ASD can follow along easily. The activities also foster social skills such as cooperation and communication, as children work together in group tasks to complete animal-themed challenges. This lesson encourages movement, creativity, and social interaction in a fun, low-pressure setting.

The **"Learning to Orient in Space" Abstract**: lesson focuses on helping secondary school students develop orientation and navigation skills through activities that involve searching for hidden objects

based on numbered clues. Students will enhance their spatial awareness, map-reading abilities, and coordination while learning to recognize and name objects in various environments. The lesson encourages teamwork, leadership, and communication skills, with engaging tasks designed to motivate and reduce anxiety, especially for students with Autism Spectrum Disorder (ASD). Through both cognitive and physical challenges, students will gain confidence in navigating and orienting themselves in different spaces.

These three lesson plans—**Children's Yoga Story, Animal Gymnastics**, and **Learning to Orient in Space** — are designed to meet the developmental needs of children with autism across preschool, primary, and secondary school stages. The activities are flexible and adaptable, providing a supportive and inclusive environment for students with ASD to engage in physical education. Each lesson incorporates strategies for promoting physical, emotional, and social development, ensuring that all students, regardless of their age or abilities, can participate in and benefit from the activities. By fostering a positive experience in physical education, these lesson plans help students build skills that promote long-term well-being and a lifelong love of physical activity.

1.1. Lesson Plan: Children's Yoga Story

<table>
<tr><th colspan="4">Learning Scenario and Implementation Plan-1</th></tr>
<tr><td colspan="2">Target Groups</td><td colspan="2">Preschool- aged children</td></tr>
<tr><td colspan="2">Learning Objectives</td><td colspan="2">While listening to a story, children will perform yoga exercises and learn to synchronize their movements with breathing, which will help them manage stress in challenging situations. Additionally, they will improve their coordination, balance and body awareness.</td></tr>
<tr><td colspan="2">Location of the Activity</td><td colspan="2">Kindergarten, gym, sports field, park, or forest.</td></tr>
<tr><td colspan="4">Competencies</td></tr>
<tr><td colspan="2">Communication, Creativity</td><td>Digital, Social, Emotional</td><td>Healthy lifestyle, Cognitive</td></tr>
<tr><td>Lesson Summary</td><td colspan="3">Preschool- aged children will get involved on a storytelling journey while performing yoga elements, merging body movements with stories and games. The duration of the story can be adjusted based on the child's ability to focus, perform the movements and other factors. During this lesson, children will not experience any pressure, as there will be no competition, winners, or losers. They will focus on their sensations, learn patience and practice waiting. Throughout the activity, children will be introduced to asanas (yoga poses) and learn how to align them with breathing. They will develop flexibility, coordination and body awareness. To prepare for this lesson, it is recommended to refer to the video Kids Yoga all about BUGS! . If possible, the video can also be shown during the lesson.</td></tr>
<tr><td>Introduction</td><td colspan="3">Arrange gymnastic mats in a circle, ensuring each child has their own mat. Begin with a warm-up: flexing the feet, knee rotations, torso twists (to both sides), arm and neck warm-up exercises. Once the children have adequately warmed up, the teacher</td></tr>
</table>

	introduces a cube (Attachment No.1) with images of yoga poses. Each child, in turn, rolls the cube and attempts the depicted pose to the best of their ability. The teacher then announces the lesson objective: „While listening to a story, you will perform yoga poses.“
Main Question	How can we correctly synchronize breathing with movement? How can we perform yoga poses according to our abilities while improving physical endurance and coordination?

Main Activity

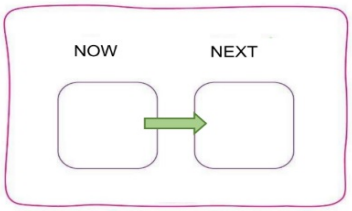
Children sit cross-legged on their mats in the „Easy Pose.“ The teacher begins telling a story, performing coordinated yoga movements as part of the story. Children copy the teacher ‘s movements. The story, created by the teacher, should be engaging, short and told in a clear, expressive manner, emphasizing changes in body position. Breathing exercises should be incorporated, encouraging children to synchronize their movements with their breath (e.g., tell them that they arrive at a beautiful field filled with flowers, pick a flower and pretend to smell it.) Whenever possible, use visuals aids such as the Kids Yoga all about BUGS! 🐜🐞🕷🐝🐛 video or cards with yoga poses.

Cube with yoga poses

,,Stop” and ,,Go”

Feelings of Thermometers

„Now“ and „Next“



„Choice Board“ „Need Board“

Resource Utilization

Gymnastic mats, yoga pose cards, video materials, a cube with yoga pose images, „Stop“ and „Go“, “Now” and “Next” cards, feelings thermometer.

General Adjustments and Recommendations

● Familiarize the child with the environment and materials: before starting the activity, ensure the child is familiar with the space and the tools they will be using. This reduces anxiety and helps them feel more comfortable during the lesson. ● Break activities into short, specific tasks: children with ASD may find it easier to focus and succeed if tasks are divided into clear and manageable steps. Avoid overwhelming them with long or complex instructions. ● Be mindful of sensory sensitivities: some children may be hypersensitive to certain stimuli (e.g loud noises, bright lights or strong smells). To minimize stress, try to reduce such triggers and provide a calm, quiet space where the child can retreat if needed	● Use visual aids and clear transitions: in addition to verbal instructions, use visual aids, such as cards or pictures, to clearly indicate what task are going on, when a task is starting or ending. Teacher can use a timer to manage the task duration or an hourglass to help the child understand when the task will finish and when it’s time to move on the next one. Consider using auditory cues like clapping or sound signals to mark transitions between activities. A „Choice Board“ or„Need Board“ (Attachment No.5) with visual cues (e.g. drinking, bathroom, snack) can help the child express their needs clearly. ● Individualize task and provide alternatives: adapt tasks to suit the child‘s ability level. If a child struggles with a particular activity, offer a simplified version. If a

(assistive devices can be used, e.g. noise-cancelling headphones). Ensure the environment is as sensory-friendly as possible.	child refuses to participate in a group activity, offer an individual alternative that aligns with the same goal.

● Provide clear and concise instructions: keep instructions simple and direct. Reinforce them with demonstrations or modeling the activity to ensure understanding.
● Assign a peer buddy or assistant: Pair the child with a supportive peer or assistant who can help guide them through the activities and provide encouragement.
● Use positive reinforcement and motivation: encourage the child with praise, rewards or stickers for their effort, not just for the end result. This helps boost their confidence and reinforces their engagement.
● Set achievable goals: establish small, attainable goals (e.g. participating for 10 minutes or completing a single task from start to finish) and celebrate the child‘s progress.
● Keep activities within a manageable timeframe: for preschool-aged children, limit the activity to 30 minutes, with 4-5 tasks, to help them maintain focus and participate fully. It is recommended to adjust the activity time according to each child’s abilities and, if necessary, to end the session while the activity is still engaging.
● Provide additional support: having a teaching assistant or special education professional available during the session can provide valuable support, especially when a child needs extra help or attention.
● Conduct assessments before and after the lesson: evaluate the child‘s progress by reviewing the main tasks of the session at both the beginning and the end. This helps evaluate how well the child has understood and engaged with the activities.

Teaching Tips for Teachers

● Introduce the child to the environment: before the lesson, familiarize the child with the space where the activity will take place, as well as the materials they will use. Ensure that there are no unnecessary distractions by preparing and using only the tolls required for the activity. ● Preview the session flow: use cards representing a sequence of activities to review the session‘s structure with the child. Practice the activities together to help them feel comfortable and confident. ● Allow pose selection: give the child the opportunity to choose their favorite yoga poses from the cube so they can perform them when it‘s their turn. (Attachment No.1) ● Use visual aids: incorporate helpful tools, such as red and green cards labeled „Stop“ and „Go“ (Attachment No.2), to provide clear and simple visual cues, which may be easier for the child to understand than verbal instructions. ● Flexible seating: if the child finds it difficult to stay seated, allow them to choose a comfortable position. Emphasize that the mat is their designated space. Teacher can place a specific color tag to a child and use it as a label.	The same color can be used to mark a mat so that the child understands it is their designated spot. Use visible cards showing the session sequence and allow the child to place „Now“ and „Next“ (Attachment No.3) cards, helping them feel secure by knowing what comes next. ● Alternative Placement: if the child prefers not to sit in the circle, offer them the option to place their mat next to the teacher. This proximity makes it easier to provide encouragement and reminders. ● Repeating poses: the teacher can demonstrate yoga poses multiple times while telling a story to give the child more opportunities to understand and follow along. ● Body awareness support: for children with autism who may struggle with perception on the body in spaces, the teacher can gently assist them in performing the yoga pose to ensure they feel supported and successful. ● Use of emotional cards: when responding, the child can use emotional cards or feelings thermometers (Attachment No.4) to express how they feel about the activity or yoga poses. ● Demonstration instead of verbal response: because the child might be non-verbal, instead of verbalizing, the child can point to or demonstrate the easiest or most challenging yoga pose by selecting it on the cube.

Assessment Strategy for Learning Outcomes

1. Review the lesson objective: reflect on how well the class achieved the goal.
2. Guiding Questions: What emotions did you feel after the story (Emotion cards can be used.) Which yoga pose was the hardest? The easiest? Why?
3. Practical Activity: Ask the children to perform their favorite or easiest yoga pose, emphasizing deep breathing in and out. Repeat several times to reinforce relaxation and mindfulness.

Observe and evaluate the children‘s ability to: perform the poses to the best of their ability. Coordinate their movements with breathing. Express their feelings about the activity. Demonstrate improved focus, balance and physical awareness during the session. Adjust future activities based on individual needs and group dynamics to enhance engagement and developmental progress.

1.2. Lesson Plan: Animal Gymnastics

Learning Scenario and Implementation Plan-2		
Target Groups	Primary school - aged children	
Learning Objectives	After imitating animal movements, students will be able to perform corresponding gymnastics exercises.	
Location of the Activity	School (classroom, sport field, gym)	
Competencies		
Cognitive, Communication	Creativity, Social	Emotional, Healthy lifestyle
Lesson Summary	In this lesson, students will imitate animals and attempt to portray their appearance and characteristics. This will help them better understand the animals’ internal state, strength, and explore new possibilities for their own bodies. They will experience the joy of movement through a variety of actions. The students will try gymnastics exercises to develop strength, endurance, flexibility, and will continue to practice proper breathing techniques. A video (goo.gl/M6usDB) can be used in preparation for the lesson or shown during the class if possible.	
Introduction	The gymnasium floor is covered with soft gymnastics mats to create a path. The activity "Animal Path" begins. The teacher asks the students which animals they like, whether these animals' movements differ, and what is characteristic of them. Then, the teacher invites students to walk in a circle around the mats and imitate the movements of a stork, rabbit, duck, and frog. The teacher announces the lesson’s objective: "By mimicking animal movements, you will learn gymnastics exercises."	
Main Question	What gymnastics exercises can we learn from animals?	
Main Activity		
"Water Animals" The teacher asks the students which animals they know that can live both in water and on land. One such animal is the crab. The teacher discusses how crabs move and invites students to mimic them (moving on all fours, walking forward). Afterward, the teacher asks the students to imitate how a seal would move on the mat (lying on the stomach, lifting the upper body on the hands and dragging the body) and how a crocodile would crawl. Afterward, the teacher asks the students how they felt and which parts of their bodies were most exercised by these movements. **Game: "Imitate the Animal"** The goal of this game is to compare movements and experience their diversity. The students stand in a circle around the mats, and, according to the teacher’s commands, they move like ducklings (they can also imitate their quacking), hop like rabbits, crawl like crabs, or walk like storks. The activity can be repeated several times, varying the order and speed of movements. If possible, a video of animal movement imitation (goo.gl/M6usDB) could be shown to help students understand the movements and coordination. If children are capable of playing in a team, they can be encouraged to play team games by imitating various animals		
Resource Utilization		
Soft gymnastics mats, gymnastics tools (poles, hoops), whistle, video projector, cards. To promote social awareness and reduce anxiety in new situations, social stories/social narratives are recommended for children with Autism Spectrum Disorder (ASD).		

General Adjustments and Recommendations
● The teacher selects animal cards according to the need. The cards can be either colored or black and white. If the student has communication difficulties or cannot read, the cards may have no text, only the image. ● If a student is interested in a specific topic (animals, vehicles, etc.), try to link the lesson's theme with their area of interest. ● If a student has motor difficulties, choose tasks and exercises that match their abilities. ● If you are unsure whether a student can succeed, avoid asking them to perform in front of the whole class. Try to prevent situations where the student might experience a public failure in front of their peers. ● If the student has difficulty waiting, allow them to complete activities first. ● Encourage students to find solutions on their own, instead of providing them with the correct answer, as it creates a sense of accomplishment ● If you notice a student feeling uncomfortable, ask if they would like some time alone. Without drawing attention, create a space where they can "calm down" and refocus before continuing with the activity.
Teaching Tips for Teachers
● Before the lesson, introduce the lesson plan to the student, briefly showing the entire lesson structure using pictures or a monitor. This will help the student know what to expect, providing confidence and calmness. ● If a student is reluctant to participate in the group activity, involve them by giving cards with animal names and asking them to show each card to classmates for the group to imitate the animal. ● If the student is not comfortable imitating the animal movements, they can simply name the animals. ● If a student is shy, allow them to observe their classmates' movements first, and then try it individually. ● To make students feel more comfortable, they can act out animal movements for the class to guess the animal. ● If a student struggles to mimic the animal movements, they can match the animal to the movement cards (e.g., jumping, crawling, etc.). ● If necessary, the video may need to be paused or watched multiple times to fully understand the movements and coordination. ● Allow students to "lead" an activity, which can boost their self-confidence. ● Any corrections to improper movements should be made subtly and ethically. For students with additional special needs (ASS), it might be more difficult to summarize or self-assess, so: ● Instead of verbal answers, the student may show cards. ● If the student has difficulty understanding terms like "stretch" or "flap," they can observe others and repeat their actions.
Assessment Strategy for Learning Outcomes
The teacher recalls the lesson's objective and evaluates how well it was achieved. Possible questions for the students include: ● Which animal did you enjoy imitating the most? Why? ● Which one was the funniest? ● Which one was the most difficult? Why? (This question should encourage students to reflect on which parts of their body are not as strong and need more exercise.) The students are asked to stretch like kittens, flap their hands like storks, and take deep breaths. The teacher concludes that these movements are very similar to gymnastics exercises and asks the question: ● What gymnastics exercises did you learn from animals?

1.3. Lesson Plan: Learning to Orient in Space

Learning Scenario and Implementation Plan-3	
Learning to Orient in Space	
Target Groups	Secondary school - aged children

Learning Objectives	After understanding that orientation is based on prominent, easy-to-spot objects, students will practice orienting themselves while searching for hidden items based on clues.
Location of the Activity	Schoolyard, sports field, park, forest

Competencies		
Cognitive, Communication, Citizenship	Creativity, Social, Cultural	Emotional, Healthy lifestyle

Lesson Summary	Students will learn to orient themselves in a location by searching for hidden objects based on numbered clues. During the lesson, students will learn to recognize various objects and name them. Teachers may need to assist in correctly naming new/unknown objects/plants. To encourage student motivation, it's worth making one or two tasks fun and engaging (e.g., hanging a 'fruit' high on a tree, filled with items that children like, such as candies, cookies, stickers, etc.).
Introduction	Warm-up: ● Jogging at a light pace (up to 2 minutes). ● Arm, leg, shoulder, and back exercises (up to 4 minutes): while walking in a circle, various arm swings, turns, bends, and small jumps (e.g., one-leg jumps, alternating legs). ● Foot exercises: various jumps and lunges (for stretching leg muscles). The teacher announces the lesson's objectives: ● You will understand that orientation requires finding visible and easily recognizable objects. ● You will learn to orient yourself by looking for hidden objects based on clues.
Main Question	How to orient yourself in space?

Main Activity

The teacher explains how to orient yourself in an unfamiliar area, emphasizing the importance of noticing prominent, easily recognizable landmarks, such as a tower, tall building, or street signs in the city. In nature, a tall tree, power pole with a stork's nest, or another noticeable object can be used. The teacher discusses what to do if you get lost. For example, in a forest, look for a trail and follow it to a road, then walk along the road until you find a nearby house. In a city, seek help from a trustworthy adult.

Game: "Search for Hidden Objects"

Purpose: to develop the ability to orient in space. The teacher should prepare in advance by hiding small objects in an area of about 100 m² and marking the routes with numbered flags or ribbons. Students search for the objects in teams, each team is tasked with finding one object. They must follow the flags in numerical order. The team that finds its object the fastest wins. This game can be repeated, swapping the routes among teams.

Resource Utilization

Whistle, numbered colored paper flags or ribbons, small objects to search for. To promote social awareness and reduce anxiety in new situations, social stories/social narratives are recommended for children with Autism Spectrum Disorder (ASD).

General Adjustments and Recommendations

● Provide information about lessons in unfamiliar locations (e.g., in the forest or park) at the start of the day, so the student can prepare for the change.

● Use Visual and Sensory Supports: Integrate visual aids and sensory objects to help clarify instructions and concepts, providing a more engaging learning experience.

● Foster Social Interaction: Encourage teamwork and peer collaboration to strengthen social skills and enhance group dynamics.

● Positive Reinforcement and Motivation: Offer continuous praise and rewards for effort, boosting students' motivation and self-confidence.

● Simplify Instructions and Provide Clear Visual Cues: Use clear, simple instructions and visual cues to ensure all students understand and stay on track during activities.

Teaching Tips for Teachers

● Before the lesson, explain the lesson plan to the student using pictures or a monitor. This will help them understand what to expect, giving them confidence and calmness.
● A short video or photo collage can be shown to introduce the concept of orienteering.
● Exercise routines can be highly individual, depending on the student's abilities, understanding, physical condition, and even their mood on a given day.
If the student is participating in the exercises along with the rest of the class, they are encouraged to perform the same tasks as everyone else.
● If a student struggles with teamwork, they can be given an individual task in a smaller area, such as searching for objects based on pictures of the items.
● If a student finds group activities challenging, they can be assigned the task of timing the activity or monitoring whether the others follow the rules. The student can also create their own routes using the same landmarks.

Assessment Strategy for Learning Outcomes

The students gather in a circle. The teacher recalls the lesson's objectives and discusses how they were achieved. Possible questions:
● How do you orient yourself in an unfamiliar area?
● What should you do if you get lost?
● Did you enjoy searching for hidden objects?
● How did it feel to collaborate in a team? Why?
● Do you think it would have been harder to find the objects without the numbered clues? (You can discuss how similar clues exist in the real world, such as street names and building numbers.)
The teacher summarizes the lesson and praises students for their efforts.

Reflections for Students with Special Educational Needs (ASD)

Complete sentences and reflection questions: (At the end of the lesson, students are given slips of paper with incomplete sentences. They complete the sentences: "In this lesson, I learned that..."; "It was interesting..."; "I would like to learn more about..."; "In this lesson, I did well...") and read them to the group or class.

Learning diary: (The learning diary encourages students to reflect on what and how they are learning and to describe it freely. It can be used to assess learning and compare how their understanding of a subject has changed. The learning diary allows students to analyze their own thinking before sharing it with others.)

Sweet reflection: (At the end of the lesson, when summarizing what was learned or the group work, students can be offered colorful candy-coated sweets. Each color represents a different reflection: Red – What do you disagree with? Yellow – What are you unsure about? Orange – What made you sad? Green – What do you agree with? Blue – What surprised you? Brown – What made you happy?)

● Evaluation with colored slips: (Completed works are pinned to the board, and students evaluate their classmates' works. Evaluations are made only on other students' or groups' work. On the work that best meets the criteria, students place a colored slip.)

● Reflection with symbols: (This tool can be used at the beginning of the process, but also during the process. The teacher lays out eight different cards and asks students to choose the card most related to the previous lesson/activity:

1. Card 1 – I learned/understood that...
2. Card 2 – I would like to share...
3. Card 3 – The most important thing for me was...
4. Card 4 – I experienced/felt...
5. Card 5 – I don't understand and want to learn more about...
6. Card 6 – I was supported by... / I was helped by...
7. Card 7 – My next specific step was...
8. Card 8 – The image that is in my mind...

Each student has no more than one minute to share their thoughts. An alternative use of the cards is that everyone

	picks a card without looking at it and then answers the question on the card.)

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Supporting Children with Autism through Physical Education

Chapter 2
How to Engage Students with Autism in Physical Education

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CHAPTER 2

Engaging Students with Autism in P.E. Activities

Physical Education (P.E.) plays a vital role in the holistic development of students, fostering not only physical fitness but also social, emotional, and cognitive growth. For students with Autism Spectrum Disorder (ASD), P.E. activities offer a unique opportunity to develop motor skills, enhance social interaction, and build confidence in a supportive environment. However, engaging these students requires thoughtful strategies that cater to their individual needs and preferences. Integrating interdisciplinary approaches such as incorporating elements of language and science into P.E. lessons provides an innovative way to make activities more accessible and meaningful. These connections can deepen understanding, foster engagement, and help students with autism connect their learning across multiple domains. For example, combining movement-based games with vocabulary building or introducing scientific concepts through physical exploration can create a dynamic, inclusive environment that nurtures both physical and academic growth. This approach not only enhances participation but also demonstrates how educators can align P.E. with broader educational goals, making lessons more inclusive and impactful for students with autism.

2.1. Lesson Plan: Integrated World Knowledge and Physical Education Class: "A Butterfly's Movement Journey

<table>
<tr><th colspan="4">Learning Scenario and Implementation Plan-1</th></tr>
<tr><th colspan="4">Science Lesson Integrated with Physical Activity</th></tr>
<tr><th colspan="4">The Life Cycle of a Butterfly Physical Movement</th></tr>
<tr><td>Target Groups</td><td colspan="3">• Pupils with ASD: Adaptable for children of all ages on the autism spectrum
• Teachers and facilitators who deals with ASD</td></tr>
<tr><td>Learning Objectives</td><td colspan="3">• Students will identify and describe the four stages of a butterfly's life cycle.
• Students will demonstrate understanding of each stage through physical activities that mimic the butterfly's movements.
• Students will practice turn-taking and collaborative participation during group activities.</td></tr>
<tr><td colspan="4">Competencies</td></tr>
<tr><td colspan="2">Science Competency
Understanding life cycles and changes in living organisms.</td><td>Physical Education Competency
Coordination, gross motor skills, and spatial awareness.</td><td>Social Competency
Cooperative interaction with peers and following structured routines.</td></tr>
<tr><td>Learning Scenario</td><td colspan="3">Introduction (10 minutes)
• Greet students and introduce the topic using a butterfly puppet or toy.
• Show a large visual chart of the butterfly life cycle.
• Briefly explain each stage (egg, caterpillar, chrysalis, butterfly).</td></tr>
</table>

<table>
<tr><td></td><td colspan="3">• Match flashcards of each stage to the corresponding images on the visual chart.</td></tr>
<tr><td>Warm-up Activity</td><td colspan="3">Instructions (5 Minutes)
• Students imitate the movements of a butterfly.
• Flap arms like wings.
• Hop in place to simulate flying.
• Pretend to "land" on flowers by crouching and standing.
• Use visual cards with images of butterflies and movements.
• Provide a peer or assistant for modeling.
• Use a timer or a visual schedule to signal the end of each activity.
Goal: Encourage movement to prepare for learning and engage sensory systems.</td></tr>
<tr><td colspan="4">Main Activity</td></tr>
<tr><td colspan="4">Activity 1: Egg and Caterpillar Crawl (10 minutes)
Place plastic eggs around the room and have students pretend to be eggs, curling into a ball. “Hatch” together and crawl like caterpillars to collect the eggs.

Activity 2: Chrysalis Rest (5 minutes)
Have students wrap themselves in fabric cocoons or blankets and “rest” as if transforming.

Activity 3: Butterfly Dance (10 minutes)
Hand out butterfly wings or scarves. Play soft music and encourage students to “fly” around the room, flapping their arms.</td></tr>
<tr><td colspan="4">Instructions fo Teachers</td></tr>
<tr><td>• Greet students warmly and use a visual schedule to outline the lesson.
• Use short sentences and direct eye contact. "Butterflies grow in four stages: egg, caterpillar, chrysalis, and butterfly."
• Demonstrate curling into a ball shape on the floor or inside a hula hoop. "Butterflies start as tiny eggs. Let’s curl up like little eggs.</td><td>• Demonstrate wrapping a scarf or pretending to sleep curled up. "The caterpillar forms a chrysalis and stays very still.
• Show a simple arm-flapping motion to mimic wings. "The butterfly emerges and flaps its wings to fly.
• Use colorful scarves as wings and have students move around the room, flapping their “wings” and following a ribbon trail.</td><td colspan="2">• Use a timer or count to 10 to keep the activity structured.
• Show a simple crawling motion. "After hatching, the caterpillar wiggles and crawls to find food."
• Include obstacles, like foam blocks, to simulate a caterpillar navigating leaves.

Goal: Practice turn-taking, patience, and accuracy in aiming.</td></tr>
<tr><td>Cool Down and Reflection</td><td colspan="3">Activity
• Gather students in a circle.
Instructions
• Use picture cards to review the life cycle stages.
• Ask students to share their favorite part of the activity.
Goal: Allow students to unwind and reflect on their experience.</td></tr>
<tr><td colspan="4">Observational Tips

• Watch for signs of overstimulation (e.g., covering ears, pacing).
• Notice individual preferences or triggers that might affect participation.
• Monitor for engagement and comprehension during verbal and physical explanations.
• Use visual aids (e.g., pictures of the butterfly life cycle) to introduce the topic.
• Incorporate multi-sensory learning, including hands-on props (e.g., plastic eggs, caterpillar toys).
• Break activities into small, manageable steps with clear and concise instructions.
• Use modeling and repetition to demonstrate each activity.</td></tr>
<tr><td colspan="4">Teaching Strategy</td></tr>
</table>

Preparation and Visual Supports
• Use visual aids (pictures, diagrams, or videos) to introduce the life cycle stages.
• Prepare a large, laminated life cycle chart for reference during the activities.
• Use butterfly props (wings, puppets, or costumes) to make the session interactive.

Sensory and Movement Check-In
• Start with simple stretching or breathing exercises to help regulate sensory systems.
• Use butterfly-themed warm-ups, like "flutter arms" or "caterpillar curls" (rolling on the floor).

Science Content Delivery
• Use a storybook or video about the life cycle of a butterfly (e.g., The Very Hungry Caterpillar).
• Pause to discuss each stage briefly, showing real-life pictures or models.
• Reinforce key vocabulary: egg, caterpillar, pupa/chrysalis, butterfly.

Physical Movement Activities
Movement Activity
• Students curl into a tight ball on the floor to represent eggs.
• Add music or count to mimic the passing of time until "hatching."
Movement Activity
• Crawl on hands and knees like a caterpillar.
• Lay out a "leaf trail" (cutouts on the floor) to simulate eating.
• Incorporate fine motor tasks "pick up leaves" (bean bags) as they crawl.
Movement Activity
• Students stand still with arms wrapped around their bodies, swaying gently.
• Use a scarf or cloth to wrap loosely around them to simulate the chrysalis stage. Encourage slow, controlled movements to build balance and focus.
Movement Activity
• Students spread their "wings" (arms or costume props) and "fly" around the room.
• Mark "nectar stations" with cones or colored spots where they stop and perform a small exercise (e.g., jump or clap).

Resource Utilization

Visual Aids
• Picture cards or large posters showing the life cycle stages: egg, caterpillar, chrysalis, and butterfly.
• Laminated step-by-step instructions with visual cues for each activity.

Physical Props
• Colored hoops (representing different life stages).
• Soft fabric wings or scarves for the butterfly stage.
• Stretchy fabric or tunnel (to simulate the chrysalis stage).
• Small balls or foam eggs for the egg stage.
• Crawl mats for caterpillar movements.

Timing Tools
• Stopwatch or a music player with themed music for time-bound activities.

Interactive Equipment
• Small cones or markers to define movement paths.
• Bean bags or tactile objects for sensory engagement.

Adjust Rules and Equipment

Safety Items
• Padded surfaces or soft mats for crawling and rolling.

• Noise-canceling headphones for students sensitive to sound.

Timers or Music

• Use music or gentle sound cues to signal transitions between activities.

• Physical Movement Activities

Egg Stage: Stationary and Balance

• Students curl into a ball (like an egg) and try balancing on one foot or rocking gently back and forth.

Purpose: Improves balance and spatial awareness.

Adjustment-1	**Adjustment-2**	**Adjustment-3**
• Use visual prompts or cues to show the egg position. • Allow for seated participation for students with limited mobility. **Caterpillar Stage: Crawling and Coordination** • Students crawl on mats, weaving around cones or under low bars (like a caterpillar moving through leaves). **Purpose:** Develops motor coordination and core strength.	• Provide tactile floor guides (e.g., textured strips) for students who benefit from sensory feedback. • Shorten the course or eliminate obstacles if needed. **Chrysalis Stage: Balance and Static Holds** • Students stand or kneel inside a hula hoop (the chrysalis) and hold a pose for a few seconds, mimicking transformation. **Purpose:** Encourages balance, body awareness, and focus.	• Use larger hoops for more space. • Allow students to sit if standing is challenging. **Butterfly Stage: Free Movement** • Students "emerge" and wave scarves or ribbons like butterfly wings, running or skipping around a designated area. **Purpose:** Builds cardiovascular fitness and creativity.

General Adjustment

• Provide visual or auditory cues to guide movement paths. • Create smaller, enclosed movement zones to reduce sensory overload. **Simplify Instructions** • Use short, clear sentences or visual aids. • Demonstrate activities before students attempt them. **Modify Duration** • Keep activities short, with frequent breaks. • Allow students to progress at their own pace.	**Provide Choices** • Offer alternative movements for each stage (e.g., walking instead of running, sitting instead of standing). **Sensory Considerations** • Limit loud noises and bright lights. • Use soothing music or nature sounds related to butterflies (e.g., birds chirping). **Peer Support** • Pair students with a buddy or helper if needed. • Encourage collaborative activities, such as passing a "caterpillar ball" along a line.

Adjusting for Cognitive and Motor Skills

Simplified Instructions

• Use simple, clear language and visual supports (like diagrams or video demonstrations) for each activity. This helps students understand what's expected, reducing anxiety or confusion.

Structured Routine

• Maintain a consistent schedule so students can anticipate and prepare for transitions. Use timers or visual schedules to indicate the beginning and end of each activity.

Positive Reinforcement

• Offer praise or rewards for participation and effort. Reinforce behaviors that are aligned with the activity, such as taking turns or engaging in movement.

Sensory Modifications

• Some students may be sensitive to noise, lighting, or textures. Always have options for reducing sensory overload, such as dimming lights or using noise-canceling headphones.

Motor Skill Adaptations

• Provide assistance with movement if necessary (e.g., hand-over-hand help for crawling or walking), or offer a variety of materials like large soft balls or foam cones for easier handling.

Teaching Tips for Teachers

Classroom Management Tips	**Engagement Techniques**
• Establish a structured routine with visual schedules. • Use positive reinforcement to encourage participation (e.g., stickers, praise). • Set up clear boundaries and zones for activities to minimize distractions. • Provide transition warnings (e.g., "In two minutes, we'll move to the next stage!").	• Use interests of the students (e.g., favorite animals) to make the topic relatable. • Incorporate music or sound effects to represent the butterfly's life stages. • Allow for choice-making (e.g., "Would you like to fly or crawl first?"). • Ensure there is adequate downtime for sensory regulation.

Learning Outcomes	
• Pupils will accurately identify each stage of the butterfly's life cycle. • Pupils will demonstrate understanding through physical representation of the stages. • Pupils will engage positively with peers during group activities.	
Acquired Knowledge	• Students will learn about the biological stages of a butterfly's life cycle while engaging in movement. • Understanding cause and effect, as well as the connection between physical activity and learning.

Qualitative Feedback Indicators

High Engagement

• The student actively participates in the movements, is enthusiastic, and shows excitement in performing each stage.

Moderate Engagement

• The student participates, but there may be moments of distraction or hesitation. The student can follow instructions but needs occasional redirection.

Low Engagement

• The student is disengaged, resistant to movement, or has difficulty following through. They may need extra encouragement or modified activities.

Communication

Strong Communication

• The student verbally expresses excitement, asks questions, or engages in peer interaction during the activity. They can follow verbal instructions well.

Body Awareness and Control

High Awareness

• The student demonstrates control over their movements, engages in balance and strength exercises effectively, and shows understanding of their body in space.

Moderate Awareness

• The student shows some control, but may need reminders to adjust posture or movements. They may struggle with certain tasks like balance or coordination.

Low Awareness

• The student struggles with motor tasks, showing little or no awareness of body position and control. They may exhibit difficulty staying still or completing movements accurately.

Emotional Regulation

Positive Regulation

• The student remains calm, focused, and self-regulated throughout the activity. They demonstrate positive behaviors like smiling, laughing, or staying calm during transitions.

Moderate Regulation

• The student may show signs of frustration or anxiety at times but can regain composure with guidance.

Challenging Regulation

• The student exhibits high levels of anxiety, restlessness, or frustration, possibly withdrawing from the activity or acting out. Additional support may be needed to help manage these emotions.

Moderate Communication • The student may occasionally use non-verbal cues, gestures, or simple phrases but requires support to express needs or emotions. **Limited Communication** • The student uses minimal verbal communication, or it may be difficult for them to express their thoughts. Non-verbal communication might be more common.	**Social Interaction** **Positive Social Engagement** • The student interacts with peers, follows group activities, and engages in cooperative play during the butterfly movement game. **Moderate Social Engagement** • The student occasionally interacts but may prefer solitary activities. They may need encouragement to join group activities. **Minimal Social Engagement** • The student may avoid group activities, preferring to be alone or showing little interest in socializing with peers during the activity.

Developed Competencies

Cognitive Development

• Students with autism may have varying levels of cognitive abilities.

Sequencing and Time

• Understanding the sequential stages of the butterfly's life cycle (egg, larva, pupa, adult butterfly) can aid in improving cognitive skills related to sequencing events in time.

Cause and Effect

• As students perform physical movements related to each life cycle stage, they can learn to associate actions with results (e.g., crawling forward as a caterpillar, emerging from a cocoon).

Sensory Integration and Awareness

• Students with autism often benefit from activities that engage multiple senses. The movements associated with the life cycle of a butterfly can be used to improve sensory awareness.

Body Awareness

• Activities such as "fluttering" like a butterfly or "wiggling" like a caterpillar help students to develop awareness of their body in space. This can help improve motor coordination.

Tactile and Proprioceptive Sensory Feedback

• Movement activities that involve different textures (e.g., crawling on soft mats to simulate the caterpillar stage) can provide sensory stimulation and help students with tactile sensitivities.

Visual and Auditory Cues

• Using visual cues (like images of the butterfly stages) and auditory prompts (such as sounds associated with the stages, like a gentle wind for the butterfly flying) can enhance the experience and support comprehension for students with autism.

Social and Emotional Skills

• Engaging in group physical activities helps develop social and emotional competencies.

Turn-taking and Collaboration

• Group activities where students role-play different stages of the butterfly can encourage teamwork and communication.

Self-regulation

• The use of physical movement to represent each life cycle stage can help students manage their energy levels, emotions, and focus. For example, "fluttering" as a butterfly might be a calming and controlled movement, helping to promote self-regulation.

Emotional Expression

• As students act out different stages of the butterfly, they can begin to recognize emotions and states that might correspond with the stages (e.g., feeling small and confined in the pupa stage, but free and expansive when flying as a butterfly).

Gross Motor Skills • Activities like crawling on the floor like a caterpillar, spinning in a controlled manner to represent the pupa stage, or jumping and stretching as butterflies will strengthen large muscle groups and coordination.	**Vocabulary Building** **Non-verbal Communication** • Students can learn and reinforce words associated with the butterfly life cycle (egg, larva, pupa, butterfly) through actions, verbal prompts, or visual aids.

Fine Motor Skills • To simulate the delicate nature of a butterfly, students could engage in activities that promote fine motor control, such as grasping a lightweight object (like a butterfly cut-out) or handling materials that mimic the fragile nature of a butterfly's wings. **Language and Communication Skills** • Using the butterfly life cycle as a theme in physical activity can reinforce language and communication development.	• Many students with autism find non-verbal communication easier to understand. Expressing emotions through movement or acting out the life cycle stages can enhance their understanding of body language and expression. • Observe and record how students engage with the activities. • Provide instant feedback and celebrate each student's efforts.
Measurement Criteria	
Physical Engagement **Objective** • Assess the student's ability to replicate physical movements associated with each stage. **Method** • Observe and record participation and movement accuracy. Use a checklist with simple categories (e.g., crawling, stillness, flying motions). **Understanding the Science Concept** **Objective** • Determine if the student associates movements with the butterfly life cycle stages. **Method** • Use picture matching or sequencing tasks after the activities. For example: Match pictures of a caterpillar, chrysalis, and butterfly to corresponding movements. Sequence the pictures correctly after completing the full life cycle dance. **Communication and Social Interaction** **Objective** • Evaluate the student's ability to follow instructions and interact with peers during group activities.	**Method** • Monitor responsiveness to verbal and visual prompts and note any instances of teamwork (e.g., helping peers) **Sensory and Emotional Regulation** **Objective** • Observe the student's sensory and emotional responses to the activities. **Method** • Use a simple rating scale or anecdotal notes to document if the student remains calm, engages in self-regulation strategies, or expresses joy during activities. **Adapted Assessment Tools** • **Rubrics**: Create rubrics tailored to individual goals. • **Level 1:** Needs extensive support. • **Level 2:** Completes with some assistance. • **Level 3:** Completes independently. **Visual Feedback Tools** • Use smiley faces or thumbs-up/thumbs-down visuals for students to self-assess their participation. **Digital Tools** • Record activities and use playback for discussions with students or caregivers.

2.2. Lesson Plan: Integrated Language and Physical Education Class: "Obstacle Course Language Adventure"

Learning Scenario and Implementation Plan-2	
English Language Integrated with Physical Education	
Obstacle Course Language Adventure	
Target Groups	• 12-16 aged pupils with Autism • Teachers and facilitators who deals with ASD
Learning Objectives	• By the end of the activity, target groups will have: • Develop receptive and expressive language skills through structured physical activities.

<table>
<tr><td></td><td colspan="2">• Enhance social interaction and teamwork by participating in group-based physical activities.
• Improve listening, comprehension, and following multi-step directions.
• Foster a positive and inclusive learning environment, promoting physical fitness alongside language development.</td></tr>
<tr><td colspan="3">Competencies</td></tr>
<tr><td colspan="2">Cognitive Competencies
Understand and follow simple and complex instructions.
Social Competencies
Collaborate with peers to complete tasks and activities.</td><td>Physical Competencies
Develop gross motor skills through guided movement activities.
Linguistic Competencies
Practice using descriptive language, sequencing words, and action-related vocabulary.</td></tr>
<tr><td>Learning Scenario</td><td colspan="2">Introduction (10 minutes)
Welcome and Warm-Up:
• Introduce the session by linking language learning with movement, explaining that today's activities will focus on communication through fun, physical actions.
• Highlight the goals of working as a team, practicing active listening, and using language to express actions.</td></tr>
<tr><td>Warm-up Activity</td><td colspan="2">Activity (10 Minutes)
• Follow the Leader: Action Words
Goals:
• Warm up physically and mentally for the session.
• Introduce key action verbs (e.g., jump, stretch, clap, run).
• Encourage pupils to follow directions and repeat actions.
Goals:
• 1. Gather students in a circle.
• 2. Demonstrate an action while saying its corresponding verb aloud, e.g., “Jump!” while jumping.
• 3. Pupils copy the action and repeat the word.
• 4. Take turns letting students lead, encouraging them to choose their own action.</td></tr>
<tr><td colspan="3">Main Activity</td></tr>
<tr><td colspan="2">Activity: "Obstacle Course Language Adventure" (20 Minutes)
Goals:
• Enhance comprehension of spatial and action-related language.
• Foster cooperation and turn-taking.
• Build vocabulary through interactive play.</td><td>Assign language tasks at each station:
Steps:
• Set up an obstacle course: Use cones, hoops, balance beams, and other equipment to create a simple course.
• Station 1: Match action cards (e.g., a picture of "climbing" with the word).
• Station 2: Listen to instructions like “crawl under the rope” or “hop to the cone.”
• Station 3: Describe their action (e.g., “I’m jumping over the line”).
• Station 4: Work with a partner to give each other instructions to complete a task.
• Group pupils in pairs or small teams, ensuring everyone has a chance to lead and follow instructions.
• Rotate through the course, assisting pupils as needed.</td></tr>
<tr><td colspan="3">Instructions for Teachers</td></tr>
<tr><td colspan="2">Preparation
• Pre-teach key vocabulary through visuals and modeling.</td><td>During the Activity
• Use clear, concise instructions and repeat them as necessary.
• Encourage communication by prompting students with questions like, “What are you doing?” or “What’s the next step?”
Adaptations</td></tr>
</table>

• Ensure the obstacle course is safe and adaptable for all abilities.	• Use visual aids or picture cards for pupils who need additional support. Adjust tasks based on individual physical or sensory needs.
Pupils Instructions	• Listen carefully to the instructions for each station. • Complete the tasks by using the actions or words you've learned. • Work with your partner or team to help each other understand and finish the activities. • Remember to take turns and encourage your friends.
Cool Down and Reflection	**Activity:"Action Storytime and Stretching"** • Gather pupils in a quiet, open space and lead them through light stretching exercises. • Create a short story incorporating the action words they used in the main activity (e.g., "Today, we crawled under ropes, jumped over lines, and climbed over cones"). • Invite students to add their own sentences, using action words and describing their favorite part of the activity. • Reflect by asking: "What was the most fun action you did today?" "Did you learn a new word? What is it?"

Observational Tips

Social Interactions

• Monitor how students respond to peers during group activities.

• Observe turn-taking, sharing of materials, and joint attention during tasks.

Sensory Responses

• Note any signs of sensory discomfort (e.g., covering ears, avoiding specific textures) and adjust activities accordingly.

• Look for sensory-seeking behaviors (e.g., jumping, spinning) that may need regulation.

Cognitive Engagement

• Assess how students follow multi-step instructions.

• Observe vocabulary retention and usage during and after activities.

Motor Coordination

• Watch for difficulties in gross or fine motor skills during physical activities.

• Evaluate how students adapt to movement challenges and spatial awareness tasks.

Teaching Strategy

Structured Routine	**Task Simplification**	**Peer-Assisted Learning**
• Begin with a visual schedule showing the sequence of activities (e.g., warm-up, task, cooldown). • Use clear transitions (e.g., a specific sound or gesture).	• Break down complex activities into smaller, manageable steps. • Provide repeated practice with clear, consistent language prompts.	• Pair students with peers for guided practice in communication and cooperation. • Model how to encourage and support one another during tasks.

Resource Utilization

Visual Aids

• Flashcards with action verbs (e.g., "throw," "jump") and nouns related to P.E. (e.g., "ball," "hoop").

• Picture sequences for multi-step actions.

P.E. Equipment

• Soft balls, bean bags, hula hoops, cones, or parachutes.

• A small whiteboard or laminated instruction cards for stations.

Language Tools

• Portable voice-output communication devices or AAC systems for non-verbal students.

• Dry-erase boards for writing and illustrating key vocabulary.

Sensory Tools

• Noise-canceling headphones for students with auditory sensitivities.

• Fidget items or weighted vests for self-regulation.

Differentiation

Adapt to Communication Levels

Nonverbal Students

• Use picture cards, gestures, or AAC (Augmentative and Alternative Communication) devices to convey instructions. For example, show a picture of "jump" while demonstrating the action.

Emerging Verbal Students

• Encourage single-word responses, such as saying "throw" when throwing a ball.

• Offer a word bank or visual aids.

Fluent Students

• Use complete sentences to give and receive instructions, such as "Pass the ball to your left partner."

Modify Physical Activities Based on Sensory Preferences

High Sensory Seekers

• Use activities with strong physical input, such as running, jumping, or tossing a weighted ball.

Sensory Avoidant Students

• Provide quieter activities, such as walking through cones or passing a lightweight ball. Use noise-canceling headphones if needed.

Offer Flexible Grouping

• Group students based on communication abilities or comfort levels.

• Pair verbal students with nonverbal ones for collaborative activities like a relay race, where one student demonstrates the action, and the other verbalizes it.

• Use smaller groups or one-on-one sessions for students who struggle with large group dynamics.

Adjust Complexity of Instructions: Simple Instructions

• "Jump," "Run," "Catch" for students with limited language.

Multi-Step Instructions

• "Run to the red cone, then pass the ball to your friend" for those who can process more complex commands.

• Use visual schedules or step-by-step charts for students who need structured guidance.

Provide Varied Response Options

• Allow students to point to pictures, use sign language, or use verbal responses during activities.

• Incorporate a "choice board" with images or words for students to select their preferred activity or response.

Incorporate Interests to Motivate Participation

• Tailor activities to individual interests, such as using a favorite character or theme (e.g., superheroes, animals) in the language prompts. For example, "Fly like a superhero to the cone."

• Use thematic props, like colorful scarves for "dance moves" or balls with favorite characters, to maintain engagement.

Adjust the Environment

• Reduce distractions by holding activities in a quieter corner of the gym or outdoors in a controlled space.

• Use clear boundaries and visual markers (e.g., cones, floor tape) to define activity zones.

Use Peer Modeling and Support

• Pair students with neurotypical peers or older mentors to model actions and language.

• Encourage peers to use simple and clear language when interacting with students with autism.

Vary Activity Duration

Short Sessions

• For students with lower attention spans, break activities into 5-10 minute segments with breaks.

Extended Engagement

• For students who can sustain attention, combine multiple activities into a longer, cohesive session.

Teaching Tips for Teachers

Classroom Management

Simplify Instructions

• Use clear, concise, and direct language when giving instructions. Break tasks into small, manageable steps.

• Visual supports (e.g., diagrams or pictures) can reinforce verbal directions.

Use Visual Schedules

• Provide a visual schedule of the day's activities, including the P.E. activity.

• Knowing what to expect helps reduce anxiety and increase focus.

Provide Clear Transitions • Use countdowns or signals to prepare pupils for transitions between activities. For example, a visual timer or verbal cue like "In two minutes, we will move to stretching." **Incorporate Predictable Routines** • Stick to a consistent routine for P.E. activities. • Familiarity and predictability help pupils with ASD feel secure and more willing to participate. . **Adjust Sensory Stimuli** • Be aware of sensory sensitivities. For example, loud gymnasiums or whistles may be overwhelming. • Consider quieter settings or alternatives to loud noises (e.g., clapping instead of whistles). **Foster Peer Support** • Pair pupils with empathetic and supportive peers who can model appropriate behaviors during activities. • Encourage collaborative games that focus on teamwork rather than competition. **Classroom Management Tips** **Set Clear Expectations** • Establish simple, concrete rules for P.E. activities (e.g., "We walk in the gym," "We take turns"). • Display these rules visually and review them before each session. **Create a Calm Area** • Provide a designated "calm corner" where pupils can take a sensory break if they feel overwhelmed. • Include sensory tools like stress balls or weighted blankets.	**Use Positive Reinforcement** • Celebrate successes with immediate, specific praise (e.g., "Great job catching the ball!") and tangible rewards when appropriate (e.g., stickers or extra free play). **Minimize Distractions** • Arrange the physical environment to reduce distractions. • Clear unnecessary equipment, and ensure there's enough space for activities without crowding. **Practice Patience and Flexibility** • Be prepared for unexpected behaviors. • Stay calm, redirect attention as needed, and avoid drawing negative attention to the pupil. • Provide extra processing time for responses. **Engagement Techniques** **Incorporate Interests** • Include the pupil's specific interests in activities. For example, if a pupil loves animals, introduce a game that mimics animal movements like "walk like a crab" or "hop like a frog." **Use Visual and Kinesthetic Learning** • Demonstrate activities visually before asking pupils to try. • Use gestures, pictures, or videos.
Introduce Choice-Making • Offer limited choices for activities to give pupils a sense of control (e.g., "Do you want to start with the obstacle course or stretching?"). **Use Music and Rhythms** • Add rhythmic elements or familiar songs to activities. This can help with transitions and create an engaging, predictable structure. **Incorporate Cooperative Games** • Focus on games where pupils work together to achieve a goal (e.g., parachute games, relay races). • Avoid games that emphasize winners and losers, which may cause frustration or disengagement. **Reinforce with Visual Success Markers** • Use visuals to mark progress, such as a chart showing completed tasks or stars for achievements. This helps pupils see tangible success and builds motivation. **Adapt Equipment** • Modify equipment to meet individual needs, such as using softer balls, larger targets, or lightweight items, ensuring all pupils can participate successfully.	
Learning Outcomes	
Communication Skills • Demonstrate the ability to follow simple and multi-step verbal or visual instructions during physical activities. • Use expressive language to describe actions, movements, or equipment used during activities (e.g., "I throw the ball").	**Motor Skills and Self-Regulation** • Enhance motor coordination by performing movements related to specific language tasks (e.g., jumping to match a picture with a word). • Improve self-regulation skills by transitioning smoothly between activities with minimal stress.

<table>
<tr><td>• Practice turn-taking and cooperative communication while engaging in team-based games.
• Expand vocabulary related to physical activities, body parts, and movements (e.g., jump, stretch, balance).
Social Skills
• Develop interpersonal skills by collaborating with peers in a structured group setting.
• Recognize and respect personal space and boundaries during physical interactions.
• Respond appropriately to praise, encouragement, or corrective feedback from teachers or peers.</td><td>• Increase body awareness through guided physical exercises tied to language prompts.
Cognitive and Problem-Solving Skills
• Match physical actions to verbal or visual cues, demonstrating comprehension of instructions or commands.
• Develop sequencing skills by arranging actions or tasks in the correct order during an obstacle course or game.
• Practice identifying and correcting errors in actions or language tasks in real-time.
Emotional Development
• Build confidence and self-esteem through successful participation in structured activities.</td></tr>
<tr><td colspan="2">Qualitative Feedback Indicators</td></tr>
<tr><td>Engagement and Interest
• Students actively participate in physical and language activities, showing motivation and enjoyment.
Verbal and Non-Verbal Communication
• Students demonstrate improved understanding and use of action verbs, either through speech or gestures.
Motor Skill Improvement
• Students perform physical actions with better precision and coordination over time. Social Interaction:
• Students cooperate, take turns, and communicate effectively with peers and the teacher.
Adaptability and Confidence
• Students adapt to new activities and exhibit increased confidence as the lesson progresses.
Positive Reinforcement
• Recognize personal achievements and describe them (e.g., "I ran fast today").
• Celebrate peers’ successes by using affirming language (e.g., "Great job! You finished the course quickly"). Communication Skills
• Use descriptive words to explain physical movements (e.g., "I am jumping high," "This ball is heavy").</td><td>• Practice giving instructions to peers in simple, structured language (e.g., "Pass the ball to me," "Run to the red cone").
Receptive Language
• Follow verbal instructions with visual supports (e.g., "Pick up the blue ball and run to the yellow cone").
• Identify and understand positional vocabulary used during activities (e.g., "under," "over," "beside").
Pragmatic Language
• Engage in turn-taking dialogues during group games (e.g., "It's your turn now," "Well done, your turn is next").
• Practice polite social phrases in P.E. contexts (e.g., "Can I have the ball, please?" "Thank you for passing it to me").
Social Skills
Collaboration
• Participate in team-based activities requiring joint problem-solving (e.g., working together to complete an obstacle course).
• Demonstrate active listening by responding to peers' instructions or cheering them on during activities.
• Follow multi-step physical commands that combine language comprehension with movement (e.g., "Run to the hoop, pick up a bean bag, and throw it into the basket").</td></tr>
<tr><td colspan="2">Measurement Criteria</td></tr>
<tr><td colspan="2">• Observe and record how many action words each pupil uses correctly during activities.
• Use a checklist for physical performance of actions.
• Conduct a quick review quiz using flashcards at the end.
Measurement Criteria
• Language: % of correctly identified and verbalized action words.
• Physical: % of successfully performed actions.
• Social: Participation and interaction level in group activities.</td></tr>
</table>

Observation Checklist • Use a checklist to monitor pupils' participation, engagement, and communication during activities. • Note eye contact, gestures, verbal expressions, or signs of understanding during instructions and interactions. **Visual and Verbal Feedback** • Assess understanding through verbal responses or visual cues (e.g., thumbs up, smile, or nod) to determine comprehension of language used in activities. **Task Completion** • Evaluate pupils' ability to follow multi-step instructions (e.g., "Throw the ball, then run to the cone") during physical activities. • Record their success rate or areas needing improvement.	**Peer Interaction Assessment** • Monitor and document how pupils interact with peers, including turn-taking, cooperative tasks, or asking/answering questions, as these demonstrate social communication skills. **Use of Augmentative Tools** • For pupils using communication aids (PECS, AAC devices), assess their effectiveness in expressing needs, responding to prompts, or initiating interactions during activities. **Self-Assessment Tools** • Introduce simple reflection activities where pupils use visuals (e.g., emoji charts) to indicate how they felt about their performance or communication in the session. **Skill Progress Tracking** • Maintain a record of progress in specific language-related skills tied to the activity, such as vocabulary use, sentence construction, or listening comprehension. **Parent and Teacher Feedback** • Use a short survey or communication log to gather insights from other adults who work with the child, providing a holistic view of the child's language use across contexts.

2.3. Lesson Plan: Bowling for Pupils with Autism

Learning Scenario and Implementation Plan-3			
Physical Education Lesson			
Bowling for Pupils with Autism			
Target Groups	• Pupils with ASD: Adaptable for children of all ages on the autism spectrum • Teachers and facilitators who deals with ASD		
Learning Objectives	• Develop gross motor coordination and accuracy through bowling. • Enhance social interaction and communication skills during a group activity. • Foster independence and confidence in participating in physical activities. • Practice following multi-step instructions and maintaining focus on a task.		
Competencies			
Physical Competences Hand-eye coordination, balance, and strength application in rolling the ball.	**Social Competences** Turn-taking, waiting patiently, and supporting peers.	**Emotional Competences** Managing frustration and celebrating success.	**Cognitive Competences** Understanding scoring concepts and spatial aw areness.
Warm-up Activity	**"Pin Stretch and Move"** • Set up lightweight cones (or soft pins) around the space. • Students walk, hop, or gently jog between cones to "knock them over" using only their hands, emphasizing controlled movements. Stretching break • Introduce simple stretches imitating bowling movements (e.g., "arm swing like you're rolling a ball"). • Use verbal cues and visual prompts to guide transitions between movements. **Purpose:**		

<table>
<tr><td></td><td colspan="2">Warm up muscles, practice targeting, and transition into bowling-related motion.</td></tr>
<tr><td colspan="3">Main Activity</td></tr>
<tr><td colspan="2">Modified Bowling Game
Setup
• Use a soft ball (foam or lightweight) and lightweight plastic bowling pins.
• Create individual lanes using tape or cones for clearer boundaries.
• Provide visual supports such as picture cards or diagrams for turn-taking and rules.</td><td>Steps
• Each student gets 2 turns per frame.
• Use simplified scoring (e.g., 1 point per pin).
• Practice rolling the ball in a straight line. Allow adaptations like using a bowling ramp if needed.
• Encourage peer encouragement, like clapping or giving thumbs-up.</td></tr>
<tr><td>Cool Down and Reflection</td><td colspan="2">"Pin Pose & Chat"
• Ask students to sit in a circle near the pins.
• Lead gentle deep breathing exercises, mimicking the motion of rolling a ball forward and back.
Reflective questions
"What did you enjoy about bowling today?"<br>"What was challenging, and how did you overcome it?"
• Highlight positive observations about each student’s effort or achievement.
Purpose
• Relax muscles, reinforce positive experiences, and provide a transition back to a calm state.</td></tr>
<tr><td colspan="3">Observational Tips</td></tr>
<tr><td colspan="3">• Look for signs of overstimulation (e.g., covering ears, withdrawing). Adjust the environment or activity pace accordingly.
• Encourage and acknowledge small successes.
• Be mindful of individual triggers and preferences—some may prefer quieter surroundings or a specific sensory experience.
• Use consistent, clear communication, and allow time for processing instructions.</td></tr>
<tr><td colspan="3">Teaching Strategy</td></tr>
<tr><td colspan="2">Structured Environment
• Arrange the bowling area in a clear and organized manner.
• Use visual cues like signs, lane markers, or color-coded equipment to guide students.
• Provide a consistent routine: introduction, warm-up, practice, cool-down, and wrap-up.
Simplified Instructions
• Use short, clear, and direct language.
• Pair verbal instructions with visual aids or demonstrations.
• Break tasks into small, manageable steps (e.g., "Pick up the ball," "Stand at the line," "Roll the ball").</td><td>Visual Supports
• Use picture cards or video modeling to demonstrate correct posture, grip, and movement.
• Provide a visual schedule to outline the session.
Positive Reinforcement
• Praise effort and progress, not just results.
• Use rewards like high-fives, stickers, or points to maintain motivation.
• Offer frequent feedback to encourage improvement.
Individualized Adaptations
• Allow students to use ramps or bumpers if needed.
• Adapt the weight and size of the bowling ball for individual comfort.
Peer Modeling and Social Interaction
• Pair students with understanding and supportive peers for teamwork or friendly competition.
• Encourage turn-taking, cheering, and positive interactions.</td></tr>
<tr><td colspan="3">Resource Utilization</td></tr>
<tr><td>Needed Materials</td><td colspan="2">• Soft foam balls, lightweight plastic pins, or cones.
Visual aids
• Turn-taking cards, step-by-step diagrams for bowling.
Adapted equipment</td></tr>
</table>

<table>
<tr><td></td><td>• Bowling ramp or tactile markers for guidance.
Optional sensory tools
• Weighted vest, noise-canceling headphones, or visual timers.
• Designated quiet corner for students needing a break.</td></tr>
<tr><td colspan="2">General Adjustment</td></tr>
<tr><td>• For students needing extra support, offer hand-over-hand guidance or weighted balls for better control.
• Incorporate auditory or visual cues (e.g., small bells in pins or colored targets).
Purpose
• Enhance motor skills, encourage peer interaction, and provide structured activity with clear rules.
Skill Level Adaptation
• Offer different ball weights and ramps to accommodate varying motor skill levels.</td><td>• Use lighter balls for those with less strength or difficulty handling heavier objects.
Visual and Verbal Support
• Provide visual guides (like lane markers or colored tape) and simplified verbal instructions for students who need additional cues.
Individualized Goals
• Set personalized objectives, such as hitting one pin, knocking down more than before, or improving ball placement, based on each student’s ability and progress.</td></tr>
<tr><td colspan="2">Teaching Tips for Teachers</td></tr>
<tr><td>Classroom Management Tips
Clear Structure
• Begin with a visual schedule outlining the session (warm-up, practice, games, cool-down) to reduce anxiety and provide predictability.
Small Groups or Rotations
• Divide students into smaller groups to minimize overstimulation and provide focused supervision.
Positive Reinforcement
• Use immediate praise, rewards, or tokens for effort, participation, and achievements, emphasizing positive behavior.
Transition Management
• Use countdown timers or visual cues (e.g., a "Next Activity" card) to signal transitions between activities.
Engagement Techniques Gamification
• Turn the session into a game, such as aiming for specific colored pins or keeping track of personal bests, to sustain interest.
Interactive Roles
• Let students take on different roles, like scorekeeper, cheerleader, or pin arranger, to keep them engaged and involved.
Personal Interests
• Incorporate favorite themes or characters into bowling equipment (e.g., using stickers or themed pin markers) to make the activity more appealing.
Adaptation Tips
Physical Environment
• Use barriers or bumpers on lanes to ensure success and prevent frustration. Adjust lighting and reduce noise to accommodate sensory sensitivities.</td><td>Modified Equipment
• Provide bowling ramps or assistive devices for students with difficulty handling or rolling the ball independently.
Flexible Rules
• Allow students to bowl seated if necessary or modify scoring to focus on participation and effort rather than competition.
Break Zones
• Create a designated quiet area where students can retreat if they feel overstimulated or need a sensory break.
Plan for Sensory Needs
• Provide noise-canceling headphones or earplugs for students sensitive to noise.
• Create a designated quiet area for breaks.
Maintain Flexibility
• Be prepared to adapt the activity based on students’ energy levels, attention spans, or sensory needs.
• Offer alternatives for students who might find bowling too challenging or overstimulating.
Observe and Adjust
• Monitor each student’s comfort level and engagement. Adjust the pace or provide additional support as needed.
• Use consistent and predictable routines to reduce anxiety.
Foster Inclusivity
• Encourage all students to celebrate each other's achievements.
• Avoid overemphasis on competition; focus on personal improvement and fun.</td></tr>
<tr><td colspan="2">Learning Outcomes</td></tr>
</table>

Physical Development • Improve hand-eye coordination through bowling techniques. • Develop gross motor skills, such as rolling and controlling the ball. • Enhance balance and spatial awareness in the bowling setup and follow-through. **Social and Communication Skills** • Practice turn-taking and sharing in a group setting. • Strengthen verbal and non-verbal communication by expressing needs or cheering for peers. • Foster cooperation through teamwork and collaborative activities. **Adapted Physical Education Goals** • Engage in inclusive activities tailored to individual needs and abilities.	• Experience success in a supportive environment, encouraging ongoing participation in physical activity. • Promote awareness of lifetime recreational activities suitable for varying abilities. **Emotional Regulation** • Develop strategies to manage sensory sensitivities in a busy environment. • Build resilience and coping mechanisms when experiencing challenges, such as missing pins. • Celebrate personal achievements to boost confidence and self-esteem. **Cognitive and Problem-Solving Skills** • Understand and apply the rules of bowling. • Calculate scores with support, promoting basic math skills. • Strategize and adjust techniques to improve performance.
Qualitative Feedback Indicators	
Engagement and Participation "You were focused on each turn—great job staying in the game!" "I noticed how you waited patiently for your turn. That was very respectful of others!" **Coordination and Motor Skills** "Your aim is improving! You're getting the ball closer to the pins each time." "Nice work controlling the ball's speed. That's a big step forward!" **Understanding of Instructions** "You followed the steps for rolling the ball perfectly—way to pay attention!" "Great job remembering where to stand before you bowled!" **Social Interaction and Teamwork** "It was wonderful to see you cheering for your friends after their turns!" "You did a fantastic job taking turns and encouraging others."	**Emotional Regulation** "I'm proud of how you handled waiting—your calmness was awesome!" "Even when you missed, you stayed positive. That's a big achievement!" **Progress and Effort** "I can tell you're putting in so much effort—keep up the hard work!" "Your throws are getting more consistent. Well done for practicing so patiently!" **Confidence and Independence** "You took initiative to set up your turn. That shows great confidence!" "I love how you celebrated your strike—that enthusiasm is fantastic!" **Adaptability** "You tried a new way of holding the ball—great thinking!" "I noticed how you adjusted after your first throw—excellent problem-solving!"
Developed Competencies	
Motor Skills Development • Improved hand-eye coordination through aiming and rolling the bowling ball. • Development of gross motor skills via repetitive movements like walking to the lane, rolling the ball, and maintaining balance. **Social Interaction Skills** • Turn-taking and waiting patiently in line during group play. • Engaging in peer-to-peer communication through **encouragement and positive feedback.** **Cognitive and Problem-Solving Skills** • Understanding the rules and objectives of bowling. **Emotional Regulation and Self-Control** • Managing emotions during successes and failures in the game. • Practicing self-regulation in a potentially stimulating environment (e.g., lights, sounds)	

Spatial Awareness and Planning
• Judging distance and direction to roll the ball accurately.
• Planning how to position their body and adjust strength for successful throws.

Physical Fitness and Stamina
• Engaging in moderate physical activity to improve overall physical health.
• Building stamina and focus through the repetitive nature of bowling.

Self-Esteem and Confidence Building
• Gaining a sense of achievement when knocking down pins or improving scores.
• Encouragement from peers and instructors fosters confidence in abilities.

Teamwork and Collaboration
• Working with peers to form teams and achieve a collective goal.
• Developing an understanding of mutual support and cooperation.

Sensory Integration
• Adapting to sensory stimuli (e.g., the sound of bowling pins, texture of the ball).
• Building tolerance to structured environments with specific sensory inputs.

Assessment Starategy & Measurement Criteria

Observation Checklist
• Use a checklist to observe and record specific skills and behaviors during the activity, including physical, social, and cognitive engagement.

Task Analysis
• Break down the bowling task into smaller steps (e.g., selecting the ball, positioning, rolling the ball) and assess mastery of each step.

Self-Reflection/Feedback
• For students with higher verbal ability or comprehension, use simple prompts or visual aids to encourage them to reflect on their performance (e.g., "How did I do?" with smiley face options).

Peer or Group Interaction
• Evaluate how well the student interacts with peers during group activities or turns, emphasizing communication, turn-taking, and appropriate social behaviors.

Adapted Performance Metrics
• Measure improvement or consistency rather than just score.

Physical Skills-Ball Handling
• Ability to grasp, hold, and release the bowling ball.

Criteria
• Successful completion of the task 3 out of 5 attempts.

Stance and Aim
• Demonstrates appropriate body posture and direction toward the pins.

Criteria
Correct stance in 60% of attempts.

Bowling Motion
• Executes a rolling motion with the ball, maintaining control.

Criteria
• Smooth motion with controlled ball release in 4 out of 5 attempts.

Social Engagement

Turn-Taking
• Waits for their turn without prompts.

Criteria
• Completes 2 full rounds of play with minimal intervention.

Interaction
• Uses appropriate communication (verbal or non-verbal) with peers or teachers.

Criteria

• Engages in 2-3 positive interactions during the session.

Cognitive Understanding

Task Comprehension

• Follows step-by-step instructions for bowling.

Criteria

• Completes 4 out of 5 steps independently.

Problem-Solving

• Adjusts positioning or approach after feedback.

Criteria

• Demonstrates adjustment in at least 2 instances during the session.

Behavioral Metrics

Focus and Attention

• Maintains attention during their turn and observes others without excessive distraction.

Criteria

• Sustains attention for 80% of the activity duration.

Emotional Regulation

• Manages frustration or excitement appropriately.

Criteria

• Requires no more than 2 interventions to regulate emotions.

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Supporting Children with Autism through Physical Education

Chapter 3

How to Keep Students with Autism Physically Active through Mix of Methodologies; Blended/ Hybrid, Hands- on and Non-formal Learning

MSSA
Macedonian Scientific Society for Autism

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CHAPTER 3

Students with autism physically active through mix of methodologies: blended / hybrid, hands- on and non-formal learning

Abstract

The physical education curriculum for pupils with autism spectrum disorder (ASD) is designed to address the unique challenges these students face, while promoting physical activity and fostering social inclusion. This curriculum emphasizes individualized instruction tailored to each student's abilities, preferences, and sensory needs.

Key Components:

- Personalized Learning Plans: Each pupil receives a customized physical education plan that targets their specific motor skills, fitness levels, and social interaction goals.
- Sensory-Friendly Environment: Activities are conducted in settings that minimize sensory overload, using adaptive equipment and modified spaces to ensure comfort and engagement.
- Visual and Structured Instructions: Utilizing visual aids, clear routines, and step-by-step instructions to enhance understanding and participation.
- Motor Skills Development: Focused on improving coordination, balance, and fine and gross motor skills through various exercises and sports.
- Social Skills Integration: Encouraging teamwork, communication, and social interaction through group activities and cooperative games.
- Parental and Caregiver Involvement: Engaging families in the educational process to reinforce learning and support at home.
- Regular Assessments: Conducting periodic evaluations to monitor progress and adjust the curriculum as needed to meet evolving needs.

Objectives:

- To create an inclusive and supportive physical education environment that meets the unique needs of pupils and children with autism.
- To enhance physical fitness and motor skills through structured, enjoyable activities.
- To foster social inclusion and interaction within the school and broader community.
- To empower pupils with autism by promoting independence, self-confidence, and a positive attitude towards physical activity.
- This curriculum aims to provide pupils with autism the opportunities to succeed in physical education and beyond, contributing to their overall well- being and quality of life.

Introduction

Autism is a complex developmental disability that typically appears in the first three years of life; it is the result of a neurological disorder that affects the normal functioning of the brain, affecting development in the areas of social interaction and communication (Dunn & Leitschuh, 2006). Students with autism have difficulty with social interactions, communicating, and using sensory information. Autism also affects children's abilities to play and acquire leisure skills. A child with autism may exhibit motor skills, fitness performance, participation behaviors, and intellectual functions that are below the expected range for a given age (Auxter, Pyfer, & Huetig, 2005). These challenges make it difficult for physical education teachers to fully include children with autism in their general physical education (GPE) curriculum. The purpose of this article is to present eight possible solutions for including children with autism in GPE settings. The use of technology for learning is becoming common in education because we live in a world of digital learners who use technology daily. Blended learning and the use or mobile devices permits educators to provided differentiated instruction to address individual learning needs. Students with Autism learn better when they are visually stimulated therefore the use of technology aids teachers in facilitating student learning by improving communication, social skills and behavior. When blended learning is used effectively, learning is student centered which leads to a deeper understanding of concepts. In a traditional learning environment, instruction is face to face, teacher lecture, students listen, questions are asked, and a task is given. The problem with a traditional environment is that it impedes student centered learning. The student who are raising their hands to answer questions are usually the students who make better grades. Simply stated, the needs of all students are not being met. Teachers are constantly faced with meeting student's needs in the classroom. Curriculum instruction should support teacher facilitation of a blended learning environment that embraces diverse learners.

Setting up the Environment

As noted in the previous articles, children with autism have difficulty understanding their environment and often get upset when confused or faced with a change in routine. Therefore, the first thing to consider is creating a clear structure and routine as well as establishing an environment that utilizes students' visual strengths. The following are some examples of how to establish structure and routine in physical education.

Physical Layout

The physical layout of the setting is important for children with autism. Whenever possible, the environment should provide visual cues on where to go and what to do. The environment should not be too distracting, and specific areas for performing certain skills should be clearly marked (e.g., taping a picture to the wall of a person throwing indicates a throwing station). Also, establish clear boundary

markings to help children with autism know where they may and may not go. For children with autism who need to do some activities away from their peers, create a quiet area free from distractions and stimulation where they can go to calm down. For some, this could be as simple as allowing the child to sit in a corner facing away from his peers for a few minutes.

Establish a Routine

Although physical educators need the flexibility to introduce new activities and units throughout the school year, children with autism do best when a consistent routine is followed every time they enter the gym. They seem to experience less anxiety about "what is coming next" if they know exactly what is expected of them and have a specific routine to follow. This can be as simple as having a student report to an assigned spot on the floor for attendance and performing a simple, consistent warm-up activity. After the warm-up, new activities and teaching styles can be introduced. The key is to let the child with autism experience some consistency and familiarity in the gymnasium.

Have a Clear Ending to Your Class

Just as it's important to have a routine for the beginning of class, make sure the activity portion of the session ends early enough to accommodate a clear ending to the class. The "end-of-session" routine should be the same each day for any participant with autism. The clear ending helps the child with autism transition from physical education to his next activity. For example, routinely ask that the child help clear some equipment, sit in a designated spot or with his squad, or do a simple ending stretching routine. A calming activity at the close of class (lying down and doing breathing exercises or yoga-type positions) is probably good for students without disabilities as well.

Use Visual Schedules and Visual Cues

In addition to an established routine, Blubaugh and Kohlmann noted in their article that many children with autism benefit from visual schedules. Children with autism often use a schedule during their school day, and it is relatively easy to apply schedules in physical education as well. A physical education schedule might be as simple as a manila folder with pictures and words to describe the routine and the daily activity. To help the student keep track, format the schedule in two columns. In one column, list or place pictures of activities to be completed. In the other, check off the activities as they are completed. Or, if using pictures, the student moves each picture to the "finished" side of the chart to show what he has completed in physical education. Schedules help the child become familiar with the daily physical education routine, which calms and reduces anxiety and confusion and gives the child a sense of accomplishment. The child's teacher assistant or a peer can help the child use his physical education schedule, freeing the physical educator to instruct and supervise the entire class.

Communication

Block, Block, and Halliday, in this feature, noted that communication is a major area of concern for children with autism. Some children with autism are able to speak and understand many verbal cues, while other children with autism seem to be mute and respond only to pictures or sign language. In either case, the physical educator has to explore how best to communicate with the child with autism. Utilizing a communication system similar to what the child's special education teacher or teacher assistant uses is a good place to start. The following are some general suggestions related to communicating with students with autism.

Get the Student's Attention

Make sure you have the child's attention when giving directions, especially when giving demonstrations. Also, use a multisensory approach, such as extra colors to highlight critical components (e.g., red tape on your left leg and right arm to emphasize opposition when throwing). Be aware of distractions that may catch the child's attention. Position the child with his back to those distractions as he receives directions.

Simplify Verbal Directions

Understanding verbal directions is an issue for most children with autism. Be prepared to simplify verbal directions and supplement them with extra demonstrations and physical assistance. (Talk to the child's speech therapist, parents, or special education teacher for more ideas.) Simplifying directions can be as easy as saying "Watch me" prior to demonstrating what you want the child to do; then, end the demonstration with "Sarah's turn." Note: Pronouns can be particularly confusing for some children with autism. Instead of saying "It is your turn," try, "It is Sarah's turn."

Minimize Jargon

Physical education lingo is likely to confuse the child with autism. So, try to minimize it. Saying something like "Keep your eye on the target" might cause the participant with autism to approach the target and actually place her eye on it! Lingo such as "run like the wind," "freeze," "try and touch the ceiling when you jump," or "hit the cover off the ball" may be motivating to children without disabilities, but it simply confuses children with autism.

Use Alternative Forms of Communication

Many children with autism rely on alternative forms of communication. These alternative forms of communication include pictures (e.g., picture of a ball), real objects (e.g., a real ball), and sign language

(signing the word “ball”). As noted above, itis important for the physical educator to find out which form of alternative communication each child uses and then consistently use this system when interacting with the child. For example, learn simple signs that relate to physical education (e.g., sit, stand, run, more) and use them to communicate with a child who relies on sign language. One advantage that physical educators have over other disciplines is that so much of what is communicated to children in physical education can be presented via demonstration and physical assistance. After verbally explaining something to the class, it’s likely children with autism will benefit from a demonstration or being physically assisted in their initial attempts. This can be done either by the teacher or an assistant.

Preventing Challenging Behaviors

Many children with autism exhibit challenging behaviors such as wandering, running away, making loud noises, crying or laughing for no apparent reason, aggressive behavior, and even self-abusive behavior. As noted by MacDonald, Jones, and Istone in this feature, the first step when confronted with challenging behaviors is to consult the child’s special education teacher and/or parents. Ask what behaviors to expect, what triggers those behaviors, and what techniques work to prevent or stop the behaviors. In some situations, it is appropriate to brief the child’s classmates without disabilities on what to expect. It is less disconcerting to them if they know to ignore certain behaviors, how to help with some behaviors, and when to be careful or ask for help. The following are some suggestions that may prevent a child with autism from displaying challenging behaviors.

Using Positive Reinforcement

Try to find reinforcers unique to the child. Again, parents and teachers are a good resource for determining a reinforcer that works for a particular child. It might be as simple as a high five or something more complex or tangible like a penny, sticker, or even food. The idea of the reinforcer is to teach the child cause and effect (If I do something asked of me, I receive a thing I want). Food reinforcement is usually a short-term strategy that is faded into secondary forms of reinforcement (pats on the back or free time to play with a favorite object). It’s likely a specific reinforcement schedule has been created for most children with autism by their primary teacher or an intervention team. It’s important that the physical educator follow that schedule. Consistency of reinforcers across different settings makes them more effective for everyone involved. It helps that most children with autism are accompanied to physical education by a teacher assistant who can help deliver food reinforcers or remind the teacher of the child’s current status relative to a reinforcement schedule

Find Activities That Are Reinforcing

While food and reinforcers from the classroom (e.g., watching a favorite video or playing with a favorite toy) may be used in physical education, many children with autism will find physical activities that are enjoyable and reinforcing as well. For example, many children with autism enjoy repetitive activities such as bouncing a ball or shooting it into a basket over and over. As the child's interest in such a physical activity is discovered, it can be used as a reinforcer. For example, explain to a child that if he completes 10 sit-ups and 10 push-ups, he will be allowed to dribble a basketball for 2 minutes.

Focus and Reinforce Appropriate Behaviors

Regardless of the type of reward selected, be sure it is used to draw attention to the child's appropriate behaviors. Try to catch him doing something he is supposed to do; then praise him specifically for that behavior. With a focus on positive behaviors, the student begins to understand the reward is greater when he does what is asked. Therefore, avoid negative commands such as "no" or "do not touch." Instead, use phrases like "wait" or "hands down." Keep the focus on the positive to help eliminate the unwanted negative behaviors.

Teach Appropriate Use of Equipment

Children with autism often use equipment inappropriately or in stereotypical and even dangerous ways. For example, a child may insist on only bouncing repetitively on an exercise ball rather than using it to do stretching and strengthening. By reinforcing the student when she uses the equipment appropriately, the behavior can be redirected, teaching her the correct way to use the equipment. Classmates can be extremely helpful in demonstrating appropriate use of equipment and cueing the child with autism how to use it. Or, simply asking the child to put equipment away when it is not being used prevents its inappropriate use.

Dealing with Sensory Sensitivity

Sensitivity to stimuli in the physical education environment such as sounds (many gyms are quite loud), sights (balls or peers moving quickly around), and touch (being too close to peers) can lead to unwanted behaviors. A child with autism who is over-stimulated by his surroundings may become agitated, suddenly try to escape the setting, or act out toward adults or peers. It is important to find out what types of sensory sensitivity the child has and do whatever is possible to control that stimuli. This may be as simple as substituting a hand signal for a whistle or strongly encouraging peers to reduce yelling or screaming (which shouldn't be happening anyway!). Unfortunately, there are many noises in a typical physical education class that cannot be muffled: shoes squeaking on the floor, banging of equipment, or echoes produced by movement within a large, open space. Yet, a noise level that goes unnoticed by most children can seem deafening to a child with autism who is sound sensitive.

In such cases, the child with autism should be allowed to wear headphones to physical education that muffle sounds in the gym. Or, allow the child to leave the gym with her teaching assistant for a few minutes, or even much of the session, if she has trouble dealing with the noise on different days.

Dealing With Challenging Behaviors

Even with a routine, a picture schedule, a teacher assistant, the use of reinforcement, and other modifications, a student with autism will still have difficult days. It is, therefore, important to be familiar with any behavior plan created by an IEP team to deal with that child's challenging behaviors. Some children need only hear a key word, or a reminder of a reinforcer she is trying to earn, to be redirected back to appropriate behavior. Others need a quiet place to calm down or to go for a short walk with their teacher assistant. Still others need more support, such as going for a longer walk with the teacher assistant, lying on a gym mat for a few minutes, or receiving deep pressure from the teacher assistant (like a massage). Deep pressure can reduce the student's tension and refocus her on the task at hand. While autism represents a spectrum disorder, accommodations to it also occur on a spectrum. So, while one child may only need a few minutes on a mat or in a quiet space, others may need almost the entire class period to calm down and return to "normal" activities. For the teacher to know the difference and respond correctly requires a team approach. It's important that the physical educator be familiar with and follow the plan created by the child's IEP team. That includes providing the support (space, gym mat, etc.) necessary to help the child calm down.

Conclusion

School are shifting from the traditional model to a blended learning models which support learning for all students. At the forefront of this shift is the need to incorporate technology into the curriculum to support students centered learning with facilitates instruction to address a variety of student needs. The students of today are active digital learners who rely on technology to communicate, collaborate and interact with their peers socially. The movement towards blended learning with an emphasis on technology vital to the creation of engaging students and motivating them to learn. It also aids in creating collaborative student learning environment that are driven by student centered learning. It is important to remember when working with children with autism in physical education there is no "one size fits all." Autism affects each child differently. One child might only need some extra visual cues to accommodate limitations in verbal language. Another might need constant support from a teacher assistant. Even more exasperating, a child with autism might behave a certain way one day and be completely different the next. The key is to learn as much as possible about children with autism from each child's IEP team. Then, be prepared to implement individually determined strategies to structure the environment, accommodate communication challenges, and prevent challenging behaviors.

3.1. Lesson Plan: "The Jungle Adventure"- physically active learning

<table>
<tr><th colspan="3">Learning Scenario and Implementation Plan-1</th></tr>
<tr><th colspan="3">"The Jungle Adventure"- physically active learning</th></tr>
<tr><td>Target Groups</td><td colspan="2">This curriculum is designed for children with autism spectrum disorder (ASD) ages 3-5, focusing on physically active learning that fosters physical, cognitive, social, and emotional development. The activities will be tailored to the developmental levels of young children, considering that many of them are in the early stages of communication, motor skills, and social interaction. The curriculum provides a combination of blended/hybrid learning, hands-on activities, and non-formal learning strategies, incorporating storytelling to maintain engagement.
The activity is accomplished with the help of teachers, parents or peers.</td></tr>
<tr><td>Learning Objectives</td><td colspan="2">· Physical Development: To develop motor skills such as balance, coordination, and fine and gross motor skills.
· Social Skills: To encourage social interaction and cooperation with peers through group games and physical activities.
· Emotional Regulation: To promote self-regulation, emotional awareness, and coping mechanisms during activities.
· Cognitive Skills: To enhance memory, problem-solving, and the ability to follow simple instructions.</td></tr>
<tr><th colspan="3">Competencies</th></tr>
<tr><td colspan="2">Physical Competence
Balance, coordination, movement, and sensory integration.
Social Competence
Cooperation, sharing, taking turns, and communication with peers.</td><td>Cognitive Competence
Following simple instructions, memory skills, and problem-solving.
Emotional Competence Managing emotions, understanding feelings, and coping with frustration.</td></tr>
<tr><td>Introduction</td><td colspan="2">Introduction (5 minutes):
Activity: Storytelling - "The Jungle Adventure"
Story: Children are on a jungle adventure, and they must help the animals by completing different physical tasks. The story introduces animals like monkeys, elephants, and birds, each associated with different movements (e.g., hopping like a frog, stretching like a giraffe). Imitation of animal sounds can be added to this exercise if the children are verbal.
Objective: Capture children’s attention through a short and simple narrative that encourages imagination and physical (and verbal) movement.</td></tr>
<tr><th colspan="3">Main Activity</th></tr>
<tr><td colspan="3">Monkey Jumps: Jumping in place or over small objects like a monkey
You can start the main activity with a demonstration of how a monkey jumps (either with verbal cues like "We’re using our legs to jump high and strong!") and then ask the children to do the same. Now we're going to jump like monkeys! Can you pretend to be a monkey and jump over these rocks? Start with simple jumps in place: "Let’s make a big jump on the spot like a monkey on a tree!" You can encourage children to use both legs for jumping if they need to build strength and coordination.

Elephant Walks: Walking slowly with big, heavy steps, like an elephant.
First you should create a path (line on the floor or a small circle of items that children can "walk through"). Then place soft mats or pillows in the path where children can step slowly and carefully, mimicking the slow, heavy movement of an elephant. Then the teacher/ parent should explain what the child needs to do, i.e., give</td></tr>
</table>

instructions for performing the activity - "Let's walk like elephants! Big, heavy steps. Can you stomp your feet like an elephant?" Model the movement by stomping your feet slowly and heavily and explain that: "Elephants walk slowly and carefully. Let's see how heavy our steps are—can we make our feet 'thud' like an elephant walking through the jungle?"
Teachers can also add "obstacles" (pillows) along the path for children to carefully step over as they walk.

Bird Flaps: Flapping arms as wings and running around in a circle, like a bird flying.
For this activity, there is no major setup required, but you can enhance the experience by having children hold a scarf or fabric to mimic bird wings. First, the teacher or the parent should mark out an area where children can run freely, such as a circle in the classroom or open space home. Then the teacher/ parent should give the child instructions: "Let's flap our wings like birds flying through the jungle! Can you flap your arms fast like a bird flying high?" Demonstrate by flapping your arms up and down like bird wings. "Now let's run around in a circle! Can you make a big circle like a bird flying through the sky?"
If the children are able to, encourage them to flap their arms while moving in a circular path. "Flap your wings and fly in a big circle around the jungle!"For children who need more guidance, provide support or a partner for running in a circle, making sure they feel safe and supported.

Cool Down and Reflection	**Objective**: Build gross motor skills, coordination, and spatial awareness while maintaining the theme of the story. The tasks will also encourage children to listen to and follow simple instructions. **Cool down (5-10 minutes)** **Activity**: Relaxation and reflection. Sit in a circle and talk about the animals they helped today. You can use simple hand movements or stretches to slow down and help children transition to the next activity. **Objective**: Calm the children down after physical activity, promoting emotional regulation. Encourage children to recognize feelings like happiness, excitement, or tiredness.

Teaching Strategy

The strategy for this curriculum is based on active, sensory-friendly learning, play-based teaching, and storytelling to maintain children's engagement and development. The approach is flexible, with plenty of opportunities for visual, auditory, and kinesthetic learning. Blended/Hybrid: Minimal use of technology, but can include videos or animated story clips of animals to engage children before physical activities. Mostly focused on hands-on learning in the classroom or playground. Blended or hybrid learning means incorporating a mix of physical activities and technology, ensuring that the focus remains on hands-on, real-world learning while using technology to supplement and enhance the experience. Many children, including those with ASD, respond well to multimedia (videos, animations, pictures) when it is used sparingly and purposefully. Visuals can help children understand instructions and make abstract concepts more concrete. By minimizing the use of technology and prioritizing hands-on learning, you encourage physical activity and direct interaction with the environment and peers, which are essential for skill development.

How to Apply: **Minimal Technology:** Use technology like videos or animated clips only at the beginning of the lesson or activity to introduce the theme (e.g., a short animated story about jungle animals). This can serve as a visual hook to get children excited about the activity. **Technology for Instruction:** For children who are particularly visual learners, show short videos or clips about animals performing the	**Hands-On, Real-World Learning:** After using the video or clip, transition into hands-on learning by asking children to physically act out the movements. This shift ensures that technology is used as a tool for understanding rather than as a substitute for real- world experience. Physical play, such as jumping, crawling, and stretching to build motor skills. **Non-Formal Learning:** Storytelling is a key method, as it introduces children to the activity in an imaginative and enjoyable way, with an emphasis on fun and engagement. Non-formal learning refers to a more flexible, playful, and child- centered approach to teaching. It does not adhere strictly to formal academic structures and instead

movements (such as how monkeys jump or how birds fly). This provides a clear model of the activity, helping children understand what to do.	prioritizes the child's interest, engagement, and natural curiosity. Non-formal learning is especially effective for children with ASD, who may struggle with rigid, formal educational settings. This approach is flexible and focuses on engagement and individual development rather than strict academic achievement.

How to Apply:

Flexible Goals: Set broad, flexible learning objectives rather than strict outcomes. For example, the goal could be to help children develop motor skills and social interaction through fun, play-based activities rather than focusing solely on mastery of a specific skill.

Child-Led Exploration: Give children opportunities to explore the environment or activities in their own way. For instance, if they want to jump over obstacles in a different manner or imitate a different animal, encourage them to do so.

Emphasis on Fun: Always keep the emphasis on enjoyment. Celebrate the children's efforts, no matter how small, and maintain a positive, upbeat environment. This promotes a love of learning and reduces any pressure that might cause stress or disengagement.

Learning Scenario

The environment should be calm, structured, and sensory-friendly to support children with ASD. Here are some key considerations and actions to take when setting up the space:

Sensory-Friendly Space Lighting:

You should use natural light or soft, ambient lighting (avoid harsh fluorescent lights). If possible, adjust the lighting to a lower level to make the environment more comfortable.

• When outdoors, select a shaded spot to minimize exposure to direct sunlight. If available, you can dim the lights to create a more comfortable environment.

• **Sound Control:** • Pay attention to the noise level. For children who are sensitive to sound, consider providing noise-canceling headphones if indoors.

• If playing music or sound effects (like jungle sounds), keep the volume at a moderate level to avoid it being too overwhelming.

• **Space Organization:**

• Create designated areas for different activities (e.g., animal movement area, obstacle course, sensory play station, etc.). Clearly define these spaces with soft barriers (like ropes or foam mats) or visual cues, such as pictures or colored tape on the floor.

• Ensure enough space between stations so that children can move freely and feel comfortable without being overcrowded.

• Have clear pathways that allow easy access to the different stations or areas in the classroom or outdoor space.

Visual Prompts:

• For better understanding, you should use cards with pictures or symbols to demonstrate the activity (e.g., an animal card for mimicking animal movements or a map of the jungle for the exploration activity).

• Use simple visual cues to guide children through each part of the activity.

Sensory Stations or Materials

Jungle Sensory Bins:

• Set up sensory bins with tactile items such as fake leaves, sand, animal figurines, or textured materials. Label the bins clearly, and ensure that each bin is organized and easy to access.

Props & Materials for Movement:

• For activities like the obstacle course or animal movements, gather props such as pillows, ropes, balance beams, mats, and soft objects to simulate jungle terrain.

• For animal-themed activities, you may also want stuffed animals, puppets, or toy jungle animals to make it interactive and engaging.

Safety Considerations:

Safe Environment:

• Make sure the floor is clean before the start of the activity (e.g., sharp objects, loose cords, or furniture that children might bump into).

• Ensure that mats and soft surfaces are in place to prevent potential injury of the children during physical activities.

Teaching Tips for Teachers

Use Visuals and Props: Use large pictures, props (like animal toys), and visual aids to reinforce instructions and help children understand the tasks. **Simple, Clear Instructions:** Break down tasks into short, simple steps. Repeat instructions and demonstrate them if necessary. **Short and Structured Activities:** Maintain short activity intervals (5-10 minutes per activity) to keep children engaged and reduce overwhelm.	**Positive Reinforcement**: Praise effort and participation frequently. Use stickers or tokens as rewards for completing tasks or following instructions. **Sensory-Friendly Environment**: Be mindful of noise levels, lighting, and other sensory stimuli that could overwhelm the children. Have quiet spaces available if needed. **Use Songs or Rhymes**: Children with autism often respond well to rhythmic repetition. Incorporate simple songs or rhymes related to the movements to support engagement and memorization.

Learning Outcomes

Children will develop better coordination and motor skills through physical play

· **Jumping (Monkey Jumps):** Helps strengthen leg muscles, improves balance, and develops coordination as children learn to jump with control.

· **Walking (Elephant Walks):** Encourages balance, coordination, and strength, particularly in the lower body, as children practice walking with exaggerated, heavy steps.

· **Flapping Arms (Bird Flaps):** Enhances upper body strength, coordination, and fine motor control, as children practice moving their arms in a controlled, repetitive manner.

Children will engage in basic social interactions, such as taking turns, following instructions, and playing cooperatively.As children work together or observe each other's movements, they have the opportunity to practice social communication. For example, they might engage in simple conversations like "Look at me jump like a monkey!" or "Can you stomp like an elephant too?" Also this kind of activity helps children to practice patience, turn-taking, and sharing—important social skills for interacting in group settings, practice role-playing and imitation, which are fundamental social skills and encouraging empathy.

Children will learn emotional regulation through activities that help them understand and manage their feelings (e.g., calming down after physical exertion). The structured, predictable environment provides children with a sense of security and reduces anxiety, which can help children with ASD regulate their emotions more effectively. The playful and sensory-friendly nature of the activity offers a fun, low-stress way for children to express themselves, which can help them feel more relaxed and comfortable in a group setting. This activity also help to building Confidence:

Children will demonstrate an understanding of basic instructions and improve their cognitive abilities (memory, focus, and problem-solving).

Developed Competencies

Physical Competencies Ability to perform simple physical tasks like jumping, stretching, and balancing.	**Cognitive Competencies** Memory skills, following simple directions, and connecting actions with animal movements hopping.
Social Competencies Cooperation with peers, following group instructions, sharing, and taking turns.	**Emotional Competencies** Recognizing feelings, self-regulating during activities, and transitioning from one task to another.

Assessment Strategy

Observation: Teachers will observe children's participation in physical tasks, noting their ability to perform movements (e.g., jumping, crawling) and engage with others during group activities. **Parent/Teacher Feedback:** Parents and teachers can share their observations through a brief checklist that tracks children's ability to follow simple instructions, engage socially, and demonstrate motor skills during physical activities. **Interactive Reflection:** At the end of each lesson, children can point to a visual chart or answer simple questions (e.g., "Which animal did you like best?"), helping assess whether they understood the lesson and connected the movements to the story. **Tracking Progress:** Use a simple progress chart (e.g., stars, stickers) for each child to visually track their engagement and achievement in physical and social tasks. **Mood thermometer:** create a thermometer chart with different colors representing various moods (e.g., blue for calm, green for content, yellow for happy, red for excitement). Ask each child to place a marker on the thermometer after each activity to show how it made them feel. This helps gauge both individual and group responses to different activities.	**Game emoji ratings:** provide emoji cards or stickers (e.g., thumbs up, smiling face, neutral face, puzzled face) and ask children to choose an emoji that represents how they felt about each game. This tool allows for quick feedback that is easy for facilitators to interpret. **Activity Preference Indicators:** **Favorite activity wall:** set up a wall where children can place a sticker, draw a picture, or add a small photo representing their favorite activity of the day. This visual display helps facilitators see which activities resonated most with the group and encourages children to reflect on what they enjoyed. **Memory snapshot gallery:** provide each child with a small piece of paper to draw or write about their favorite moment from the day. These "snapshots" can be displayed on a board to create a gallery of memories. This method encourages deeper reflection and offers insights into what experiences were most meaningful. **Favorite activity checklist:** give each child a simple checklist or worksheet that lists the activities of the day with a checkbox next to each one. At the end of the day, ask children to check off their favorite activities. This method gives facilitators a quantitative summary of the most engaging parts of the learning scenario. **Reflective Group Discussion:** **Highlight sharing:** during a group circle time at the end of the session, ask each child to share one thing.
Measurement Criteria	
Engagement and Participation ● **Criteria:** observe and assess each child's level of engagement and willingness to participate in activities, noting whether they are actively involved, responsive to prompts, and showing curiosity or enjoyment. ● **Rubric levels:** **Beginning:** limited engagement; frequently requires prompting and shows minimal interaction with peers or activities. **Developing:** shows some engagement with occasional prompts; participates in parts of activities but may lose focus. **Proficient:** actively participates in most activities; responds well to prompts and **shows consistent interest.** **Advanced:** fully engaged throughout all activities, initiates participation independently, and demonstrates enthusiasm. **Social Interaction and Turn-Taking**	● **Rubric levels**: **Beginning**: rarely engages in turn-taking; needs constant guidance to share or interact with peers. **Developing**: begins to take turns and interact with support; may require occasional reminders to wait or share. **Proficient**: consistently takes turns, interacts respectfully, and shares materials with minimal prompting. **Advanced**: engages in turn-taking independently, supports peers, and encourages others in group settings. **Ability to Follow Routines and Instructions** **Criteria:** evaluate each child's ability to follow multi-step routines, respond to visual and auditory cues, and complete structured tasks. **Rubric levels:** **Beginning:** struggles to follow routines and frequently requires one-on-one support to complete tasks. **Developing**: can follow routines with reminders; may need occasional support to complete steps or respond to cues.

● **Criteria**: assess each child's ability to interact with peers, take turns, share materials, and show cooperative behavior in paired or group activities.	Provide immediate, positive feedback throughout activities (e.g., verbal praise, visual tokens). After the event, summarize achievements and give suggestions for additional social and cultural learning at home.

3.2. Lesson Plan: The Lost Treasure Quest

Learning Scenario and Implementation Plan-2	
"The Lost Treasure Quest"	
Target Groups	Children with Autism Spectrum Disorder (ASD), aged 8-12 years. The activity is designed for children with diverse abilities and levels of engagement, with a focus on creating a structured, sensory-friendly environment. The activity is accomplished with the help of teachers, parents, facilitators, and community - neurotypical children the same age.
Learning Objectives	**Physical Development:** Enhance strength, agility, coordination, and balance. **Social Skills:** Improve cooperation, communication, and turn-taking. **Cognitive Skills:** Develop the ability to follow multi-step directions, solve simple problems, and engage in imaginative thinking. **Emotional Regulation:** Foster emotional self-regulation, self-confidence, and perseverance through physical movement. **Sensory Integration:** Provide opportunities to engage multiple senses while maintaining a calming and structured atmosphere.
Competencies	
Motor Skills Improvement in coordination, strength, and flexibility. **Social Interaction** Communication and teamwork, especially in group settings.	**Problem-Solving** Following instructions, overcoming obstacles. **Self-Regulation** Use of physical activity to promote calmness, focus, and emotional control.
Introduction	**Introduction to the Quest (5 minutes)** **Objective:** Engage children through storytelling, introducing the physical tasks they will need to complete as part of their "treasure hunt." **Activity:** **Storytelling:** Present the story of a hidden treasure in a magical forest, which the children must find by completing physical challenges. Introduce the tasks they will need to do to unlock clues (e.g., running to find the next clue, balancing to cross dangerous areas, lifting objects to uncover secrets). **Interactive Element:** Children are invited to help tell the story by mimicking the actions. Example: "To cross the magical river, we'll need to jump over these rocks!".
Main Activity	
Station 1: **"Jump Over the River" (Jumping)** **Setup:** Set up a series of low hurdles or tape lines that represent "rocks" in a river. **Task:** Children will jump over the hurdles, pretending they are crossing a river to continue their treasure hunt. **Goal:** Improve leg strength and coordination, enhance	**Goal:** Strengthen core muscles and improve balance. This task also improves focus as children must concentrate on staying on the beam. **Variation:** Add challenges by having children hold objects in their hands or walk backward. **Station 3: "Lifting the Treasure Chest" (Strength and Coordination)**

<table>
<tr><td>balance, and build confidence.
Variation: Increase the distance or height of the hurdles for a greater challenge.
Station 2: "Balance on the Bridge" (Balance and Agility)
Setup: Create a balance beam or use a line of tape on the floor to represent a narrow bridge.
Task: Children must walk along the beam or line, pretending to cross a dangerous bridge to move closer to the treasure.</td><td>Setup: Use soft, lightweight boxes or crates representing a treasure chest.
Task: Children must lift and carry the “treasure chest” from one area to another, practicing teamwork if working in pairs.
Goal: Develop arm and core strength, improve coordination, and practice following instructions.
Variation: Add different sizes or weights of objects to increase difficulty for more advanced children.</td></tr>
<tr><td colspan="2">Station 4: "Treasure Map Puzzle" (Cognitive & Physical Coordination)
• Setup: Scatter puzzle pieces (representing a treasure map) around the play area.
• Task: Children must retrieve the puzzle pieces while completing simple physical tasks (e.g., crawling under tables, running to a point and back, or jumping to get the pieces).
• Goal: Encourage teamwork, problem-solving, and motor coordination. Children will work together to solve the puzzle and reveal the location of the treasure.
• Variation: Add a competitive element where children race to gather the pieces or complete specific actions before retrieving a piece.</td></tr>
<tr><td>Cool Down and Reflection</td><td>Cool-Down and Reflection (5 minutes)
Objective: Relax the body, calm the mind, and reflect on the adventure.
Activity:
Cool-Down Stretching: Lead children in slow stretching and breathing exercises, focusing on calming movements.
Reflection: Gather the children in a circle and ask:
♣ “What part of the quest did you like the most?”
♣ “How did you feel when you completed each task?”
♣ “How did working together help you find the treasure?”
Celebrate the completion of the treasure hunt with positive reinforcement, focusing on effort and teamwork.</td></tr>
<tr><td colspan="2">Teaching Strategy</td></tr>
<tr><td>Blended/Hybrid:
Storytelling: Use storytelling as a hybrid method to engage the children’s imagination and introduce physical challenges. Begin with a story-based introduction that sets the stage for the adventure. You could show a short animated video (around 2-3 minutes) that explains the quest—something like a treasure hunt with clues that must be solved using physical challenges. The animation should include characters on a mission, like explorers, pirates, or adventurers, setting out to find a lost treasure. The video could include visual effects that represent the various tasks the children will undertake, such as crossing rivers or climbing mountains. If a video is not available, you can tell the story using illustrations of a treasure map, showing landmarks (e.g., caves, rivers, forests) that the children will encounter in the physical tasks. Use simple, colorful visuals to capture their attention. Children with autism often respond positively to visual aids and stories, which help</td><td>The Lost Treasure Quest can be divided into various physical stations, each representing a challenge that aligns with the steps of the story.
For instance:
• Crossing the River: Children may need to jump over small hurdles or balance on a beam to simulate crossing a river.
• Climbing the Mountain: Children may engage in an activity that involves crawling under or over obstacles, mimicking a mountain climb.
• Navigating a Forest: Use cones or ropes to set up a maze where children must weave in and out, improving coordination. At each station, children must use their bodies and problem-solving skills to navigate the challenges successfully.
Non-Formal Learning:
Storytelling is a key tool, helping children understand the purpose of each task. The adventure theme makes learning fun, and the non-competitive, team-based approach encourages group learning and cooperation. The Lost Treasure Quest encourages a team-based</td></tr>
</table>

them connect actions to outcomes. The video or illustrations provide a clear, structured framework for understanding the task at hand. By embedding the activity into a narrative, children are more likely to stay engaged, motivated, and focused throughout the session. **Hands-On Learning:** All activities are hands-on and physical, incorporating movement with problem-solving. These stations encourage children to physically engage with the world while building important motor skills.	approach where children work together to solve challenges. For example, they might help each other cross an obstacle or share clues for a puzzle. This fosters collaboration, communication, and social interaction, which are often challenging for children with autism. The story reinforces this aspect, with the idea that only by working together will the group reach the treasure. This non-competitive, cooperative atmosphere ensures that all children, regardless of their abilities, can participate and feel included. Non-formal learning emphasizes fun and engagement, which keeps children motivated and reduces anxiety.
Teaching Tips for Teachers	
Use Visual Cues: Some children may benefit from visual aids like picture cards or a visual schedule to help them understand each station and task. Pictures of the treasure hunt or symbols for actions like jumping or balancing can guide children through the activity. **Positive Reinforcement:** Use encouragement throughout the activity, praising children for their effort and progress. For example, "Great job jumping over the river!" or "You balanced so well on the bridge!"	**Pacing and Flexibility:** Adjust the speed and complexity of the activities based on the children's engagement and energy levels. If a child is feeling overwhelmed, offer a shorter or simplified task at that station. 4. Sensory Considerations: Ensure that the environment is sensory-friendly by keeping it calm and not too overstimulating. Offer breaks if a child becomes overwhelmed, and allow them to use calming strategies (e.g., deep breathing) to self-regulate.
Developed Competencies	
Physical Competence Improvement in balance, coordination, and strength. Children will be able to complete tasks like jumping, balancing, and lifting with greater ease and confidence. **Cognitive Skills** Enhanced problem-solving abilities. Children will learn to follow multi-step instructions and engage with physical tasks that require concentration, memory, and sequencing.	**Social Competence:** Increased cooperation and teamwork. Children will practice turn-taking, communicating with peers, and working together to achieve a common goal. **Emotional Regulation:** Boost in self-confidence and emotional regulation. The adventure provides opportunities for children to manage excitement, frustration, and feelings of accomplishment in a structured environment.
Assessment Strategy	
Observation: Observe children's engagement, motor skills, and social interactions. Are they following instructions? Are they able to complete the physical tasks independently or with support? Monitor emotional responses and cooperation within the group. **Task Completion:** Track whether children are successfully completing each physical task (e.g., jumping over hurdles, balancing on the beam). Are they demonstrating progress in these areas? **Social Interaction:** Assess how well children work together at each station. Are they communicating, taking turns, and helping each other? You can use a simple checklist to note the level of collaboration and communication at each station. **Self-Reflection:**	

After the activity, ask children to rate their experience, either verbally or with a visual scale (e.g., happy face, neutral face, sad face). This will provide insights into how they felt about the tasks and their emotional regulation throughout the session. **Parental/Teacher Feedback:** If possible, gather feedback from caregivers or teachers about the child's progress. Did they notice improvements in physical coordination or social interactions outside of the activity?

Measurement Criteria		
Observation Observation is an ongoing method of assessing children's engagement, progress, and emotional regulation during the Lost Treasure Quest activity. The goal is to capture how well children are performing in various areas of development. You can observe focus, motor skills, social interactions.	**Task completion** To measure whether the children are successfully completing the physical challenges and how they are progressing with these tasks over time. This helps identify areas where children may need more support or encouragement. You can measure independence, progress in the task and confidence.	**Social Interaction** To assess how well children interact with their peers, particularly in terms of communication, cooperation, and collaborative problem-solving. Social interaction is crucial for developing social skills, which is an important area for children with autism. Use a simple checklist or rating scale to track social behaviors at each station.

3.3. Lesson Plan: "The Jungle Adventure"- physically active learning

Learning Scenario and Implementation Plan-3	
" Obstacle Course Challenge"- physically active learning	
Target Groups	Children with Autism Spectrum Disorder (ASD), aged 14-16 years. The activity is accomplished with the help of teachers, parents, facilitators, and community - neurotypical children the same age.
Learning Objectives	This activity is designed to engage students in physical movement, teamwork, and problem-solving through the creation and navigation of an obstacle course. The course will involve various physical tasks, which will help students build motor skills, improve coordination, and engage in self-regulation techniques. The goal is to keep the activity fun, adaptable, and inclusive while fostering a sense of accomplishment and teamwork.

Competencies	
Physical Competencies: Motor skills, balance, coordination, endurance. **Cognitive Competencies:** Problem-solving, time management, goal setting, focus. **Social Competencies:** Teamwork, communication, empathy, emotional regulation. **Emotional Competencies:** Self-regulation, confidence, resilience, perseverance.	**Communication Competencies:** Verbal and non-verbal communication. **Self-Reflection Competencies:** Personal growth, self-awareness. **Adaptability Competencies:** Flexibility, environmental awareness. **Creativity Competencies:** Innovative problem-solving, imaginative engagement.

Introduction	**Clear and Visual Instructions:** **Hybrid Learning:** Begin by providing clear instructions using a hybrid approach that includes both verbal explanations and visual aids. Use a visual schedule or a visual guide showing the obstacle course layout and how to navigate each section.

	Video Demonstration: Show a video of the obstacle course (either pre-recorded or a sample demonstration) so students can visualize what they will be doing. **Step-by-Step Explanation:** Walk the students through the course one step at a time. Use simple, concrete language and ensure that students can understand how to approach each station. Use gestures or demonstrations to reinforce understanding. **Social Skills Emphasis:** **Teamwork Goals:** Emphasize the importance of working together, sharing strategies, and communicating clearly. Remind students that mistakes are part of learning and should be embraced. **Pre-Activity Communication:** Conduct a short, structured conversation with the students about how they can support one another (e.g., "If a peer struggles with balancing, how can you help them?").
Learning Scenario	
Obstacle Course Run (20-30 minutes): **Hands-on Component**: Students start the obstacle course individually or in pairs. They will rotate through each station, completing physical tasks as instructed. **Balance and Coordination**: Students navigate the balance beam, improving their coordination. **Strength and Agility**: Crawling, jumping, and climbing will engage students' muscles and stamina. **Sensory Engagement**: For some stations (like crawling under a table or feeling different textures), the sensory experience can be integrated, particularly for students who may benefit from tactile stimuli. **Modifications**: For students who may find certain tasks challenging, alternative tasks (e.g., walking instead of balancing or sitting on a chair while reaching) will be provided to ensure inclusivity.	**Timing or Teamwork**: Students may complete the course individually or in teams. If working in teams, they will encourage one another, fostering cooperation and social communication. **Monitoring and Support**: The teacher observes the students, providing feedback, encouragement, and support when needed. If any student struggles with an obstacle, the teacher offers assistance or modifies the task. **Reflection Points**: Encourage students to think about how they can improve their performance or modify their strategy for the next round (e.g., "I need to balance more slowly" or "I should focus on jumping higher").
Cool Down and Reflection	**Non-formal Component:** Conclude with a short relaxation session. Guide students through calming activities such as deep breathing or gentle stretching. **Deep Breathing**: Inhale deeply for 5 seconds, hold for 5 seconds, exhale for 5 seconds. **Gentle Stretching**: Encourage students to stretch their arms, legs, neck, and back.
Teaching Strategy	
Hands-On Learning •**Guided Participation**: **Model the Tasks**: Before students start, demonstrate how to perform key tasks in the obstacle course (e.g., balancing on a beam, jumping through hula hoops). Modeling helps students understand the expected movements and allows them to feel more comfortable trying out the tasks. **Breakdown of Tasks**: For each obstacle, break the task down into manageable steps. For example, when navigating a balance beam: ♣ Step 1: "Place one foot in front of the other."	**Scaffolding and Support:** **Hands-On Assistance:** Provide physical guidance for students who need it. For example, gently support students who are walking the balance beam or crawling under an obstacle. **Peer Support**: If working in teams, encourage students to coach one another through tasks, which helps to build their social and communication skills. **Sensory Considerations**: For students with sensory sensitivities, ensure that they have access to breaks or alternative routes through the course that minimize sensory overload. For example, they could take a shorter path or focus on a quieter activity if needed.

♣ Step 2: "Focus on keeping your body steady." ♣ Step 3: "Keep your arms out to help balance." **Positive Reinforcement**: Use immediate and specific feedback for students. Praise their efforts, even if they didn't complete a task perfectly (e.g., "Great job focusing on your balance!" or "I saw you help your partner—well done!").	**Self-Paced Learning**: Allow students to move through the course at their own pace. Some students may complete the obstacles quickly, while others may take longer or need more encouragement to keep going.

Main Activity

Hybrid Component: The teacher shows a short video or slideshow of examples of obstacle courses, explaining the types of physical tasks involved (e.g., jumping, crawling, balancing).
Group Discussion: Discuss how the course will be set up, what each station entails, and the importance of teamwork and communication.
Visual Explanation: Use the whiteboard or printed guide to demonstrate each task clearly. For example:
Station 1: Jumping through hula hoops.
Station 2: Crawling under tables or chairs.
Station 3: Walking across a balance beam.
Station 4: Touching a certain object or reaching up to a height (stretching).
Goal Setting: Encourage students to set personal goals (e.g., "I want to complete the course in under 3 minutes" or "I want to do my best in balancing").

Teaching Tips for Teachers

Clear Structure: Establish routines and give students clear instructions. • **Visual Aids:** Use visual supports (charts, timers, videos) to enhance understanding. • **Simple Instructions:** Break down tasks into small, manageable steps. • **Sensory Considerations:** Be mindful of sensory needs and offer flexibility. • **Positive Feedback:** Provide immediate feedback.	• **Social Interaction:** Foster teamwork and peer support, and model social behavior. • **Adapt for Needs:** Modify tasks and offer choices to ensure everyone can succeed. • **Use Technology:** Incorporate digital tools to enhance engagement and learning. • **Patience and Flexibility:** Be patient, allow extra time, and stay flexible in your approach.

Assessment Strategy

Ongoing Observation: As students participate, actively observe their behavior, physical engagement, and social interactions. Look for signs of frustration, difficulty with the physical tasks, or social withdrawal. Use this information to adjust the level of support you provide. Offer students encouragement and gentle guidance if they seem stuck or unsure. If a student struggles with one obstacle, adjust the challenge level by suggesting a simpler alternative or providing step-by-step support. **Dynamic Adjustments:** If a student finds a particular obstacle too challenging or overwhelming, modify it on the spot. For example, if a student has trouble crawling through a narrow space, suggest they try a larger opening or a less	**Group Reflection:** After completing the obstacle course, hold a reflective discussion. Ask the students about their experiences, focusing on both the physical and emotional aspects. Use open-ended questions such as: "What was the hardest part of the course for you?" ♣ "How did you feel when you finished?" ♣ "What helped you keep going when you faced a challenge?" **Peer Feedback**: Have students share what they learned from working with their peers. This reinforces the social aspects of the activity and encourages communication, empathy, and collaboration **Emotional Regulation:** To help students process any feelings of frustration or excitement, guide them through calming techniques, such as deep breathing, stretching, or quiet reflection. This helps students regulate their emotions and end the activity on a positive note. **Reinforce Positive Outcomes:**

restrictive activity like stepping over a smaller hurdle. If needed, adjust the timing of activities. Some students may need a longer time to complete a task, while others may finish faster and could benefit from extra challenges.	Acknowledge and celebrate achievements, both large and small. Praise effort and improvement, not just success. Encourage students to recognize their own growth (e.g., "You improved your balance so much today!"). If students are open to it, invite them to share how they overcame difficulties and what strategies they used to complete the course. This encourages self-reflection and builds confidence.

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Supporting Children with Autism through Physical Education

Chapter 4
How to Engage Students with Autism in Group Physical Education Activities

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CHAPTER 4

Engaging Students with Autism in Group P.E. Activities

This chapter provides a holistic approach to group P.E. for students with autism, prioritizing social interaction, communication, and personal growth in an inclusive, supportive setting. By using structured, flexible lesson plans and empathetic teaching strategies, educators can foster a positive group experience tailored to each student's needs.

Engaging students with autism in group Physical Education (P.E.) activities requires a thoughtful and inclusive approach that fosters participation, enjoyment, and growth. The curriculum addressess their unique needs, focusing on communication, social interaction, motor skills, and sensory sensitivities. The structured content and curriculum, "Engage students with autism in group P.E. activities." Using visual prompts to support structure in PE and sport. "Pupils with autism are 'visual thinkers' and even those with high IQs need visual support" (Grandin, 1992, Joliffe, Landsdown, and Robinson, 1992):

- activities are broken down into smaller steps
- the sequence is logical and linear remembering that young people with ASD tend not to be able to transfer and apply skills learnt
- the starting point in teaching skills and activities may also be different although demonstrations and repetitions are similar.

Practical and consistent teaching strategies in the classroom

The planning of a lesson format provides a structure throughout the lesson, however where and how the lesson is taught can assist provide both structure and consistency. Some practical strategies include:

- Use colored throw down spots for where you want the young person to start so that they can orientate themselves to the room
- Use visual and verbal communication together (e.g. count down from 10 before saying stop)
- Establish a good sensory area that is free from bright light and shadows
- Use smaller teaching spaces for dedicated sessions to provide a better sense of security
- Focus on activities that engage and provide less complex tasks and concepts
- Consider having a designated space that can act as a withdrawal room/area so that pupils can withdraw themselves to and/or access
- Ensure excess equipment and distractions are removed from the teaching space
- Use appropriate rewards to support and confirm good traits and characteristics.

Considerations related to warm-ups - Practical strategies and activities

The beginning of any lesson is crucial for setting the right tone and ensuring the young people want to take part. Typically, there are three 'types' of warm- ups each with benefits and challenges for including young people with ASD:

Free play

Free play is where young people are encouraged to independently explore the environment with different props. For example, hoops and the large square skate boards, trampoline, rugby and footballs. This style of warm-up is used before the main whole class warm-up and tends to last for approximately 5- 10 minutes and has 3 main purposes and benefits for young people with ASD:

- To provide enjoyment for all children with their own particular interests. This will lead to a positive association with PE
- To give opportunities to explore the environment which will help with the difficulty some students have with transitions from one environment to another.
- To provide the opportunity for the more active students to burn off energy before the start of the lesson.

4.1. Lesson Plan: Integrated Bocce Activity in Physical Education

Learning Scenario and Implementation Plan-1		
Boccia for ASD Pupils		
Target Groups	• Pupils with ASD: Adaptable for children of all ages on the autism spectrum • Teachers and facilitators who deals with ASD	
Learning Objectives	By the end of the activity, target groups will have: ● introduced Boccia, ● focused on turn-taking, accuracy, and fine motor skills in a structured and supportive environment.	
Competencies		
Social interactive Practice cooperative play and simple teamwork in a supported setting.		**Self-regulation** Learn to follow routines, take turns, and manage transitions.
Learning Scenario	**Introduction (10 minutes):** • Explain the basic rules of Boccia and introduce the equipment. • Use visual aids and simple language to explain the game. • Show pupils the red and blue balls (for teams) and the white target ball (Buddy Ball). • Explain that the goal is to get the colored balls as close to the buddy ball as possible.	
Warm-up Activity	**Gentle throwing or rolling exercises** **Instructions**	

	• Practice rolling balls toward a target line to familiarize students with the movement. • Encourage each student to take turns rolling a ball. Goal: Improve hand-eye coordination and get comfortable with the rolling motion.

Main Activity

Playing Boccia (20 minutes)
Set-Up: Divide the students into two teams (red and blue) or let them play individually if more comfortable.
Instructions for teachers
- Start with each student taking turns to roll their ball toward the buddy ball.
- Use visual cue cards to reinforce turn-taking (“my turn,” “your turn”).
- Provide encouragement and positive reinforcement after each roll.

Goal: Practice turn-taking, patience, and accuracy in aiming.
Instructions for Pupils with ASD
The teacher gathers all the students together and explain step-by-step how to play the Boccia.
"After you throw, sit and wait. Watch others throw their balls."
"Aim at the white ball."
"Everyone sits or stands near the court. Stay calm and listen."
"First, we will throw the white ball. This is the target."
"Hold the ball gently in one hand."
"It will be your turn again soon."
"Now, roll or throw the ball softly. Try to get close!"
"Now, we take turns throwing our colored balls. Your turn is after I call your name."
"Sit or stand in a comfortable spot."
"The goal is to throw your ball close to the white ball. This is called the 'Buddy Ball.'
"This is the Boccia ball. It is soft and round."
"We will take turns throwing the ball."
"Whoever gets their ball closest to the jack wins points."

Cool Down and Reflection	**Activity:** Group discussion and sensory break **Instructions:** Invite students to share what they enjoyed about the game. Offer a sensory corner with calming activities for students needing a break. **Goal:** Allow students to unwind and reflect on their experience.

Observational Tips

Engagement & Participation • Do they seem focused or distracted? • Are they actively participating or observing from the sidelines? • Do they need prompting to take turns or stay involved? **Communication** **Observe verbal and non-verbal cues** • Are they using words, gestures, or facial expressions to communicate? • Do they respond to instructions, or do they need repeated explanations? • Are they expressing enjoyment, frustration, or confusion? **Social Interaction** • Look for interactions with peers and facilitators: • Are they taking turns and waiting patiently? • Are they seeking help or support from others? • How do they respond to winning or losing?	**Noting Key Behaviors of Pupils** **Preferred Engagement Style** • Do they prefer structured tasks or more free-play elements of the game? • Are they following routines or creating their own methods? **Triggers and Coping Mechanisms** • Identify triggers that lead to distress (e.g., loud noises, unexpected rule changes). • Observe how they self-regulate or cope when overwhelmed (e.g., stimming, seeking a quiet space). **Response to Feedback** • Do they respond positively to encouragement or constructive criticism? • How do they handle correction or guidance? **Tips for Documenting Observations**

Sensory Responses **Monitor for signs of sensory sensitivity or overload:** • Are they comfortable with the environment (lighting, noise, tactile elements of Boccia)? • Do they react to specific stimuli, such as the texture of the ball or sudden noises? **Motor Skills** **Evaluate their ability to perform movements:** • Can they hold, aim, and throw the Boccia ball effectively? • Are there any challenges with coordination or balance? • Are they adapting their technique over time? pupil's needs? • Did the activity encourage communication and social interaction? • Was the environment inclusive and supportive? • Are there specific strategies or supports that could enhance their experience?	**Use Objective Language** • Avoid assumptions or interpretations of behavior. Sample: Instead of saying, "seems uninterested," say, "looked away from the game and played with the ball for five minutes." **Focus on Progress** • Record any improvements or adaptations in their approach to Boccia over the session. **Highlight Individual Strengths** • Note any areas where the pupil excels, such as strategy, focus, or teamwork. **Incorporate Context** • Include details about the environment, the session's pace, and group dynamics.

Post-Observation Reflection

• Were the rules and instructions adapted to meet the pupil's needs?
• Did the activity encourage communication and social interaction?
• Was the environment inclusive and supportive?
• Are there specific strategies or supports that could enhance their experience?

Use Supportive Devices

• Some students may benefit from using adaptive equipment, such as a throwing ramp, if they have limited motor skills.
Ensure all equipment is safe and accessible to all students.

Monitoring and Adjusting

Frequent Check-ins

• Regularly check on students' comfort and engagement levels throughout the activity. This might involve observing their
body language or asking simple, yes/no questions to gauge how they feel.

Small Group Work

• If necessary, break the class into smaller groups or pairs to provide more individualized attention and support.

Encourage Emotional Regulation

• Some students may get frustrated or overstimulated.
Teach calming techniques, such as deep breathing or counting to 10, and encourage their use during transitions or when emotions run high.

Use of Social Stories

• For students who struggle with expectations, you can use social stories or scripts that outline how the game will proceed, what behavior is expected, and how to interact with teammates.

Teaching Strategy

Pre-Activity Preparation

• Create a Sensory-Friendly Environment
• Minimize distractions, loud noises, and other sensory triggers. This might involve dimming the lights or using noise-canceling headphones.
• Provide clear and simple visual cues or schedules to help students understand the flow of the activity.

Visual Supports

• Use visual instructions, picture cards, or videos to demonstrate the rules and techniques.
• Display a visual breakdown of the activity so students know what to expect step-by-step.

• Recruit volunteers familiar with autism spectrum needs or provide brief training for community group leaders to ensure inclusive, patient engagement.
• Use visual schedules and sensory-friendly equipment (e.g., soft rings, and textured game pieces).

Resource Utilization

● Boccia balls (or soft substitute balls in red, blue, and white)
● Tape or markers to outline the playing area
● Visual cue cards for “my turn,” “your turn,” and “stop”
● Optional: Sensory breaks corner with calming items

Adjust Rules and Equipment

Simplify or Modify Rules

• Depending on the students' levels of understanding and attention, simplify the rules of Boccia. For example, reduce the number of rounds, allow longer times for throwing, or adjust scoring to focus more on participation than competition.

Use Visual Supports

Use pictures or diagrams to explain the rules, turns, and objective of the game. This is especially helpful for students with communication difficulties or those who benefit from visual cues.

Modified Balls

• Use larger, brightly colored balls if students struggle with coordination or if their visual processing benefits from more vibrant colors. Alternatively, softer or weighted balls can help students with sensory sensitivities.

Pacing and Structure

Individualized Pacing

• Some students may need more time to process information or to complete a turn. Allow pupils to take breaks when needed or give them the time they need to focus on each throw.

Clear Structure

• Provide a clear, structured sequence for each round, such as "first player throws red ball, then player 2 throws blue ball," etc. This routine helps students who thrive on predictability.

Visual Timers

• Use a countdown timer to signal how much time they have to throw, as this can help pupils with ASD manage expectations and reduce anxiety.

Sensory Considerations

Sensory-Friendly Environment

• Ensure the playing space is not too noisy or overstimulating. Soft lighting and reduced background noise can help students with sensory sensitivities.

Quiet Area

• Offer a space where students can retreat if they become overwhelmed. Boccia can be exciting, and some students may need time to self-regulate.

Team-Based Play Pair Students with Peers

• Pair students with ASD with a peer who can offer guidance or support during the game. This could be a more experienced player who models behavior and gives verbal or visual cues to help guide the student.

Role Flexibility

• Students can be assigned different roles within the team, such as "scorekeeper" or "ball retriever," to increase involvement and engagement without requiring them to take the lead in throwing.

Encourage Communication

• For students who may struggle with verbal communication, use communication boards, symbols, or simple sign language to encourage them to share their thoughts, ideas, or strategies with the group.

Use of Reinforcement

Positive Reinforcement

• Offer praise and rewards for effort, teamwork, or improvements, rather than focusing solely on winning. For example, "Great job working with your partner!" or "You made a great try!"

Visual and Tactile Rewards

• Some students might respond better to tangible rewards, such as stickers, tokens, or a special opportunity (e.g., leading the next round).

Social Skills Focus

Team Collaboration

• Emphasize cooperation and social interaction in the game. This could include encouraging students to take turns, give each other high-fives, or communicate openly about strategies.

Role-Playing and Simulation

• Before playing Boccia, you might simulate a game by role-playing different scenarios, such as how to ask for a turn or how to compliment someone's performance. This helps students learn social behaviors in a structured environment.

Adjusting for Cognitive and Motor Skills

Modify the Throwing Technique

• For students with fine motor skill difficulties, allow them to roll the ball instead of throwing it. Provide a ramp or guide to help students who have difficulty with hand-eye coordination or mobility issues.

Teaching Tips for Teachers

Classroom Management Tips

Clear Structure

• Establish a clear routine before the activity begins. Let students know what to expect, how long the session will last, and what their role will be. Predictability is key for students with ASD.

Define Expectations

• Set simple, clear rules for the activity (e.g., taking turns, staying in your area, handling the balls gently). Use visuals to remind students of these rules throughout the activity.

Visual Schedule

• Use a visual schedule to show the steps of the activity and what will happen next (e.g., "First we practice rolling, then we play a game"). This can help with transitions and reduce anxiety.

Use a Timer

• For students who struggle with time management, use a visual or auditory timer to mark activity intervals or breaks. It helps them understand how long the activity will last.

Quiet Space

• Have a designated "calm area" where students can go if they feel overwhelmed, which allows for self-regulation and reduces disruptions.

Engagement Techniques

• **Break Tasks into Steps:** To keep students engaged, break down the activity into smaller, achievable steps. Provide praise and encouragement after each step is completed.

Peer Support

• Pair students with a peer buddy to help model the activity, reinforce positive behavior, and promote social interaction.

Incorporate Interests

• Some students with ASD may engage more fully if the activity is connected to their specific interests (e.g., incorporating favorite colors, themes, or incorporating a favorite character in the game).

Use Positive Reinforcement

• Reinforce engagement with praise, small rewards, or a special privilege (e.g., choosing the next ball

Interactive and Visual

• Keep the game dynamic and visually engaging by using colorful equipment and incorporating music or sounds if they are calming or motivating for the group.

Additional Group Work Considerations

• Promote Turn-Taking-Reinforce turn-taking and patience, which can be challenging for students with ASD. Use visual timers to let students know when it's time to switch.

Focus on Teamwork

• Emphasize the importance of working as a team, whether by passing the ball to a teammate or cheering on others. Foster an inclusive environment where students support each other.

Encourage Communication

• In group work, encourage students to use verbal or non-verbal communication to collaborate, whether that's through eye contact, gestures, or speech.

Adaptation Tips

Modified Equipment

• Use soft balls or larger-sized Boccia balls for easier gripping and throwing. You could also use ramping equipment for pupils who have difficulty with hand control.

Reduce Complexity

• For beginners or pupils with sensory sensitivities, simplify the rules or shorten the playing time. You could start with individual play or small team games before introducing more complex rules or group work.

Sensory Considerations

• Be mindful of sensory needs (e.g., noise, light, or textures). If the sound of the balls rolling or the environment becomes overwhelming, consider reducing distractions or providing noise-canceling headphones.

Physical Support

• For pupils with motor difficulties, offer physical guidance or allow them to roll the ball using a ramp or from a seated position.

Alternative Communication

• If pupils use communication devices or other augmentative communication systems, ensure they

color). Focus on specific behaviors (e.g., "I saw you waiting for your turn – great job being patient!").	have access to these tools to express needs or indicate preferences during the game.

Learning Outcomes

Social Interaction

- Encourages pupils to communicate with teammates and opponents, fostering verbal and non-verbal interaction.
- Promotes teamwork as students work together to strategize and play.
- Teaches the importance of waiting for their turn and respecting others' turns.
- Throwing or rolling the Boccia ball enhances hand-eye coordination and motor planning.
- Encourages controlled movements, which can help pupils regulate their physical actions.
- Pupils learn to plan moves, assess the game situation, and make decisions based on outcomes.
- Improves concentration by focusing on the target and the game.
- Achieving small successes during the game boosts self-esteem.
- Pupils learn to handle winning and losing, which can teach resilience and emotional control.
- Boccia is highly adaptable, ensuring all pupils, regardless of ability, feel included.
- Helps foster an understanding of individual differences and strengths.
- Encourages active participation in a fun, low-pressure environment.
- Pupils may show more interest and willingness to participate in other group activities.

Acquired Knowledge

• Students learn to communicate both verbally and non-verbally, fostering the ability to express needs, give instructions, and work together. • Boccia is often played in teams, allowing pupils to practice cooperation, share responsibilities, and understand the importance of working towards a common goal. • Players must wait their turn to throw, which reinforces patience, respect for others' space, and self-regulation skills. • In group work, conflicts may arise over rules or disagreements. This activity provides a safe space to practice problem-solving and managing minor disputes. • Students need to think ahead, planning where to place their balls to maximize their points or block the opponents. This boosts their strategic thinking and planning skills. • Boccia requires focus on the task at hand, enhancing the ability to maintain attention for a sustained period. • Learning the rules of the game and how the sport is scored helps students practice understanding and following structured activities. • Boccia helps students develop fine motor control, especially when aiming and throwing the balls accurately. • Players need to understand where the balls are in relation to each other and to the target (the "buddyball"). This enhances spatial reasoning and awareness. • The physical activity involved in Boccia can help students with ASD practice sensory regulation as	• Success in Boccia, whether from making a good throw or being part of a team, can increase a student's confidence and sense of accomplishment. • Learning to cope with both winning and losing in a supportive group environment can teach valuable lessons in resilience and sportsmanship. • Through group work and participation in a structured game, pupils learn the importance of adhering to rules and respecting authority figures (such as coaches or facilitators). • Students can practice good sportsmanship by congratulating teammates and opponents, learning to accept both victories and losses gracefully. • Working with others in a team, especially in a game setting, can help students develop empathy for their peers as they experience both challenges and success together. • Pupils may use descriptive language when explaining strategies, providing feedback to teammates, or discussing the positions of balls on the court. • Playing in a group encourages ASD students to use and understand a variety of communication forms, which can be especially useful for students who struggle with verbal communication. • If students take on leadership or guidance roles, they will practice instructing others and providing clear, concise explanations. • The need to keep score, understand points, and tally the results strengthens basic numeracy skills. • Players must assess the positions of the balls and think about distances, angles, and strategies, which can be linked to mathematical concepts such as geometry.

they experience different movements, sounds, and tactile sensations during the game. • Playing a competitive game like Boccia can trigger emotions like frustration, excitement, or pride. It gives ASD students an opportunity to practice managing those emotions in a safe environment.	• Boccia can be adapted to suit the needs of each student, offering inclusive opportunities for those with varying levels of ability. This can boost the knowledge of inclusive practices in group settings and create a more supportive learning environment.

Qualitative Feedback Indicators

Social Interaction and Communication • Frequency of initiating or responding to peers during the activity. **Non-verbal communication** • Use of gestures, facial expressions, or eye contact to interact with teammates or instructors. **Collaborative behavior** • Willingness to take turns, share equipment, and support teammates. **Emotional Regulation and Confidence** • Display of enjoyment, excitement, or calmness during the activity. **Handling challenges** • Responses to losing a round or not performing as intended (e.g., staying composed, seeking guidance). **Confidence growth** • Observable improvement in willingness to participate actively over time. **Motor Skills Development** **Fine motor skills** • Ability to grip and release the ball effectively. **Gross motor skills** • Control and accuracy in rolling the ball toward the target. **Adaptability** • Willingness to try new techniques or strategies when suggested. **Cognitive Engagement** • Ability to stay engaged during the activity and follow instructions. **Problem-solving** • Use of strategies to improve performance or adapt to the game's challenges. **Rule understanding** • Demonstration of understanding Boccia rules and their application.	**Verbal feedback** • Expressing enjoyment of the activity or interest in playing again. **Body language** • Positive posture, relaxed movements, and visible enthusiasm during the game. **Active participation** • Degree of involvement in both competitive and cooperative aspects of the game. **Peer relationships** • Evidence of positive interactions, such as offering encouragement or celebrating teammates' successes. **Sense of belonging** • Observing whether pupils feel included and valued in the group dynamic. **Leadership roles** • Instances where a pupil takes initiative, such as helping organize or guide peers. ** These indicators can be documented using observational notes, feedback forms, or video recordings (with proper consent). **Participation in Turn-Taking** ● Engaging in taking turns during the game, indicating understanding of game structure and social rules. **Use of Problem-Solving Skills** ● Demonstrating strategic thinking by aiming or positioning the ball intentionally towards the target or blocking opponents.	**Improvement in Motor Skills** ● Progress in rolling, throwing, or directing the ball with improved accuracy over time. **Understanding Game Objectives** ● Following rules and showing comprehension of the goal to get the ball closest to the buddy ball. **Communication of Needs** ● Using verbal, non-verbal, or alternative communication to ask for help, clarify rules, or express preferences. **Engagement in Reflection** ● Discussing or acknowledging their own or others' performance, strategies, or improvements during or after the activity. **Sustained Attention** ● Maintaining focus on the game and their role, such as waiting for their turn or observing peers. **Positive Interactions** ● Showing interest in peers' actions by clapping, cheering, or watching attentively during others' turns. **Willingness to Participate** ● Actively engaging in all aspects of the activity, including setup, gameplay, and cleanup. **Expression of Enjoyment** ● Smiling, laughing, or showing enthusiasm when participating or achieving a successful throw. **Reduction in Avoidant Behaviors** ● Staying in the activity area and showing reduced signs of overstimulation or withdrawal (e.g., fidgeting, turning away). **Collaborative Behavior** • Sharing equipment, encouraging teammates, or acknowledging others' efforts, either through gestures or words.

<table>
<tr><th colspan="2">Developed Competencies</th></tr>
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Team Collaboration

● Encouraging pupils to work together, take turns, and support their teammates.

Communication Skills

● Enhancing verbal and non-verbal communication, such as sharing ideas, expressing needs, or responding to others.

Empathy and Understanding Rules

● Building understanding of others' perspectives and following agreed rules.

Self-Regulation Competences

● Impulse Control

● Learning to wait for their turn during the game.

● Managing excitement or frustration when a play goes well or poorly.

● Staying engaged in the activity.

● Concentrating on the task of aiming and throwing the ball.

● Coping with Stress-Practicing calm breathing and behavior during competition or under time pressure.

● Learning to accept mistakes or missed goals without frustration.

Adaptability

● Adjusting to new rules or changing team dynamics.

● Handling unexpected outcomes in the game.

Behavioral Regulation

● Maintaining appropriate conduct in a group setting (e.g., staying seated when not playing). - Following game instructions consistently.

Emotional Awareness Competences

● Identifying Emotions-Recognizing their own emotions (e.g., joy, disappointment, nervousness) during the game.

● Understanding how their emotions affect their actions.

Empathy Development

● Acknowledging teammates' feelings when they succeed or struggle.

● Celebrating wins together or providing encouragement after setbacks.

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Strategic Thinking

● Understanding rules and developing strategies to achieve goals in the game. Planning where to aim the ball to maximize the chance of success.

Problem-Solving

● Adjusting techniques based on outcomes (e.g., changing throwing style or aim after observing results). Recognizing and reacting to opponents' moves.

Decision-Making

● Choosing which ball to throw (color, position, or strength of throw) based on the game context. Balancing defensive and offensive strategies.

Understanding Cause and Effect

● Learning how the force and direction of a throw impact the ball's placement. Gaining insight into how positioning influences scoring opportunities.

Memory and Rule Application

● Recalling the sequence of play and the rules. Retaining techniques that worked well and applying them in future rounds.

Sustained Attention

● Maintaining concentration throughout the activity, especially during turn-taking and while observing opponents. Avoiding distractions to stay engaged in the task.

Goal-Oriented Focus

● Staying focused on the objective of placing their ball closest to the target (Buddy Ball). Avoiding frustration if immediate goals are not achieved.

● Visual Tracking - Following the movement of the ball to observe where it lands and plan the next action. Focusing on the buddy ball to align throws accurately.

● Multitasking - Combining visual focus with physical coordination (aiming, throwing, and observing simultaneously). Processing multiple aspects of the game, such as scoring, opponents' positions, and future throws.

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Emotional Expression

● Practicing appropriate ways to show emotions (e.g., clapping for success instead of yelling). Verbalizing feelings about the game, such as "I feel happy we won" or "I'm sad I missed the shot.

● Frustration Tolerance-Handling disappointment when their team doesn't perform as expected.

● Managing emotional responses to losing or challenges in skill execution.

● Building Confidence-Feeling pride and joy in personal achievements (e.g., a good throw).

Hand-Eye Coordination

● Aiming and throwing the ball towards a target improves visual-motor integration and precise control.

Fine Motor Skills

● Grasping, holding, and releasing the ball enhances dexterity and finger strength.

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Gross Motor Skills
● Engagement in seated or standing throwing promotes movement coordination of larger muscle groups.
Body Awareness
● Learning to adjust posture and positioning to optimize throwing helps develop proprioceptive understanding.
Strength and Control
● Developing the ability to modulate the force used when throwing or rolling the ball based on distance and target placement.
Spatial Awareness
● Understanding and navigating the court layout, positioning the ball effectively relative to the target and other players.
Endurance
● Repeated participation in throwing and retrieving actions builds stamina for physical activities.
Sensory Regulation
● The repetitive and predictable nature of Boccia can help pupils manage sensory sensitivities, such as tactile or auditory overstimulation.
Tactile Perception
● Handling balls of different weights and textures enhances sensitivity and comfort with tactile stimuli.
Visual Focus and Tracking
● Focusing on the ball, target, and other players helps strengthen visual tracking and sustained attention.
Auditory Processing
● Following verbal instructions or reacting to sounds during gameplay develops auditory discrimination and processing skills.
Kinesthetic Feedback
● The physical feedback from throwing or rolling the ball helps pupils learn how their movements impact outcomes.
Sensory-Motor Integration
● Combining sensory inputs (sight, touch, and proprioception) with motor actions improves overall coordination and responsiveness

Assessment Strategy

Observation Checklist
● Observation checklist for social, motor, and communication skills. Use a detailed checklist to track key skills such as physical coordination (accuracy in throwing, control of the ball), social interactions (engagement with peers, taking turns), and communication (asking for help, following instructions). This checklist can be filled out during the activity, providing real-time feedback on student performance. It will be helpful for observing how the pupil interacts in group settings, which is important for assessing the social development of students with ASD.
Individualized Progress Portfolios
● Progress portfolios to track individual growth over time. Create a portfolio for each student where you can document their work and progress in Boccia. This can include video recordings of their performance, written reflections, or photographs. It will allow to track incremental progress, document improvements, and identify areas where additional support is needed. The portfolio helps in creating personalized learning plans based on each pupil's specific needs and achievements.
Social Skills Rating Scales
● SSRS, which assesses a range of social behaviors including cooperation, assertion, and self-regulation. The SSRS can be used to assess students' social skills, particularly how they interact with peers during group activities like Boccia. The scale can be filled out by teachers, aides, or parents, based on observations. The focus is on how well the pupil is engaging with others, which is crucial in group sports settings like Boccia.

Measurement Criteria

Measurement Criteria	**Video Modeling**
Observation Checklist	● Is the pupil able to follow along with the video to demonstrate Boccia skills?
• Demonstrates proper Boccia throwing technique	

● Waits for their turn without prompting ● Initiates or responds to social interaction ● Follows instructions with or without support **Individualized Portfolio** • Photos/videos of Boccia performance (e.g., a student hitting the target or coordinating with a peer) ● Notes on any behavior changes or improvements in social skills ● Student self-reflection or teacher reflections on challenges and achievements **Social Skills Rating Scales** **Cooperation** ● Does the pupil cooperate with others during the activity? **Assertiveness** ● Can the pupil express their needs or wants, such as asking for a turn or indicating when they need assistance? **Self-regulation** ● Can the pupil manage their emotions and behavior when things do not go as planned? **Functional Behavior Assessment (FBA)** ● Does the pupil become upset when it's time to wait for their turn? ● What coping strategies can help them stay calm during the activity? **Visual Supports and Task Analysis** Step 1: Choose a Boccia ball Step 2: Aim the ball at the target Step 3: Throw the ball, using proper technique Step 4: Celebrate the outcome (whether successful or not) and move to the next round	● Does the pupil show improvement in applying the technique in the group setting? **Peer & Self-Assessment** ● Did you have fun during Boccia? ● How well did you work with your teammates? ● What could you do better next time? **Teacher Rating Skills** **Socialization** ● Interaction with peers during Boccia. **Communication** ● Ability to understand and follow instructions. **Daily Living Skills** ● Ability to follow the structure of the activity, manage personal space, and self-regulate. **Functional Behavior Assessment (FBA)** ● FBA to track challenging behaviors and identify triggers. In group sports like Boccia, students with ASD may have specific behaviors that interfere with participation (e.g., difficulty waiting for their turn, becoming upset with changes in routine). An FBA helps identify the antecedents (what happens before the behavior), the behavior itself, and the consequences (what happens afterward). Once you identify triggers and responses, you can tailor the activity to reduce disruptions and promote positive participation. **Visual Supports and Task Analysis** ● Task analysis charts and visual aids to break down activities. Many students with ASD benefit from clear, step-by-step instructions. Use visual supports like task analysis charts to break down Boccia into smaller, manageable tasks (e.g., picking up the ball, aiming, and throwing).
Video Modeling ● Video modeling for demonstrating specific Boccia skills correct Boccia techniques, including throwing, aiming, and interacting with peers. For students with ASD, seeing a visual demonstration can make learning more concrete. After viewing the video, assess how well the pupil can replicate the actions in a group setting. This can be tracked by observing improvements in their skills over time. **Peer and Self-Assessment** ● Use simple self-assessment forms and peer feedback to assess students' understanding and involvement. ● After each Boccia session, pupils could fill out a form evaluating their own performance and how well they worked with others. ● Peers can also provide feedback on teamwork and communication during the game. This promotes self-reflection and helps assess how they perceive their learning progress. Teacher Rating Scales ● Teacher Rating Scales (TRS), such as the Vineland Adaptive Behavior Scales. Teachers can use these scales to rate a pupil's social and adaptive behavior in a variety of contexts. In the case of Boccia, teachers rate behaviors related to group work, physical skill development, and social interaction. It provides insight into how a student is adapting to the activity in a group setting, and whether they need specific interventions.	

4.2. Lesson Plan: Integrated Curling Activity in Physical Education

<table>
<tr><th colspan="3">Learning Scenario and Implementation Plan-2</th></tr>
<tr><th colspan="3">New Age Curling for ASD Pupils</th></tr>
<tr><td colspan="3"></td></tr>
<tr><td>Target Groups</td><td colspan="2">• 8-15 aged pupil with Autism
• Teachers and facilitators who deals with ASD</td></tr>
<tr><td>Learning Objectives</td><td colspan="2">By the end of the activity, target groups will have:

• introduced Curling,
• focused on turn-taking, social interaction, emotional regulations, accuracy, and fine motor skills in a structured and supportive environment.</td></tr>
<tr><th colspan="3">Competencies</th></tr>
<tr><td colspan="2">Social and Emotional Skills – Teamwork
Developing collaboration skills by working with peers to strategize and achieve common goals.</td><td>Gross and Fine Motor Skills
Building coordination between upper body movements and spatial awareness during gameplay.</td></tr>
<tr><th colspan="3">Learning Scenario</th></tr>
<tr><td colspan="3">Introduction (10 minutes)
Welcome and Warm-Up
• Greet students and introduce the concept of New Age Curling.
• Briefly explain the objective of the game (to slide stones towards the target area).
• Use visuals to show the curling stones and target area.
Team Formation
• Divide students into small teams (3-4 students per team) to encourage teamwork.
Demonstration (10 minutes)
Explanation of the Rules
• Use visual aids to outline the basic rules of New Age Curling:
• Each team takes turns sliding their stones.
• The goal is to get as close to the center of the target as possible.
Demonstrate Techniques
• Show how to hold and slide the stone, emphasizing grip and stance.
• Explain the role of teammates in assisting with aiming and sliding.
Guided Practice (15 minutes)
Practice Sliding
• Set up a practice area with a target and have each student take turns sliding their stones.
• Provide individual support, encouraging students to focus on their grip and sliding technique.
• Allow peer feedback within teams to promote communication.
Gameplay (20 minutes)
Structured Game Play
• Organize a mini-tournament where teams compete against each other.
• Use a timer to keep rounds short (3-5 minutes) to maintain engagement.
• Allow students to rotate roles within their teams (sliding, aiming, cheering).
Use Visual Scoring
• Create a simple scoring system using a whiteboard for visibility.</td></tr>
<tr><td>Cool Down and Reflection</td><td colspan="2">Sensory Break
• Encourage students to take a moment to use sensory tools like stress balls or fidget spinners.
Group Discussion
• Gather students and ask them to share their thoughts about the game.</td></tr>
</table>

	• What did they enjoy? • How did they feel working as a team? • What challenges did they face?

Observational Tips

Preparation and Environment

Structured Environment

• Observe if the lesson area is clearly marked with visual boundaries (e.g., tape on the floor).

• Note if there are visual aids like step-by-step instructions, pictograms, or timers to support understanding.

Sensory Considerations

• Look for adaptations to reduce sensory overload, such as minimizing loud noises, ensuring appropriate lighting, and providing noise-canceling headphones if needed.

Equipment Accessibility

• Check if New Age Curling stones are adapted for different physical abilities and easy for pupils to handle.

• Ensure all equipment is safe and introduced in a calm, predictable manner.

Lesson Delivery

Clear Communication

• Observe if instructions are short, direct, and reinforced with visuals or demonstrations.

• Note if teachers or assistants use visual schedules or cue cards to signal transitions.

Role of Routine

• Look for evidence of a consistent structure, such as warm-ups, main activity, and cooldowns, to create predictability.

Individualized Support

• Check if the lesson accommodates various needs, such as support or breakout spaces for pupils who may feel overwhelmed.

• Observe if pupils are encouraged to participate at their comfort level without pressure.

Modeling and Reinforcement

• Watch for demonstrations of movements and clear examples before pupils are asked to perform tasks.

• Note how positive reinforcement (verbal praise, stickers, tokens) is used to encourage engagement and reward achievements.

Interaction and Engagement

Social Interaction

• Observe how teamwork is encouraged.

• Are pupils partnered or grouped in a way that considers their social needs?

• Look for activities that promote turn-taking, sharing, and communication, with scaffolding provided as needed.

Engagement Levels

• Note whether pupils seem interested and engaged in the activity or if they appear distracted, anxious, or disengaged.

• Pay attention to how the instructor responds to disengagement and whether strategies are used to re-engage pupils.

Behavioral Observations

• Watch for signs of frustration, overstimulation, or discomfort, and note how these are addressed.

• Look for calming strategies or breaks being offered when needed.

Skill Development

Physical Skills

• Observe how the lesson develops motor skills, such as rolling the stones with control, aiming, and hand-eye coordination.

• Check if the activities are tailored to individual abilities, providing challenges without frustration.

Cognitive and Social Skills

• Note whether problem-solving skills, focus, and following multi-step instructions are being gently practiced.

• Look for any efforts to promote understanding of rules, teamwork, and strategy.

Post-Lesson Reflection

Feedback and Review

• Observe if there's a review of what was learned, using visual aids or simple language.

• Check if pupils are given the opportunity to express how they felt about the lesson, verbally or non-verbally.

Teacher/Pupil Relationship

• Note how the instructor interacts with pupils—does their tone, pace, and demeanor match the pupils' needs? Look for signs of mutual respect and rapport.

Teaching Strategy

Understand the Needs of the Pupils

Sensory Sensitivities

• Consider the sensory profile of each pupil (e.g., aversion to loud sounds or bright lights).

Visual Cues

• Mark lanes and zones clearly with colorful, tactile floor markings to guide pupils visually.

Quiet Zones

• Use soft-spoken instructions and ensure the environment is calm and clutter-free. **Routine and Predictability** • ASD pupils thrive with predictable routines. Outline the structure of the session clearly and consistently. • Communication Styles: Use visual aids, simple language, or alternative communication methods as needed. **Preparing the Environment** **Safe and Accessible Space** • Set up a safe, non-slip surface with plenty of room for movement.	• Provide a quiet space nearby for pupils who may need a sensory break. **Equipment Adaptations** **Lightweight Stones** • Use New Age Curling stones, which are lighter and easier to maneuver. **Handles or Adaptations** • Offer modified handles for pupils with fine motor challenges. **Sensory-Friendly Features** • Consider non-abrasive materials and muted colors to accommodate sensory sensitivities.
Resource Utilization	
Lightweight Stones • Use modified, lightweight curling stones with handles, making them easier to maneuver. **Push Sticks** • Provide push sticks for pupils who may find it challenging to bend or who need extra support with coordination.	**Smooth Surface Mats** • Use portable curling mats designed for indoor play, as they are non-slippery and safe. **Visual Cues** • Use brightly colored stones or add tactile markers to differentiate between teams. **Noise Management** • Equip the area with noise-dampening materials if echoes are an issue, or provide noise-canceling headphones for pupils sensitive to sound. **Lighting** • Ensure consistent and non-glare lighting to avoid overstimulation.
Adjust Rules and Equipment	
Environment Adjustments **Quiet Zones** • Set up a quiet area nearby for pupils who may need sensory breaks. **Controlled Noise Levels** • Use soft verbal cues or visual signals instead of whistles or loud commands. **Predictable Layout** • Ensure the curling court is clearly marked and free of clutter, as ASD pupils often benefit from consistency. **Communication Strategies** **Visual Supports** • Use visual instructions, diagrams, or step-by-step picture cards to explain the rules or techniques. **Clear, Simple Language** • Give concise instructions and check for understanding through repetition or by asking the pupil to paraphrase. **Non-Verbal Communication** • Use gestures or visuals for students who struggle with verbal cues. **Equipment Adaptations** **Lighter Stones**	**Task Adjustments** **Shorter Durations** • Break activities into smaller, manageable segments to maintain focus. **Repetition and Routine** • Repeat key actions to help pupils build familiarity and comfort with the activity. **Progressive Challenges** • Gradually increase difficulty based on individual readiness. Peer and Social Interaction Buddy Systems • Pair ASD pupils with understanding and supportive peers who can model skills and encourage participation. Structured Social Roles • Assign roles like “stone placer” or “scorekeeper” to help ASD pupils engage within their comfort zones. Celebrating Efforts • Use positive reinforcement to celebrate achievements, not just outcomes. **Sensory Considerations** **Sensory-Friendly Materials**

• Provide modified curling stones with lighter weights for easier handling. **Gripping Tools** • Offer adapted push sticks or handles for better grip and control. **Target Variations** • Use larger or closer targets to build confidence and increase success rates.	• Check if the curling equipment feels comfortable (e.g., no sharp edges or rough textures). **Reduce Overstimulation** • Limit exposure to bright lights or loud noises in the activity area. **Proprioceptive Input** • Incorporate warm-up exercises that provide calming deep-pressure input to help focus.
Teaching Tips for Teachers	
Classroom Management **Prepare a Structured Environment** **Visual Schedules** • Use clear, simple visuals to outline the session plan (e.g., warm-up, practice throws, scoring). **Consistent Routine** • Repetition helps students feel safe and understand expectations. **Clear Boundaries** • Mark areas for gameplay and waiting zones with visual cues (e.g., cones, tape). **Simplify Instructions** • Use short and clear sentences. Avoid complex instructions. • Demonstrate skills step-by-step. Use modeling rather than verbal explanations alone. • Break tasks into manageable parts, such as: - Gripping the stone. • Aiming at the target. • Releasing the stone. • Reinforce with visual aids or videos. **Sensory Considerations** **Noise Sensitivity** • Curling environments might echo. Provide ear defenders if necessary. - Tactile Comfort: Some students may be sensitive to textures. Ensure equipment (stones, pushers) is comfortable. **Space** • Allow pupils personal space and avoid overcrowding. **Engagement Techniques** **Encourage Social Interaction** • Promote teamwork through small, paired activities, like taking turns sliding the stone. • Use cooperative language and gestures to build camaraderie. • Teach simple phrases for communication during the game (e.g., "Your turn," "Good throw"). **Use Positive Reinforcement** • Celebrate successes, even small ones (e.g., "Great job sliding the stone straight!").	**Adaptation Tips** **Adapt the Game** • Use New Age Curling equipment designed for accessibility: • Lightweight stones or stones on ball bearings. • Push sticks for those who have difficulty bending or crouching. • Shorten the target distance initially to reduce frustration. • Play a simplified version of the game to focus on fun and skill-building. **Foster Emotional Regulation** • Introduce calming strategies for moments of stress (e.g., deep breathing or quiet breaks). • Identify triggers for frustration (e.g., waiting turns, missing a target) and address them proactively. • Provide a quiet space if a pupil needs time to self-regulate. **Monitor Progress** • Track skill development, but keep goals realistic and flexible. • Celebrate milestones, like hitting the target consistently or understanding game rules. • Regularly communicate progress with parents or caregivers. **Engage Through Interests** • Incorporate themes or visuals the pupil enjoys (e.g., favorite characters or colors on the target zone). • Relate curling to everyday concepts they understand (e.g., “pushing like sliding a toy car”). **Build Relationships** • Get to know each pupil's preferences, challenges, and motivators. • Be patient, empathetic, and open to adjusting your methods. **Example Activity: Target Practice** • Lay out colored zones on the floor as targets. • Let pupils aim for larger, easier zones initially. • Gradually introduce more challenging targets.
Learning Outcomes	
Social Skills Development	**Fine Motor Skills**

Improved Communication

• New Age Curling encourages verbal and non-verbal communication between students, which can enhance social skills. Whether calling out instructions, working with teammates, or simply learning to take turns, these interactions can help improve students' ability to communicate with others in a social context.

Teamwork and Cooperation

• Curling is a team sport, and adapting it to suit ASD students emphasizes the importance of working together. It fosters a sense of collaboration, teaching students how to follow group strategies, support each other, and celebrate successes together.

Peer Interaction

• The structured yet relaxed environment can facilitate interaction with peers, reducing the social isolation often experienced by students with ASD.

Motor Skills Development

Gross Motor Skills

• Curling requires movement such as sliding stones, sweeping, and balancing. For students with ASD, these activities can significantly improve their physical coordination, muscle strength, and balance. Adapting the physical demands can help them build confidence in their abilities.

Gripping and releasing the curling stone, along with other specialized movements like sweeping, can enhance fine motor control.

Spatial Awareness

• Understanding the dynamics of where to aim the curling stone and how to move within the boundaries of the rink helps in spatial awareness, which is important for many daily life skills.

Emotional Regulation

Focus and Concentration

• The nature of curling requires players to focus on their actions and the actions of their teammates. This can be a great way for students with ASD to practice maintaining concentration in a structured setting.

Dealing with Success and Failure

• Through the game, students can learn to cope with both winning and losing, helping them manage frustration or joy in a safe and supportive environment.

Sense of Accomplishment

• Completing a game or even mastering a particular skill can provide a strong sense of pride, contributing to improved self-esteem.

Cognitive Skills Development

Problem Solving

• New Age Curling requires strategy and thinking ahead, as players need to plan their shots and think about the angles, distances, and other variables. This can help enhance cognitive skills, including planning, memory, and problem-solving.

Following Instructions

• Many students with ASD thrive in environments where they can follow clear, structured instructions. Curling can be broken down into clear, achievable steps, making it easier for these students to understand and participate.

Increased Physical Activity

Encouraging Exercise

• Regular participation in adaptive sports like New Age Curling promotes physical health and fitness, which is often an area of concern for students with ASD. These activities help combat sedentary lifestyles and improve overall health.

Engagement in Sport

• Physical activity also helps in reducing stress and anxiety, which is particularly helpful for many students with ASD who experience heightened stress.

Self-Advocacy and Independence

Building Confidence

• Students develop a sense of independence as they learn the rules of the game, execute shots, and work with others. The gradual mastery of skills encourages self-confidence, which can translate to other areas of life.

Decision-Making

• The game's structure allows students to make decisions on their own, such as where to place the stone or how to communicate with teammates. This promotes autonomy and decision-making abilities.

Inclusion and Social Acceptance

Integration into the Larger School Community

• New Age Curling offers opportunities for inclusion, allowing students with ASD to interact with peers who may not be part of their core social group. It can help break down barriers and reduce stigmatization.

Peer Mentoring

• Older or more experienced students might be paired with those who are newer to the sport, fostering a sense of responsibility and empathy, and encouraging a supportive community environment.

Qualitative Feedback Indicators

Engagement and Participation

Indicators

• Comments on the level of enthusiasm or interest during sessions (e.g., "I enjoy playing; it's my favorite activity").

• Observations of increased willingness to take turns and participate in group activities.

• Frequency of voluntary involvement versus prompted participation.

Social Interaction and Communication

Indicators

• Reports or observations of improved peer interactions (e.g., more verbal exchanges, cooperative play, or teamwork).

• Instances of reduced anxiety during group settings (e.g., "He doesn't seem as worried about being close to others anymore").

• Feedback from teachers or parents about changes in how pupils interact outside the curling sessions.

Emotional Regulation and Wellbeing

Indicators

• Observed or reported changes in managing frustration, such as fewer meltdowns when experiencing challenges.

• Verbal or non-verbal expressions of happiness or pride (e.g., smiles, celebratory gestures, or statements like "I did it!").

Skill Development

Indicators

• Comments about learning or practicing new skills (e.g., understanding the game rules or strategies).

• Observed improvements in motor coordination and balance during curling activities.

• Feedback on cognitive skills like planning, focus, or problem-solving used in gameplay.

Enjoyment and Preference

Indicators

• Verbal affirmations from participants, such as "This is fun" or "I want to play again."

• Choices to engage with curling over other available activities during free time.

• Teacher or parent reports of pupils asking about the program outside scheduled sessions.

Adaptability of the Program

Indicators

• Participant feedback on the accessibility of instructions or modifications (e.g., "It's easy to understand what to do").

• Observations of participants successfully adapting to the equipment or tailored gameplay.

• Suggestions for improvement provided by pupils, parents, or teachers (e.g., "Can we have more colorful
markers for aiming?").

Stakeholder Feedback

Teachers

• Noted differences in classroom behavior, such as better cooperation or focus.

Parents

• Comments on home behavior reflecting increased confidence or excitement about curling.

Facilitators

• Observations on how well activities align with participants' needs and interests. Collecting the Feedback - Methods: - Interviews (one-on-one or group discussions).

• Observation notes from instructors or facilitators.

• Feedback forms for teachers, parents, and older pupils.

Developed Competencies

Physical and Motor Skills Development

Hand-Eye Coordination

• Players learn to aim and release the stone accurately.

Gross Motor Skills

• Pushing the stone engages large muscle groups and improves strength and balance.

Fine Motor Skills

• Precise movements during stone placement refine control and dexterity.

Cognitive Skills

Problem-Solving

Emotional Development

Resilience

• Managing wins and losses provides opportunities to cope with emotions.

Self-Regulation

• The calming, repetitive motion of sliding the stone can help regulate sensory needs.

Confidence Building

• Success in a structured activity promotes a sense of accomplishment.

• Deciding how much force to apply and where to aim encourages strategic thinking. **Planning and Organization** • Understanding game rules and strategizing teaches sequence planning. Focus and Attention • Sustaining concentration throughout the game helps enhance attention spans. **Social and Communication Skills** **Turn-Taking** • Structured gameplay fosters understanding of taking turns and waiting patiently. **Teamwork** • Collaboration during team games promotes cooperative behavior and shared goals. **Expressive Communication** • Players practice verbal and non-verbal communication to discuss strategies and celebrate successes.	**Sensory Processing** **Tactile Engagement** • Handling equipment provides beneficial sensory input. **Visual Tracking** • Watching the stone's movement helps with visual focus and processing. • Controlled Sensory Environment: The game's structured nature minimizes overstimulation, making it more accessible. **Independence and Responsibility** **Self-Initiated Action** • Pupils learn to take responsibility for their moves, building independence. Rule Following • Adhering to the simple, consistent rules fosters.
Measurement Criteria	
Define Clear and Specific Learning Outcomes • Align learning outcomes with the physical, social, and cognitive skills developed in the curling program: **Physical Skills** • Coordination, balance, precision, and strength. **Social Skills** • Turn-taking, teamwork, and communication. **Cognitive Skills** • Focus, decision-making, and strategy development. **Emotional Regulation** • Managing excitement or frustration during gameplay. Individualized Assessment Plans • Adapt assessments to individual needs by incorporating - Individualized Education Plan goals. **Key considerations** • Use simple, clear instructions. • Offer flexibility in demonstrating skills (e.g., verbal explanations, visual aids. **Incorporate Multi-Modal Assessment Tools** **Observation-Based Assessment** • Watch for participation, effort, and enjoyment. • Use a checklist or rubric to track observable behaviors (e.g., maintaining focus, executing a throw, waiting for a turn). **Task Analysis** • Break down curling activities into smaller steps (e.g., stance, slide, and release). • Assess mastery of each step individually.	**Student Self-Assessment** • Provide visual or tactile tools (e.g., smiley-face scales, colored cards) to help pupils indicate their feelings about their performance or comfort with skills. **Peer and Group Feedback** • Facilitate structured peer observations during group activities to build social skills and evaluate teamwork. **Use Visual and Tactile Supports** • Use visual schedules to outline the session and criteria for success. • Provide tactile markers for positioning during throws or practice. • Incorporate reward systems like token boards or immediate positive reinforcement. **Progress Monitoring** • Short-Term Goals - Track small, achievable milestones (e.g., completing a practice session without leaving the area, hitting a target stone). • Long-Term Goals - Evaluate cumulative skills like participating in a full game, collaborating with a partner, or applying basic strategies. • Data Collection - Maintain logs with date-stamped progress notes for individual pupils. • Record metrics like successful throws or cooperative actions.

4.3. Lesson Plan: Integrated Math and Physical Education Class: "Number Adventure"

<table>
<tr><th colspan="4">Learning Scenario and Implementation Plan-3</th></tr>
<tr><th colspan="4">Math in Motion: Exploring Numbers Through Physical Activity</th></tr>
<tr><td>Target Groups</td><td colspan="3">7–12 years pupils with autism (can be adapted for other ages)</td></tr>
<tr><td>Learning Objectives</td><td colspan="3">• Practice counting, addition, and subtraction through interactive physical activities.
• Develop gross motor skills and enhance focus through movement.
• Strengthen social interactions and cooperative skills.</td></tr>
<tr><th colspan="4">Competencies</th></tr>
<tr><td colspan="2">Numerical Understanding
Enhance skills in counting, measuring, addition, subtraction, multiplication, and division through physical tasks.</td><td>Collaboration and Communication
Foster teamwork, verbal and non-verbal communication, and cooperation during group activities.</td><td>Spatial Awareness and Movement
Build spatial reasoning through positioning, alignment, and movement.</td></tr>
<tr><td>Warm-up Activity</td><td colspan="3">(5–10 Minutes)
• Objective: Help students transition to the lesson and get ready for movement.
• Activity: "Counting Stretch"
• Stand in a circle.
• Count from 1 to 20 while doing a simple stretch for each number (e.g., reaching for toes, arm circles).
• Use a visual countdown chart to show progress.</td></tr>
<tr><th colspan="4">Main Activity
"Math Movement Stations" (20–30 Minutes)</th></tr>
<tr><td colspan="2">Divide the lesson into stations, each focusing on a math concept.
Station 1: Counting and Jumping
• Place numbered mats or hula hoops in a line (1 to 10).
• Students jump from one mat to the next, saying the number aloud as they jump.
• Extension: Use even or odd numbers only for older students.</td><td>Station 2: Addition and Subtraction Toss
• Use beanbags and a target board with numbers.
• Students toss a beanbag onto the board, note the number, and add it to or subtract it from a second toss.
• Visual supports: Use number lines or pictures to help with calculations.</td><td>Station 3: Shape Patterns Relay
• Arrange shapes (e.g., circles, squares, triangles) in a pattern.
• Students run to the shapes, identify the pattern, and place the next shape in sequence.
• Extension: Introduce more complex patterns (e.g., ABB, AAB).</td></tr>
<tr><th colspan="4">Instructions fo Teachers</th></tr>
<tr><td colspan="2">Preparation
Understand Student Needs
• Review Individualized Education Plans (IEPs) to understand each student’s sensory preferences, communication styles, and learning challenges.
Set Clear Goals
• Define what math concepts (e.g., addition, multiplication, geometry) you want the activity to reinforce.
Choose Adaptable Activities</td><td colspan="2">Number Toss
• Toss balls into buckets labeled with numbers and solve problems based on the numbers scored.
Geometry Relay
• Run to collect shapes and form specific geometric patterns.
Make it Collaborative
• Pair or group students to promote social interaction and teamwork while solving problems.
Communication</td></tr>
</table>

• Pick physical tasks that can be modified based on skill levels, ensuring participation from all students. • Visual Supports: Prepare visual aids like charts, cue cards, or diagrams to explain instructions step-by-step. Environment Setup **Safe Space** • Use a gym or open area that minimizes sensory distractions (e.g., dim lighting, reduced noise). **Zones for Tasks** • Create distinct areas for each part of the activity (e.g., a counting zone, a sorting station). **Transitions** • Use a timer or visual countdown to signal transitions between activities. **Activity Design** **Incorporate Movement** • Examples: - Counting Steps: Students walk a set number of steps (e.g., 5 steps forward, 3 steps back) and calculate the total distance traveled.	**Use Simple Instructions** • Speak clearly and break down tasks into manageable steps. Reinforce verbally and visually. **Model the Activity** • Demonstrate the activity before starting. **Reinforce Effort** • Provide positive feedback to encourage participation and confidence. **Accommodations** **Provide Options** • Allow students to participate at their own pace or choose roles in the activity (e.g., a counter, a runner). **Sensory Adjustments** • Offer noise-canceling headphones or breaks if needed. Facilitate Understanding • Use peer buddies or aides to assist with tasks. **Post-Activity Reflection** • Discuss the math concepts learned using the outcomes of the physical activity. • Allow students to share how they felt during the activity using words, visuals, or gestures.
Cool Down and Reflection	Sit in a circle, count backward, and discuss what they learned

Observational Tips	
Understand Individual Needs **Behavioral Patterns** • Observe how each student reacts to group settings. Some may prefer parallel play, while others might engage actively. **Sensory Preferences** • Identify sensory triggers or preferences (e.g., loud noises, bright spaces). **Strengths and Challenges** • Notice if they excel in visual tasks, prefer routine, or need more time to process. **Communication and Interaction** **Non-Verbal Communication:** • Pay attention to gestures, body language, and facial expressions for cues about engagement or discomfort. **Peer Interactions** • Observe how they interact with peers. Do they make eye contact, participate, or withdraw? **Clarity in Instructions** • Check if they follow instructions better with verbal, visual, or tactile cues. **Engagement in Activities** **Activity Participation** • Note how actively they engage with the physical activity.	**Interest Levels** • Observe which types of activities resonate with them, such as throwing a ball to answer a math question versus sorting objects by moving. **Motor Skills** **Coordination and Balance** • Pay attention to gross motor skills during activities like running or throwing. **Fine Motor Skills** • Notice if they can handle smaller objects used in activities, such as bean bags or small markers. **Adaptation Needs** • Are modifications like larger equipment or slower-paced tasks required? **Group Dynamics** **Turn-Taking Skills** • Observe their ability to wait and take turns in a group. **Collaborative Efforts** • Watch for signs of cooperation or resistance in working with others. **Peer Support** • Look for natural connections where peers can support or encourage participation. **Emotional Regulation** **Signs of Overwhelm** • Monitor for signs of overstimulation or frustration, such as hand-flapping, pacing, or verbal outbursts.

<table>
<tr><td>Are they trying to solve the math problems or just enjoying the movement?
Pacing
• Watch for signs of fatigue or frustration and adjust pacing accordingly.</td><td>Coping Strategies
• Observe their use of self-regulation techniques, like stepping back or seeking a quieter corner.</td></tr>
<tr><td colspan="2">Teaching Strategy</td></tr>
<tr><td>Integrated Learning
• Combine physical movement with math problems to enhance engagement and retention.
Visual and Sensory Support
• Use visual aids (e.g., flashcards, shapes, and numbers) and sensory-friendly equipment (e.g., soft balls, hoops, beanbags).
Clear and Consistent Instructions
• Keep verbal instructions short.</td><td>Structured Routine
• Start with a warm-up, transition to the main activity, and conclude with a cool-down and discussion.
Positive Reinforcement
• Use encouragement, praise, or rewards to motivate students.</td></tr>
<tr><td>Resource Utilization</td><td>Materials Needed
• Number cards (large, colorful, and easy to read).
• Hula hoops, beanbags, or cones for movement stations.
• Whiteboard and markers for visual instructions.
• A visual schedule of activities (using pictures and words).
• Noise-cancelling headphones for sensory-sensitive students.</td></tr>
<tr><td colspan="2">General Adjustment</td></tr>
<tr><td>For Advanced Learners
• Introduce more complex problems (e.g., double-digit addition, fractions).
• Use timed challenges to increase difficulty.
For Learners Requiring Support
• Provide one-step problems with visual supports (e.g., picture cards for addition).
• Use physical assistance or peer mentoring if needed.</td><td>Sensory Adjustments
• Allow noise-canceling headphones or quiet zones for sensory-sensitive students.
• Incorporate textured or weighted objects for added sensory input.
Pace Adjustments
• Give extra time to solve problems or break the session into smaller chunks.</td></tr>
<tr><td colspan="2">Teaching Tips for Teachers</td></tr>
<tr><td>Math Understanding
• Are they connecting the physical activity with the math concept being taught?
Repetition and Retention
• Note if they require repeated instructions or demonstrate retention of the concepts through the activity.
Progress Tracking
• Use observations to document growth in math skills and physical coordination over time.</td><td>Practical Strategies for Teachers
• Use visual schedules to map out the activity sequence.
• Incorporate clear, simple steps in the activity to avoid overwhelming them.
• Use peer modeling to demonstrate tasks before participation.
• Employ positive reinforcement to encourage desired behaviors and active involvement.</td></tr>
<tr><td colspan="2">Learning Outcomes</td></tr>
<tr><td colspan="2">Math Skills
• Ability to solve problems related to addition, subtraction, multiplication, fractions, or geometry.
Physical Skills
• Improved coordination, balance, and motor planning through movement.
Social Interaction
• Enhanced communication and teamwork in group settings.</td></tr>
</table>

Cognitive Development
• Improved focus, sequencing, and memory retention.
Enhanced Engagement
• Physical activities captivate students, making the lesson more dynamic and less monotonous.
Kinesthetic Learning
• Students who learn better through physical movement benefit from hands-on activities.
Social Interaction
• Group activities encourage collaboration and communication, fostering teamwork.
Improved Retention
• Combining physical activity with learning will help solidify concepts through muscle memory.
Sensory Regulation
• Physical movement will help students with autism self-regulate, enhancing focus and reducing anxiety.

Qualitative Feedback Indicators

Engagement and Participation
Observation of Enthusiasm
• Are students actively engaging in the activities with visible interest and excitement?
Task Focus
• Do students stay focused on the task or need frequent redirection?
Consistency in Participation
• Are students participating consistently across different activities?
Interaction and Social Skills
Peer Collaboration
• Do students interact positively with peers (e.g., sharing materials, taking turns, cooperating)?
Communication
• Are verbal or non-verbal communication methods being effectively used by students during the activity?
Conflict Resolution
• How well do students handle disagreements or challenges in group settings?
Learning Outcomes
Math Concept Understanding
• Are students demonstrating an understanding of the math concepts being taught through physical activities (e.g., counting, addition, sequencing)?

Application of Skills
• Are students able to apply these concepts within the activity or to related real-world examples?
Progress Over Time
• Is there a noticeable improvement in understanding or skill application over multiple sessions?
Emotional and Behavioral Regulation
Emotional Responses
• How do students respond emotionally during the activity? (e.g., signs of enjoyment, frustration, or anxiety)
Behavioral Adaptation
• Are students able to adapt their behavior to meet the requirements of the group activity?
Self-Regulation
• Can students manage overstimulation or frustration with support or independently?
Teacher and Peer Support Effectiveness
Responsiveness to Instructions
• How well do students respond to teacher instructions or prompts during the activity?
Use of Strategies
• Are teaching strategies (visual supports, prompts)

Developed Competencies

Mathematical Reasoning
• Understand and solve math problems in real-life scenarios.
Motor Skills
• Develop gross motor skills through running, throwing, and balancing activities.

Self-Regulation
• Manage transitions between tasks and cope with sensory input.
Collaboration
• Practice turn-taking and cooperation.

Measurement Criteria

Observation Checklist
• Monitor participation, problem-solving accuracy, and engagement levels during activities.
Performance Data

Differentiated Assessment
Individualized Expectations
• Set personalized success criteria based on each student's Individualized Education Program (IEP) or needs.

• Record the number of correctly solved problems or timed completion of tasks. **Student Reflection** • Use simple prompts like "Did you like this activity?" or "What was your favorite part?" **Parent/Teacher Feedback** • Share observations with parents or other educators to track progress. **Cognitive Goals** • Assess understanding of math concepts integrated into the activty. **Social Goals** • Evaluate teamwork, communication, and collaboration during group activities. **Motor Skills** • Assess physical abilities, coordination, and effort in physical tasks. **Engagement and Behavior** • Observe participation, focus, and adaptability to instructions.	**Process Over Outcome** • Focus on effort, participation, and problem-solving strategies rather than getting every answer correct. **Observational Approach** **Direct Observation** • Monitor participation and interaction during activities. **Video Analysis** • Record sessions (with consent) to review student behavior and performance post-activity. **Multi-modal Feedback** • Include both verbal and non-verbal cues, enabling students to understand how they are performing. **Assessment Tools** **Rubrics** **Group Collaboration Rubric** • Assess skills like turn-taking, sharing, communication, and participation. **Math Concept Rubric** • Evaluate understanding of math principles through PE activities.

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Supporting Children with Autism through Physical Education

Chapter 5

How to Increase the Motivation of Students with Autism in Physical Education

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CHAPTER 5

Increasing the Motivation of Students with Autism in Physical Education

This chapter Increasing the motivation of students with autism in Physical Education (P.E.) requires understanding their unique needs, interests, and challenges. Here are practical strategies:

1. Create a Predictable and Structured Environment

• Use Visual Schedules: Provide a visual schedule or agenda for the P.E. class so students know what to expect.

Example: "Warm-up → Activity 1 → Activity 2 → Cool-down." (use Kanban bord (see below))*

• Maintain Consistency: Keep routines and instructions consistent to reduce anxiety.

2. Offer Choices

• Allow students to choose between activities, equipment, or tasks.

Example: "Would you like to use the red ball or the blue ball?"

• Giving options fosters autonomy and engagement.

3. Tailor Activities to Their Interests

• Incorporate students' favorite themes, characters, or hobbies into P.E. activities.

Example: Use a superhero theme for obstacle courses or incorporate animals in movement games.

• Design games that resonate with their personal interests to spark excitement.

4. Use Positive Reinforcement

• Provide immediate and specific praise for effort and achievements.

Example: "Great job running to the cone!"

• Use tangible rewards (stickers, tokens, or breaks) if needed to reinforce participation.

5. Break Activities into Manageable Steps

• Simplify tasks by breaking them into smaller, achievable steps.

Example: Instead of saying, "Run to the cone, pick up the ball, and throw it," guide them step-by-step:

1. Run to the cone.
2. Pick up the ball.
3. Throw the ball.

• Celebrate success at each step to keep motivation high.

6. Use Visual Supports

• Provide visual cues, such as picture cards or posters, to explain rules or demonstrate movements (example, Kanban bord (see below)*).

• Use color-coded equipment or stations to make instructions clearer.

7. Incorporate Sensory-Friendly Adaptations

• Provide sensory tools like weighted vests, noise-canceling headphones, or sensory breaks for students who may feel overwhelmed.

• Choose quieter, less crowded areas for activities if students are sensitive to noise or large groups.

8. Focus on Individual Strengths

• Recognize and build on each student's strengths.

Example: If a student excels in balance, include balance beams or yoga poses in the lesson.

• Highlight their progress to boost confidence and motivation.

9. Make Activities Collaborative

• Use buddy systems or group activities to foster social interaction and teamwork.

• Pair students with peers who are patient and supportive, or assign specific roles in group games (e.g., scorekeeper, equipment helper).

10. Use Technology and Visual Media

• Introduce movement-based video games or apps that encourage physical activity in an engaging way.

• Use videos to model activities before students participate.

11. Provide Movement Breaks

• Offer short breaks between tasks to prevent fatigue or frustration.

• Include calming activities, such as stretching or breathing exercises, during transitions. 12. Set Realistic Goals

• Set small, attainable goals that align with each student's abilities.

Example: "Today, let's try to throw the ball into the hoop one time."

• Gradually increase difficulty as they gain confidence.

12. Celebrate Participation, Not Just Performance

• Praise effort and willingness to try, even if the student doesn't complete the task perfectly.

• Encourage them to focus on having fun rather than competing.

13. Create an Inclusive Atmosphere

• Use activities that can be adapted to different skill levels to ensure everyone can participate.

• Avoid overly competitive games; instead, focus on cooperative activities.

14. Engage Parents or Caregivers

• Share information about the P.E. lessons with parents or caregivers.

• Encourage them to discuss the activities at home to create familiarity and excitement.

By combining structure, choice, and personalized support, you can create a P.E. environment that encourages students with autism to engage, have fun, and develop physical skills at their own pace.

- Using a Kanban board in a P.E. class can be an effective way to visually organize the lesson and provide a clear, step-by-step structure for students with autism. Here's a practical guide to implementing it. A Kanban board is a visual tool that divides tasks into categories, such as:
  - To Do: Activities that are planned for the lesson.
  - In Progress: Activities currently being worked on.
  - Done: Completed activities.

This system helps students see the progression of tasks and understand what to expect next, which is particularly helpful for those who benefit from predictability and visual supports.

Steps to Use a Kanban Board in P.E.

1. Set Up the Board

• Use a portable whiteboard, poster board, or magnetic board.

• Divide it into three columns labeled to Do, In Progress, and Done.

• Use colorful cards, magnets, or Velcro-backed visual symbols for each activity.

2. Create Visual Cards for Activities

• Prepare picture cards or icons representing each part of the lesson, such as:

Warm-Up (e.g., a picture of stretching or running).

Main Activity (e.g., a badminton racket or a cone for an obstacle course).

Cool-Down (e.g., a person sitting and breathing deeply).

• Include a simple word or phrase on each card, such as "Stretching" or "Badminton."

• Use colors or themes that align with students' preferences to make the cards engaging.

3. Introduce the Board to Students

• At the start of the lesson, review the to Do column with the students.

Example: “First, we’ll stretch. Then we’ll do the hitting the shuttlecock. Finally, we’ll play badminton.”

• Demonstrate how the cards will move to in Progress and then to Done as the activities are completed.

4. Use the Board During the Lesson

• Transition Between Activities:

At the start of each activity, move the corresponding card from

To Do to In Progress.

Say, “Now we’re starting the obstacle course. Let’s move the card!”

• Celebrate Completion:

When an activity is finished, move the card to Done and praise the group.

Example: “We finished stretching! Great job! Let’s move it to ‘Done.’”

5. Encourage Student Participation

• Involve students in moving the cards:

Select a student to move the card at each transition to build engagement.

Use this as a reward or motivator for participation.

6. Adapt the Board for Individual Needs

• Simplify: If the full board feels overwhelming, reduce it to two columns: “Now” and “Next.”

• Personal Boards: For students needing extra support, provide individual Kanban boards to keep their focus on their tasks.

• Add Breaks: Include break cards in the sequence for students who require sensory breaks or downtime.

Advantages of Using a Kanban Board in P.E.

1. **Visual Clarity:** Helps students understand the flow of the lesson.
2. **Reduced Anxiety:** Knowing what’s coming next minimizes uncertainty.
3. **Task Progression:** Encourages and motivates students to see tasks through to completion.
4. **Engagement:** Moving the cards provides a hands-on, interactive way to stay involved.
5. **Motivation:** The satisfaction of moving cards to Done reinforces participation and effort.

Tips for Success

• Keep the board visible and accessible.

• Use bold, simple visuals for ease of understanding.

• Be consistent with the process each class so students become familiar with it.

Using a Kanban board in this way will help structure the P.E. lesson in a visual, hands-on, and autism-friendly manner.

5.1. Lesson Plan: Badminton for students with autism

Learning Scenario and Implementation Plan – 1	
Badminton for students with autism	
Target Groups	Students of all ages with autism
Learning Objectives	By the end of the lesson, students will be able to: • Demonstrate basic badminton skills such as serving, hitting, and moving on the court. • Participate in cooperative play with peers, using turn-taking and communication skills. • Follow instructions and understand basic rules of badminton. • Self-regulate emotions and manage frustrations. • Experience a sense of achievement and improved confidence through successful participation.
Competencies	
Physical Competencies:	**• Communication Skills:**

Motor Coordination and Control: Learning to grip the racket, serve, and hit the shuttlecock helps improve fine and gross motor coordination. Developing the ability to move around the court, control the racket, and track the shuttlecock enhances hand-eye coordination. • **Balance and Agility:** Basic footwork (side steps, forward and backward movement) helps students improve their balance and agility. • **Spatial Awareness:** Understanding court boundaries and positioning on the court will enhance students' ability to move in relation to the space around them. **Social Competencies:** **Teamwork and Cooperation:** Partner or small group activities encourage students to work together, share the court, take turns, and communicate with peers. By playing cooperatively, students will learn how to engage in shared activities and practice turn-taking.	Students will practice verbal and non-verbal communication (gestures, eye contact, and possibly words or signs) to interact with their peers during play. They may also use communication devices or boards if necessary, improving their ability to express themselves. • **Social Interaction:** Encourages social bonding and friendships through shared tasks. **3. Cognitive Competencies:** • **Attention and Focus:** Through structured activities and clear, consistent routines, students practice staying focused on the task at hand (e.g., hitting the shuttlecock or moving to the right spot). The use of visual timers or cues helps them understand time constraints and manage their attention. • **Problem Solving and Strategy:** As students progress in their skills, they begin to develop strategies for hitting the shuttlecock over the net and positioning themselves on the court. The cognitive task of planning the next move or anticipating the direction of the shuttlecock fosters critical thinking.
Emotional Competencies: **Self-Regulation:** Students will practice managing emotions during the game, such as frustration when missing a shot or excitement when achieving success. Using visual or verbal prompts, students can be encouraged to recognize and express their feelings in an appropriate way. • **Confidence and Self-Esteem:** Positive reinforcement and success in completing tasks (even small ones) will help students develop a sense of achievement and confidence. Encouraging participation in team-oriented tasks and peer recognition boosts self-esteem. • **Resilience:** Students learn to persevere even when faced with challenges (e.g., not hitting the shuttlecock perfectly). This builds resilience and a growth mindset.	**Sensory Competencies:** • **Sensory Processing and Regulation:** The lesson includes sensory-friendly accommodations, helping students with sensory sensitivities to stay comfortable and engaged. Students may learn to adjust to different sensory inputs (e.g., sound of the shuttlecock hitting the racket) and regulate their emotional responses accordingly. • **Self-Advocacy in Sensory Needs:** Students may develop the ability to recognize when they are overwhelmed by sensory inputs and communicate their needs (e.g., asking for a break or using noise canceling headphones). **6. Functional Competencies:** • **Task Management:** By following the structured routines (e.g., warm-up, skill development, game play), students practice following directions and completing tasks in a timely manner. • **Time Awareness:** Using timers or clear visual cues helps students understand how much time they have for each activity, improving their time management skills.
Warm-up Activity	• **Objective:** To prepare the body for physical activity and help students regulate sensory input. • **Activity:** Begin with a brief, calming music session or a light stretching routine. Incorporate exercises like arm swings, leg stretches, or jumping jacks.

	Use visual prompts to guide each movement (show images of actions like stretching, jumping). Use a visual timer to show when the warm-up is finished. Encourage students to match their movements with the rhythm of the music to improve motor coordination. • **Sensory considerations:** Avoid overwhelming sounds and visuals; choose calming music that is not too stimulating.
Main Activity	
Introduction to Badminton **(5 minutes)** • **Objective:** Introduce the basic concept of badminton and safety rules. • **Activity:** Show a short video or demo of a simple badminton game. Introduce the key components: racket, shuttlecock, and court boundaries. Explain the rules using simple language and visual aids (e.g., “hit the shuttlecock over the net”). Emphasize safety: "Rackets are for hitting shuttlecocks, not people." • Sensory considerations: Avoid overstimulation with visual aids, keep instructions simple, and check for student understanding. **Skill Development (10 minutes)** • **Objective:** Teach basic badminton skills: grip, serving, and hitting the shuttlecock. • **Activity:** Grip Practice: Show how to hold the racket with a "shake hands" grip. Allow students to practice by holding the racket for a few seconds. **Serving Practice:** Demonstrate how to serve underhand. Use a visual cue (e.g., a picture showing the action) to reinforce steps. **Shuttlecock Hitting**: Have students practice hitting the shuttlecock gently in the air or against a wall. Begin with a soft, easy-to-hit shuttlecock.	**Footwork:** Teach basic movement around the court with visual markers (cones) to demonstrate where to move. Start with simple side steps. • Sensory considerations: Use soft shuttlecocks and ensure the space is not overly crowded, giving each student ample space to practice. • Positive reinforcement: Use praise or a reward system (stickers, tokens) for successful attempts, no matter how small. **Structured Activity/Partner Play (12 minutes)** • **Objective:** Encourage social interaction and teamwork while practicing badminton skills. • **Activity**: Pair students based on similar abilities or interests. Assign simple, structured tasks (e.g., one student serves, the other returns the shuttlecock). For students with sensory sensitivities, use headphones or earplugs to minimize noise, or allow for breaks if necessary. Ensure students understand the turn-taking process (visual timer or count down for each student’s turn). Encourage verbal or non-verbal communication, such as saying “Your turn!” or using gestures. • **Sensory considerations**: Make sure to adjust the level of noise, lighting, and space based on individual preferences (calming vs. stimulating).
Instructions fo Teachers	
Use Clear, Positive Reinforcement • **Praise Efforts, Not Just Results:** Offer specific praise for small achievements, such as “Great job holding the racket!” or “Nice try with the serve!” This helps build confidence and encourages continued effort, even when the task is difficult. • **Reward System:** Implement a reward system (e.g., stickers, tokens, or a points chart) to celebrate progress. Rewards can be used for achieving specific goals like completing a certain number of successful serves or practicing for a set period. • Immediate **Feedback:** Provide immediate and consistent positive feedback to acknowledge their efforts and progress. For example,	• **Encourage Self-Expression:** Allow students to express their preferences and needs, such as the type of activity they enjoy most or how much time they want to spend on a particular task. When students feel their choices are respected, they are more motivated to engage. **Use Interests to Spark Engagement** • **Incorporate Students' Interests:** If students have specific interests (e.g., animals, superheroes, colors), use those interests in the lesson to make it more appealing. For example, students can pretend the shuttlecock is a flying bird or that they are superhero athletes. • **Relate Badminton to Their Everyday Life:**

"You did really well staying focused for the whole warm up!" **Make the Lesson Fun and Engaging** • **Incorporate Playfulness:** Add fun elements, like creating games or challenges, to make the lesson more enjoyable. For instance, students can participate in a "shuttlecock challenge," where they try to hit the shuttlecock in the air for a certain amount of time. • **Variety of Activities:** Keep the lesson dynamic by offering different activities, such as individual practice (e.g., serving), partner work (e.g., volleying), or small-group games. This variety helps maintain attention and keeps students engaged. • **Incorporate Music:** Use music to create an energetic, fun atmosphere. Calming music can be used for warm-ups or cool-downs, while upbeat music can help energize students during practice or team challenges. • **Introduce Friendly Competitions:** Healthy, non-pressured competitions (like who can hit the shuttlecock the most times in a row) can motivate students and add excitement to the lesson. Ensure the focus is on fun and participation rather than winning. **3. Provide Clear Expectations and Structure** • **Use Visual Supports:** Provide visual cues (posters, step-by-step instructions, or a visual timer) to help students understand the structure of the lesson and what they are expected to do. Visual supports provide clarity and reduce anxiety. • **Break Down Tasks:** Break down each skill (e.g., serving, hitting, footwork) into smaller, manageable steps. Celebrate mastery of each small step to keep students motivated as they progress. • **Routine and Predictability:** Maintain a consistent routine throughout the lesson. Knowing what to expect (e.g., starting with warm-up, followed by practice, then games) can help reduce anxiety and improve focus, which in turn keeps motivation high. **4. Foster a Positive and Supportive Environment** • **Create a Safe Space:** Ensure that students feel emotionally and physically safe to participate. Offer them a calm-down space if needed and encourage them to take breaks. This helps reduce stress and increases motivation to engage when ready. • **Promote Peer Support:** Pair students up with supportive peers for certain activities. Peer encouragement can help boost confidence and create a sense of camaraderie.	Help students connect badminton to real-life situations. For example, explain that badminton is like a game of "catch" or "volleying" in a playful way, which might resonate more with their understanding. **Provide Opportunities for Success** • **Set Achievable Goals:** Set short-term, achievable goals that allow students to experience success. For example, "Let's see if we can hit the shuttlecock three times in a row," or "Can you serve the shuttlecock over the line?" • **Focus on Progress, Not Perfection:** Emphasize improvement over perfection. Celebrate small improvements, like a better serve or more consistent hits, to build confidence and maintain motivation. • **Encourage Reflection:** After the lesson, ask students what they enjoyed most or what they are proud of accomplishing. Giving them a chance to reflect helps them internalize their achievements and motivates them for future lessons. **Tailor to Sensory Needs** • **Modify the Environment:** Adjust the sensory environment to avoid distractions and make the lesson more enjoyable. For students sensitive to noise, use headphones or ensure the space is quiet. For students who are overstimulated by movement, offer quieter, more focused activities. • **Offer Sensory Breaks:** Allow students to take breaks when needed. Offering short sensory breaks during the lesson (such as quiet time or engaging in a calming activity) helps prevent sensory overload and maintains motivation. **Promote a Growth Mindset** • **Normalize Mistakes:** Encourage a growth mindset by normalizing mistakes as part of the learning process. Use phrases like "It's okay to make mistakes; that's how we learn!" or "You'll get better with practice!" • **Celebrate Effort and Persistence:** Focus on the effort and persistence students put in rather than the outcome. Reinforce that trying their best and practicing regularly is more important than the result. Motivating students with autism in a badminton lesson involves creating a supportive and engaging environment that is sensitive to their individual needs. By using clear structure, positive reinforcement, incorporating students' interests,

Students often feel more motivated when they are working together as a team.	and providing opportunities for success, you can increase their motivation.
Cool Down and Reflection	(6 minutes) • **Objective**: To help students wind down and reflect on their learning experience. • **Activity:** Guide students through a cool-down process (gentle stretching, slow walking). Allow a few minutes for students to reflect on the lesson. Use a visual reflection board where students can point to symbols like "Happy," "Great," or "Okay." For students who are non-verbal or have limited communication skills, use a communication device or card to express feelings. Encourage students to give positive feedback to their peers (e.g., "Nice job!" or "Well done!"). • **Sensory considerations**: Keep the cool-down area quiet and relaxing, with soft lighting if possible.
General Adjustment	
• **Visual Aids**: Use clear visual instructions (pictures, videos, step by-step guides) for students who benefit from visual learning. • **Peer Support**: Pair students with supportive peers for modeling and positive interaction. • **Communication Support**: Provide communication boards, sign language, or augmentative devices for students with communication difficulties. • **Difficulty with Communication**: Some students with autism may struggle with verbal communication. It may be necessary to use alternative communication systems (like sign language, picture cards, or communication devices) to help them understand instructions or express their needs. • **Sensory Adjustments**: Adjust the environment based on students' sensory needs (e.g., lighting, noise levels, physical space).	• **Flexibility**: Allow for breaks if needed, and provide flexible time limits for activities to avoid frustration. •**Positive Reinforcement**: Use a reward system to encourage participation, praise effort, and celebrate achievements. **Sensory Overload:** Some students with autism may become overstimulated by the sounds, movements, or sensory inputs involved in physical activities. It's important to watch for signs of overload and provide sensory breaks or accommodations as needed. • **Difficulty with Social Interactions:** While badminton can be a social activity, students who struggle with social communication may need extra support in interacting with peers. Consider using structured interactions, such as simple partner drills or games, to facilitate socialization.

5.2. Lesson Plan: Orienteering for Students with Autism

Learning Scenario and Implementation Plan-2	
Orienteering for Students with Autism	
Navigating a Simple Orienteering Course	
Target Groups	Students of all ages with autism
Learning Objectives	To teach students with autism basic orienteering skills such as map reading, using landmarks, and following simple routes while fostering teamwork and communication: • Understand how to use a simple map to find locations. • Navigate between 3 checkpoints using visual markers. • Practice teamwork and communication in pairs or small groups.

<table>
<tr><th colspan="4">Competencies</th></tr>
<tr><td colspan="2">Cognitive - Map reading, Problem-solving, Memory, Sequencing Physical - Movement, Coordination</td><td>Social - Teamwork, Communication, Rule-following Emotional - Confidence, Resilience</td><td>Orientation, Decision-making, Time management Sensory - Sensory processing, Visual/auditory focus</td></tr>
<tr><td>Introduction</td><td colspan="3">Orienteering is an engaging physical activity that combines navigation and physical exercise. For students with autism, the lesson should be structured, visually supported, and involve predictable, step-by-step processes. The activity can help improve spatial awareness, problem solving, and social interaction in a controlled environment.</td></tr>
<tr><th colspan="4">Main Activity</th></tr>
<tr><td colspan="2">Learning Scenario for four weeks
Week 1: Introduction to Orienteering
• Objective: Familiarize students with the basic tools and concepts of orienteering.
• Activities:
Introduction: Briefly explain what orienteering is using pictures or a short video.
Map Basics: Teach simple map-reading skills, such as identifying symbols (trees, paths) and understanding directions.
Practice Task: Match landmarks on a map to real objects in the environment.
• Support: Use a large laminated map with Velcro markers to make the activity interactive.
Week 2: Navigating a Simple Route
• Objective: Teach students to follow a pre-planned route using a map.
• Activities:
Visual Demo: Show how to find a starting point and trace a route on the map.
Group Task: Students work in pairs to navigate between 2–3 checkpoints marked with cones or flags.
Reflection: Gather as a group and discuss the experience using a simple visual chart to indicate feelings (happy, neutral, frustrated).
• Support: Provide a checklist for each checkpoint, including a visual marker of what they will see at each location.
Week 3: Problem-Solving with Obstacles
• Objective: Introduce simple decision-making and problem solving during orienteering.
• Activities:
Route with Challenges: Create a course with detours or barriers requiring students to adapt their paths (e.g., "Go around the bench and find the tree").
Role Play: Assign one student as the "navigator" and another as the "checker" to encourage teamwork.
• Support: Use a laminated card with step-by-step instructions on handling obstacles.
Week 4: Orienteering Mini-Challenge</td><td colspan="2">• Objective: Set the tone and explain the activity.
• Steps:
Welcome the students and introduce the lesson with a visual card: “Today we’ll use a map to find places!”
Show a large example map and explain how to find the “You Are Here” point.
Point to landmarks on the map and match them to real life objects nearby (e.g., tree, bench).
Use simple, repetitive language: “We look at the map. We walk to the cone. We stop!”
Map Practice (10 minutes)
• Objective: Teach how to locate a starting point and follow a route.
• Steps:
Distribute laminated maps. Help each student or pair find their starting point (“Look for the red star on your map”).
Guide the students in tracing the route from the starting point to the first checkpoint with their fingers. Demonstrate walking to the first checkpoint while holding the map, pointing at the cone/flag to ensure clarity.
• Support:
Use one-on-one guidance or peer buddies.
Show visual task cards (e.g., “Look at map,” “Walk,” “Stop at cone”).
Orienteering Activity (20 minutes)
• Objective: Students navigate a simple course with 3 checkpoints.
• Steps:
Pair up students or assign small groups (2–3 students each).
Each group receives their map and starts at the designated “You Are Here” point.
Guide students to locate and walk to each checkpoint, following the route on the map.
At each checkpoint, students complete a small task (e.g., match a picture, count objects, or identify a color). Ensure staff or volunteers are positioned at checkpoints to assist and encourage students.</td></tr>
</table>

• **Objective:** Apply learned skills in a supervised, fun orienteering challenge. • **Activities:** **Team Orienteering:** Students work in small groups to navigate a course with 4–5 checkpoints. Each checkpoint includes a simple task (e.g., count objects, identify a color). **Celebration:** End with a group photo and a small reward for participation. • **Support**: Provide visual cues at each checkpoint and a clear "finish line." **One Lesson Structure, topic: Navigating a Simple Orienteering Course** **Introduction (5 minutes)**	• **Safety Tip:** Mark the course boundaries clearly and remind students not to wander beyond. **Reflection and Wrap-Up (5 minutes)** • **Objective:** Celebrate achievements and reinforce learning. • **Steps:** Gather the students back in the starting area. Use a visual chart to discuss feelings (e.g., "Did you like finding the cones? Show me happy, okay, or not happy"). Hand out small rewards or stickers as recognition for participation. Recap the activity with visual aids: "We used a map, walked to the cones, and finished the course. Great job!"
Instructions for Teachers	
Before the Lesson **Connect with Interests:** Use maps featuring familiar objects, favorite colors, or themes (e.g., animals or superheroes) to spark interest. Include a story element like "We're explorers looking for hidden treasures!" **Preview the Activity:** Send a visual schedule or social story home beforehand to prepare students for what to expect. Use visual cards to show what they will do (e.g., "Walk, Find the Cone, Celebrate!"). **During the Lesson** **Positive Reinforcement:** Use verbal praise and specific encouragement like, "Great job finding the cone!" or "You're a great navigator!" Give tangible rewards (stickers, stamps) at each checkpoint to maintain engagement. **Create a Visual Goal:** Use a finish-line banner or colorful target to signify the end. Display progress visually (e.g., a chart where each checkpoint is a "level" to unlock). **Incorporate Sensory Breaks:** Provide short breaks with sensory-friendly activities (like squeezing a stress ball) if students feel overwhelmed. Celebrate small steps to keep motivation high without overloading them. **Use Peer Role Models or Buddies:** Pair students with enthusiastic peers who can demonstrate the activity and encourage participation. **After the Lesson** **Celebrate Success:**	**Difficulty with Transitions** • **Challenge:** Moving between checkpoints or starting a new activity might cause anxiety or resistance. • **Solution:** Use visual schedules or transition cues (e.g., "First we find the cone, then we rest"). Offer countdowns before transitions (e.g., "In 3 minutes, we go to the next point") map or navigate the course independently. • **Solution:** Simplify maps with clear symbols and fewer details. Pair students with a buddy or assistant for guidance. Use visual markers (e.g., bright flags, cones) to make navigation easier. **Communication Barriers** • **Challenge:** Students with limited verbal communication may have difficulty asking for help or understanding instructions. • **Solution:** Use visual supports, such as picture cards or step-by-step guides. Encourage nonverbal communication, like pointing or using gestures. Provide clear, simple instructions and repeat as needed. **Short Attention Spans** • **Challenge:** Students may lose interest in the activity if it's too long or complex. • **Solution:** Keep tasks short and achievable, with frequent breaks. Incorporate engaging elements like small rewards or tasks based on their interests.

Highlight accomplishments, even small ones, with a group cheer, high-fives, or certificates. Use a visual reward chart to show what they achieved. **Reflect Positively:** Ask simple questions like, "What was your favorite part?" and reinforce their answers with smiles and acknowledgment. Display photos or drawings of their achievements (with consent) to create lasting positive memories. **General Tips** • **Keep it Fun and Predictable:** Predictable routines provide comfort, while fun tasks maintain interest. • **Offer Choices:** Let students choose between simple tasks at checkpoints to give them a sense of control (e.g., "Do you want to count the cones or find the flag?"). • **Stay Flexible:** Adapt the activity based on their energy and mood—celebrate any participation as a win. **Sensory Sensitivities** • **Challenge:** Some students may feel overwhelmed by sensory input in the outdoor environment, such as noise, bright sunlight, or unfamiliar textures (grass, dirt). • **Solution:** Choose a quiet, controlled location. Allow students to wear sunglasses, hats, or noise canceling headphones. Provide sensory breaks or calming activities if needed.	**Safety Concerns** • **Challenge:** Students might wander off or struggle to understand boundaries. • **Solution:** Clearly define the course boundaries using cones, flags, or natural landmarks. Ensure sufficient adult supervision, with staff or volunteers stationed at key points. Use identification tags or bracelets for students with a tendency to wander. **Social Interaction Challenges** • Challenge: Some students may feel uncomfortable working with peers or in groups. • **Solution:** Allow students to choose whether to work alone, in pairs, or in small groups. Assign roles within groups to give each student a clear responsibility (e.g., map holder, navigator). **Resistance to Change or Novelty** • **Challenge:** Students may resist participating in a new activity or feel anxious about the unknown. • **Solution:** Use social stories or previews to explain the activity in advance. Maintain a consistent structure and routine throughout the lesson.

Teaching Strategy	
Resource Utilization	• Simple laminated maps of the course (1 per student or pair). • Color-coded cones or flags for checkpoints. • Visual instruction cards (with symbols and steps). • Small rewards (e.g., stickers, certificates). • Whistle or bell to signal time checkpoints. **Setting** • **Environment:** A familiar and safe outdoor area like a school playground, park, or open field with clearly marked boundaries. • **Group Size:** Small groups (2–4 students per group) to maintain focus and ensure safety.

General Adjustment	
Differentiation Strategies **Task Simplification** • **Strategy:** Adjust the complexity of the tasks based on students' abilities. **For beginners:** Use a simplified map with clear, bold visuals and fewer details. Provide direct guidance for navigation. For advanced learners: Include more checkpoints, slightly complex routes, or additional tasks like identifying landmarks. **Adjusting Group Dynamics**	**Sensory Accommodations** • Provide sensory tools like noise-canceling headphones, fidget toys, or a sensory break zone for overstimulated students. • Use natural sensory motivators like a tree to sit under or a quiet bench as checkpoints. **Behavioral and Emotional Support** **Positive Reinforcement** • Offer immediate rewards tailored to individual preferences (e.g., stickers, verbal praise, or a favorite activity).

• **Strategy:** Provide different participation options. **Independent learners:** Allow them to complete the course individually at their own pace. **Social learners:** Pair them with a buddy or group to encourage collaboration and teamwork. **Sensory-sensitive learners:** Provide a quieter, alternative course with fewer distractions. **Offering Choices** • **Strategy:** Allow students to make choices to increase engagement. **Example:** Let students select which route to follow (e.g., red path vs. blue path) or which task to complete at a checkpoint. **Multiple Modes of Instruction** • **Strategy:** Present instructions in various ways to cater to different learning styles. **Visual learners:** Use picture cards, diagrams, or color coded maps. **Kinesthetic learners:** Practice routes physically with hands-on guidance before starting. **Auditory learners:** Provide verbal prompts or audio cues. **Individualized Support** **Tailored Maps** • Create personalized maps with: Clear start and endpoint indicators. Enlarged symbols or tactile elements (e.g., raised surfaces for students with visual impairments). **One-on-One Assistance** • Assign a teaching assistant or volunteer to provide guidance for students needing extra help. • Use consistent prompts or cues to reduce confusion (e.g., "Point to the cone, walk to it"). **Visual and Physical Boundaries** • For students prone to wandering, mark the boundaries with cones, ribbons, or portable barriers. • Create a smaller course for students who may struggle with larger spaces.	• Use token systems for students who respond well to visual progress tracking (e.g., collecting stars for each checkpoint). **Social Stories** • Use social stories before the lesson to explain the activity and reduce anxiety. • Example: "We will use a map to find cones. First, we look at the map. Then we walk to the cone. We will have fun!" **Flexible Pacing** • Allow students to progress at their own pace, providing extra time for those who need it. • Offer early finishers an additional task (e.g., coloring a map or counting extra landmarks). **Progress Monitoring** • Track each student's success based on their individual goals, such as: **Goal 1:** Navigating one checkpoint independently. **Goal 2:** Completing a task at each checkpoint with minimal prompts. **Goal 3:** Participating actively in a group setting. **Communication Tools** • Provide alternative communication options, such as: Picture Exchange Communication System (PECS) cards to ask for help or signal needs. Yes/no cards or emotion boards to express feelings during the activity. **Parental and Caregiver Input** • Collaborate with parents or caregivers to understand the student's needs and preferences. • Incorporate familiar routines or supports that work well for the student in other settings.

5.3. Lesson Plan: Move, Think, Discover: Let's Travel Together!

Learning Scenario and Implementation Plan-3	
Teaching Orientation skills for students with autism	
Target Groups	Students 7-10 years old
Learning Objectives	By the end of the lesson, students will: 1. Demonstrate basic orientation and navigating skills, such as recognizing directions (left, right, forward, backward). 2. Follow a simple, structured routine involving spatial navigation.

<table>
<tr><td></td><td colspan="2">3. Improve gross motor coordination through active engagement in sports-related movements.
4. Build confidence in engaging with peers in a physical activity setting.</td></tr>
<tr><td colspan="3">Competencies</td></tr>
<tr><td colspan="2">Motor Skills: Enhancing physical abilities through movement activities.
Spatial Awareness: Developing an understanding of positioning and navigation in a defined space.</td><td>Social Skills: Encouraging peer interaction and teamwork.
Self-Regulation: Managing sensory inputs and transitions in a structured environment.</td></tr>
<tr><td>Warm-up Activity</td><td colspan="2">Warm-Up (7 minutes)
Objective: To prepare the body for movement and begin developing basic spatial awareness concepts.
• Activity: "Follow the Leader"
The teacher (or a peer) leads the students in simple movements such as turning in different directions, walking forward, stepping backward, and stopping.
Give clear verbal instructions: "Turn left," "Step backward," "Walk forward," and so on.
Students follow along, mirroring the movements.
Modifications:
• Use visual cues such as arrows or signs to indicate the direction of movement.
• If needed, provide physical guidance by gently supporting students' arms or hands as they follow instructions.
Incorporating Social Skills:
• Encourage eye contact and acknowledgment when each student follows a direction correctly.
• Provide verbal reinforcement like, “Great job turning left!” or “Nice work stepping back!”</td></tr>
<tr><td colspan="3">Main Activity</td></tr>
<tr><td colspan="2">Main Activity 1 (13 minutes)
Objective: Practice left, right, forward, and backward movements and help students understand their body’s position in space.
• Activity: "Directional Game with Cones"
Set up a simple course using cones or markers. Label them with clear visual cues or colors (e.g., blue for “left,” red for “right,” yellow for “forward,” green for “backward”).
Give verbal commands, such as "Walk to the blue cone (left)" or "Turn to the red cone (right)."
Have students navigate from one cone to another, practicing their ability to understand spatial directions and orient themselves.
Modifications:
• Use large, brightly colored cones to ensure visibility.
• Provide a peer buddy to assist with understanding direction (e.g., guiding the student by gently pointing in the direction to go).
• If a student struggles with one direction, simplify the task by reducing the number of steps.
Incorporating Social Skills:</td><td>Main Activity 2 (13 minutes)
Objective: Reinforce directional orientation in a dynamic, cooperative activity.
• Activity: "Obstacle Course with Directional Cues"
Create a simple obstacle course where students must follow specific directions to navigate through. The course could include walking through cones, crawling under a rope, jumping over soft obstacles, and turning around certain points.
Provide verbal instructions like, "Step over the red cone," "Turn right at the blue cone," "Hop forward over the
yellow cushion," etc.
Use a visual checklist or cue cards to remind students of the directions at each stage.
Modifications:
• If certain students find the course overwhelming, allow them to engage with parts of the course that are comfortable for them.
• Adjust the obstacles for students with mobility challenges, such as offering the option to walk around rather than over obstacles.
Incorporating Social Skills:</td></tr>
</table>

• Pair students together to encourage peer interaction. Encourage them to assist each other in recognizing directions. • Use phrases like, “You helped your friend turn right. Great teamwork!”	• Have students work in pairs or small groups, providing opportunities for communication and collaboration. • Praise positive teamwork, such as waiting for the other student to complete a section before proceeding.
Instructions for Teachers	
Leverage Individual Interests Students with autism often have specific interests or passions that can be used as motivators. By incorporating their interests into the lesson, you can increase their motivation and engagement. • **Personalized Cues:** If a student has a particular interest (e.g., animals, cars, trains), use related imagery, toys, or language to make the lesson more engaging. For example, use animal themed visual cues for directions, such as "Turn left like a lion turning to pounce!" or "Hop forward like a bunny!" • **Relate Activities to Interests:** If a student loves a particular hobby, like sports, use terms or equipment related to that interest (e.g., using a soccer ball to teach direction, or having a “racecar” activity to promote fast, directional movement). **Create a Structured and Predictable Environment** Students with autism often thrive in structured, predictable environments where they know what to expect. Ensure the lesson is organized with clear steps and visual schedules. • **Visual Schedule:** Provide a visual schedule of the day's activities, showing the sequence of the lesson (e.g., warm-up, obstacle course, direction games, cool-down). This helps students anticipate what will come next and reduce anxiety. • **Clear Instructions:** Use consistent routines and clear, simple instructions throughout the lesson. This minimizes confusion and supports students in knowing what is expected. **Offer Positive Reinforcement and Rewards** Positive reinforcement is crucial in motivating students to participate and perform tasks. • **Immediate Rewards:** Reinforce desired behaviors immediately after they occur (e.g., "Great job turning left! Here's a sticker!"). Rewards can include praise, tokens, or a favorite activity (e.g., playing with a toy after successfully completing a task). • **Use a Token System:** If students engage in the activity or follow instructions, they can earn tokens that accumulate toward a larger reward. This provides a visual representation of progress. • **Non-Material Rewards:** For some students, social rewards such as praise, high fives, or peer recognition (e.g., "Everyone cheer for [name], they	**Provide Opportunities for Choice** Giving students a sense of control over their learning can enhance motivation and reduce resistance to participation. • **Choice in Activities:** Offer options for students to choose from, such as selecting the type of obstacle course or choosing which direction they want to practice first. For example, ask, "Do you want to go forward to the blue cone or turn left to the red cone?" • **Choice of Role:** Let students take turns in different roles (e.g., being the “leader” for directing others, choosing the direction for the group, or being the first to try a task). This fosters engagement by allowing students to feel more in control. Promote Social Engagement and Peer Support Encouraging social interaction can boost motivation, especially if students can work together or support each other. • **Peer Buddies:** Pair students who may need extra support with a peer buddy to model the behaviors and provide guidance. Peer buddies can help guide the student through the activity and provide positive feedback. This promotes collaboration and social interaction. • **Group Work:** Incorporate activities where students must work together, such as following directions as a team or helping one another through an obstacle course. This reinforces a sense of community and gives students motivation to participate in a group setting. **Gradual Increase in Complexity** • Begin with Simple Movements: Start with very basic movements (e.g., moving forward, turning in place) before introducing more complex tasks. This allows students to gain confidence before they are challenged with more difficult tasks. • **Break Down Tasks:** For complex activities, break them down into smaller, manageable steps. For instance, you could first practice walking forward in a straight line, then later introduce turning or navigating obstacles. • **Adapt to Progress:** Be flexible and adapt to students' progress. If a student is struggling with a task, break it down further or offer extra practice time. Celebrate their achievements, no matter how small. **Use of Technology and Visual Supports**

did a great job following directions!") can be powerful motivators. **Incorporate Sensory-Friendly Approaches** • **Modify the Environment:** Adjust the lighting, noise levels, and visual stimuli in the space. If loud noises or bright lights may cause discomfort, offer noise-canceling headphones or provide a calm space where students can go if they feel overwhelmed. • **Physical Comfort:** Ensure that students are comfortable in their clothing and that the physical activity is appropriate for their motor abilities (e.g., offering softer, safer obstacles for students with motor difficulties). **Use Visual and Physical Cues** Visual supports and physical cues are key for guiding students through the lesson and helping them understand and follow directions. • **Visual Cues for Direction:** Use large, clear visual aids to show directions (e.g., arrows, pictures of the movement). For example, you could use a picture of a person walking forward to signal the forward movement, or an arrow to show turning left or right. • **Physical Demonstration:** Physically demonstrate each movement or direction by modeling the actions yourself or using a peer buddy.	For some students with autism, digital tools and technology can enhance learning and motivation. • **Interactive Apps:** There are apps designed to promote physical activity and orientation, such as interactive games that guide students through directional movement. • Videos and Visual Demonstrations: Use videos or animation that show different movements and directions. Visual models often provide a clearer understanding of the task and can be more engaging for students. **Create a Rewarding, Positive Atmosphere** Ensure that the lesson is a fun, enjoyable experience rather than a stressful one. A positive atmosphere increases students' motivation to participate and learn. • **Encourage Positive Emotions:** Celebrate the effort, not just the outcome. Acknowledge each student's participation with positive reinforcement, even if they are still learning. For example, "You tried your best to move forward, great work!" • **Make Learning Fun:** Incorporate elements of play, like turning the activity into a fun race or challenge. Adding music, sound effects, or playful themes (e.g., "We're training to be superheroes following directions!") can make the lesson more enjoyable and exciting.
Cool Down and Reflection	**Cool-Down (7 minutes)** **Objective:** Promote relaxation and help students process the lesson. • **Activity:** "Slow Movements and Breathing" Lead students in slow, mindful movements to relax their bodies after the activity. Use gentle stretches, such as reaching for the sky, bending forward to touch toes, and shoulder rolls. Incorporate deep breathing exercises (e.g., "Breathe in through your nose, out through your mouth") to help with self-regulation. **Modifications:** • Provide calm music or visuals to create a sensory-friendly environment. • Allow students to sit or lie down if they feel overstimulated.
Resource Utilization	• Cones or markers (preferably colorful) • Visual cue cards or signs (for left, right, forward, backward) • Soft obstacles (foam blocks, cushions, ropes) • Visual schedule or checklist • Music or calming sounds for the cool-down
General Adjustment	
Differentiation in Teaching Styles **Verbal Communication** • **For students with limited verbal communication:** Use visual supports, such as symbols or picture cards, to represent directions (left, right, forward, backward). These visuals can be displayed alongside the teacher's verbal cues or used in a simple, written form.	• **Faster Pacing for Advanced Learners:** For students who quickly grasp the concept of directions and orientation, provide opportunities for them to move through the activities faster or offer additional challenges, such as incorporating more complex instructions. **Promote Social Engagement and Peer Support**

• **For students with strong verbal skills:** Offer verbal explanations and encourage them to verbally repeat the directions before executing the movements. This can help reinforce their understanding and build their communication skills.

Physical Guidance

• **For students with motor difficulties:** Provide additional physical assistance to help them navigate the course, such as gently guiding their hand or arm to help them make the correct movements. Alternatively, offer modified movements (e.g., walking instead of running, or sitting down to perform tasks if needed).

• **For students with better motor skills:** Allow them to complete the activities at their own pace, encouraging them to follow the directions more quickly and with more complex movements.

Adaptations to Activities

Activity 1: Directional Game with Cones

• **Modified Cone Course:**

For students with mobility challenges: Reduce the complexity of the course or make it more accessible by allowing students to walk, use mobility aids, or take breaks when needed.

For students who struggle with depth perception: Use larger, more distinct markers (like oversized cones) and ensure they are placed at a close distance to reduce
difficulty in distinguishing directions.

For students who require additional time: Allow more time for students to process and react to the direction cues. Ensure that directions are delivered at a slower pace and that students can repeat movements if necessary.

Activity 2: Obstacle Course with Directional Cues

• **Flexible Obstacles:**

For students with sensory sensitivities: Use soft, non threatening materials for obstacles (e.g., foam pads instead of harder objects), and avoid loud noises or sudden changes in the environment.

For students who find the course too challenging: Simplify the obstacle course by reducing the number of directions or making the obstacles lower in height or size.

For more advanced students: Increase the complexity of the course by adding additional tasks (e.g., jumping, spinning, or incorporating turns while navigating the obstacles).

Visual Supports and Cues

• **Visual Timetable:** For students who benefit from structure and predictability, provide a visual

Encouraging social interaction can boost motivation, especially if students can work together or support each other.

• **Peer Buddies:** Pair students who may need extra support with a peer buddy to model the behaviors and provide guidance. Peer buddies can help guide the student through the activity and provide positive feedback. This promotes collaboration and social interaction.

• **Group Work:** Incorporate activities where students must work together, such as following directions as a team or helping one another through an obstacle course. This reinforces a sense of community and gives students motivation to individual interests, strengths, and sensory needs.

Sensory Sensitivities

Many students with autism experience heightened sensitivity to sensory stimuli such as noise, bright lights, textures, or even certain smells.

Challenges:

• Overstimulation from loud noises, bright lights, or large groups can lead to anxiety or meltdowns.

• Some students may become overwhelmed by physical contact (e.g., when guiding a student physically).

Solutions:

• Create a sensory-friendly environment by adjusting lighting, minimizing noise, and providing noise-canceling headphones if necessary.

• Use soft, non-invasive materials for activities (e.g., foam cones instead of plastic cones).

• Allow students to take sensory breaks in a quiet space if needed.

Difficulty with Transitions

Students with autism may struggle with transitioning from one activity to another. This could involve difficulty understanding what is coming next, as well as difficulty managing the physical or emotional shift.

Challenges:

• Resistance or anxiety when moving from one activity to another (e.g., from the obstacle course to a game or cool-down).

• Students may become upset or confused by changes in routine, especially if they are unprepared for the transition.

Solutions:

• Provide a visual schedule to prepare students for upcoming activities.

• Use clear and consistent cues (e.g., verbal warnings or countdowns) when transitioning.

• Allow students to practice transitions in a low-stress environment to build familiarity and reduce anxiety.

Difficulty with Understanding Directions

schedule of the day's lesson (using pictures for each activity). This will help them understand the flow of the lesson and what comes next.

• **Picture Cues for Directions:** Use pictures or symbols for each direction (e.g., an arrow pointing left, a person walking forward) to visually represent the instructions. This helps students who might struggle with verbal communication or processing spoken instructions.

Sensory Modifications

• For students with sensory sensitivities: Ensure that the environment is calming by keeping noise levels low, using soft lighting, or even offering noise-canceling headphones if necessary. For students sensitive to visual stimuli, avoid bright or flashing lights.

• **For students who are easily overstimulated:** Set up a sensory friendly zone where students can take breaks, such as a quiet corner with soft seating or calming visuals. They can retreat here if they need to self-regulate before rejoining the class.

• **For students who need sensory input:** Provide activities that engage their senses (e.g., using textured cones or objects, gentle tactile items they can touch during breaks).

Social Support and Peer Interaction

• **Peer Buddies:** Pair students who may need extra help with a peer buddy who can model the movements and provide gentle guidance. Peer buddies can help students with autism understand and follow the directions, reinforcing positive social interactions.

• **Encourage Peer Praise:** To foster social skills, encourage students to praise one another after completing a task. For example, when a student successfully follows a direction, peers can say "Nice job!" or clap to reinforce positive social behavior.

Behavioral Support

• **Clear and Consistent Routines:** Some students with autism may struggle with transitions or changes in routine. Make sure to prepare them in advance about any changes to the usual flow of the class, such as using a social story to explain what's coming next.

Some students with autism may have difficulty understanding or processing verbal instructions, especially in fast-paced or complex activities. This can lead to frustration or a lack engagement.

Challenges:

• Struggling to process verbal instructions quickly, particularly when multiple directions are given at once.

• **Modify the Environment:** Adjust the lighting, noise levels, and visual stimuli in the space. If loud noises or bright lights may cause discomfort, offer noise-canceling headphones or provide a calm space where students can go if they feel overwhelmed.

• **Physical Comfort:** Ensure that students are comfortable in their clothing and that the physical activity is appropriate for their motor abilities (e.g., offering softer, safer obstacles for students with motor difficulties).

Use Visual and Physical Cues

Visual supports and physical cues are key for guiding students through the lesson and helping them understand and follow directions.

• **Visual Cues for Direction:** Use large, clear visual aids to show directions (e.g., arrows, pictures of the movement). For example, you could use a picture of a person walking forward to signal the forward movement, or an arrow to show turning left or right.

• **Physical Demonstration:** Physically demonstrate each movement or direction by modeling the actions yourself or using a peer buddy. For example, demonstrate turning left by moving your body in the direction you want students to go.

• **Behavioral Cues:** Use a visual cue system (e.g., a thumbs-up for correct behavior, or a stop sign to indicate when a student needs to slow down or calm down). This helps students understand the expectations and adjust their behavior accordingly.

• **Breaks:** Allow students to take breaks when necessary. Students may become overwhelmed or overstimulated during activities, so offering short, structured breaks can help them manage their energy and emotions.

Pace and Timing Adjustments

• **Flexible Timing:** For students who may need more time to process instructions or complete tasks, extend the time allowed for each part of the activity. For example, if a student needs extra time to reach a cone or perform a directional movement, allow them to do so at their own pace without rushing.

Provide Opportunities for Choice

Giving students a sense of control over their learning can enhance motivation and reduce resistance to participation.

• **Choice in Activities:** Offer options for students to choose from, such as selecting the type of obstacle course or choosing which direction they want to practice first. For example, ask, "Do you want to go forward to the blue cone or turn left to the red cone?"

• **Choice of Role:** Let students take turns in different roles (e.g., being the "leader" for directing others, choosing the direction for the group, or being the first to try a task). This fosters engagement by allowing students to feel more in control.

Positive Reinforcement and Motivation

• **Use of Reinforcers:** Offer immediate and specific reinforcement for each student's success in following directions. **For example:**

Verbal praise: "Great job following the directions!"

Token systems: Reward successful completion of activities with a token that can be exchanged for a prize or special privilege.

Stickers or small rewards: Hand out stickers or stamps after successful participation in each activity.

• **Celebrating Success:** Celebrate each student's unique contributions and progress, regardless of how small. This boosts self-esteem and encourages participation.

Example of Differentiation and Individualized

Support for Specific Students:

Student 1 (Non-verbal, sensory sensitivities)

• **Support:** Use a combination of visual cues (e.g., pictures for left, right, forward) and gestures (e.g., pointing to indicate direction). The environment will be calm, with soft music and minimal distractions. Allow breaks in a quiet zone when necessary.

Student 2 (Strong verbal skills but difficulty with motor coordination)

• **Support:** Provide verbal instructions and encourage them to repeat directions out loud. Simplify the motor tasks (e.g., walking instead of running) and offer physical guidance if needed. Celebrate small successes verbally to boost confidence.

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Supporting Children with Autism through Physical Education

Chapter 6

Sports for Community-Engagement and Community Building for Minimizing Social Exclusion and Increase Social Adaptation

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CHAPTER 6

Sports for community-engagement and community building for minimizing social exclusion and increase social adaptation

Each of us is a contributor to a wider or narrower human community. Modern day-to-day life is characterized by an intense passage of time in which full-fledged communication must be established, involvement in various group and team activities, the ability to be a full-fledged member of society, who is aware of his own and others' emotions, able to control the peculiarities of his nature and focus on performing some common activity, whether it be a physics experiment, an abstract painting or team spirit in a sporting activity.

People with ASD like to communicate, but for most it can be difficult, there is a marked withdrawal when interacting with adults or peers - including loved ones. When meeting acquaintances, they prefer not to say hello and pass by. Communication can be fleeting and irritating. A person with autism spectrum disorder often does not understand the concepts of social interaction, rather than simply ignoring them.

People with ASD have difficulty:

- establishing eye contact – a long look or, on the contrary, unwillingness to look the interlocutor in the eyes. This usually also applies to body language – a person with autism spectrum disorders often cannot interpret gestures or faces accepted in society or in the environment expressions.
- a complete lack of a sense of humor or, more precisely, a lack of understanding of it in the context known to most,
- lack of responsibility, guilt and common understanding of these concepts, stereotypical movements, frequent quoting of phrases from books and films,
- hyper-fixation on a specific activity, hobby or topic,
- orientation in time and the perception of the objective reality happening around,
- sharp dramatic reaction to any changes in life,
- lack of tact, lack of understanding of other people's feelings and emotions.

However, people with ASD are, were and will be full members of society who should be given the opportunity to fit in and function with everyone else. Within the project, there is a work plan for teachers, in which everyone with or without major or minor disabilities is involved.

Sports activities are an essential part of the general development of children and young people. They not only contribute to the physical development of the body, they are closely related to the formation and strengthening of the intellectual and emotional spheres. The ability to regulate one's emotions,

the ability to fully feel, think and behave, adequately reacting to both successes and losses. Sports activities are especially important for people with ASD, because sports activities help them cope with various health symptoms. For example, martial arts relieve stress and provide an outlet for physical energy and emotions. It promotes the development of self-control, discipline, teaches respect for the enemy and competent cooperation with him. To be and feel belonging to the social environment in which it lives.

In the sixth chapter, there are three samples - learning scenarios in which the most important directions are defined, which the teacher should take into account when organizing the already offered or planning their sports event plans. We draw your attention to the exact time allocation, which must be strictly adhered to and which will not contribute to creating unnecessary anxiety for the person with AST. The second point to keep in mind is to consider the strengths and weaknesses of the person with AST. By emphasizing what the child succeeds in, you make him a full member of the team. The third important thing is to always arrange a place where a person with AST can regain calmness, reduce stress or prevent a panic attack.

6.1. Lesson Plan: Interactive Explorers: Games for Social Fun

<table>
<tr><th colspan="2">Learning Scenario Implementation Plan – 1</th></tr>
<tr><th colspan="2">"Interactive Explorers: Games for Social Fun"</th></tr>
<tr><td>Target Groups</td><td>Primary: Children aged 8 –10 on the autism spectrum
Secondary: Teachers, facilitators, neurotypical children the same age.</td></tr>
<tr><td>Learning Objectives</td><td>The activities help children develop essential skills, including observation and recognition by identifying objects and cues, teamwork through collaboration and turn-taking, and self-regulation by following instructions and managing impulses. Motor skills, coordination, and balance improve through physical movements. Focus and listening are enhanced through auditory tasks, while creativity and self-expression are encouraged through movement. Finally, children build environmental awareness and respect for nature.</td></tr>
<tr><th colspan="2">Learning Scenario</th></tr>
<tr><th colspan="2">Activity 1 (30 minutes): Scavenger Hunt with Visual Cues</th></tr>
<tr><th colspan="2">Introduction</th></tr>
<tr><td colspan="2">1. Hide objects (e.g., leaves, rocks) in varied locations like bushes, branches, or grass. Indoors, place them around the room or in cabinets.
2. Use items of different sizes, shapes, and colors for visual stimulation.
3. Create visual cards or a checklist with images of the items for children to find, optionally laminating them for durability.
4. Divide children into pairs or groups, assigning roles like finding specific items or searching different areas.
5. Provide each pair with a container to collect their finds and set up a "check-in" station to track progress. This setup encourages teamwork and keeps the hunt organized and engaging.</td></tr>
<tr><td>Materials</td><td>Resources:
1. Natural objects: these could include leaves, flowers, rocks, sticks, pinecones, feathers, painted stones, acorns, or any other items found in nature. Alternatively, you could use small toys or objects from around the house.</td></tr>
</table>

	2. Visual cards or checklists: prepare cards or a checklist with pictures of the items that children need to find. These could be simple, colourful drawings or actual photographs of the objects. You can laminate them for durability if doing this activity outdoors. **3. A designated search area:** this could be an outdoor space like a garden, park, or playground, or an indoor space with different stations or corners for hiding items. **4. Containers or bags:** to collect the found items (e.g., small baskets, paper bags, or tote bags). **5. Optional props:** magnifying glasses, tongs, or small pails for an added sensory or exploratory element.
Action	**Action:** 1. Gather the children together and explain the rules of the scavenger hunt. You can say something like: "Today, we're going on a scavenger hunt! You're going to search for special things like leaves, rocks, or painted stones. You will use your cards to help you find them." "Work with your partner to find as many items as you can, and remember to check off each item on your list as you find it!" "Once you find something, put it in your bag or basket and keep looking for the next item!" 2. Once the children understand the task, set them off to begin. They can start searching, referencing their visual cards, and working together with their partner to find the items. As they search, you can guide them if needed (e.g., "Have you checked under that bush?" or "Maybe the yellow leaf is near the tree!").

Teaching Strategy	
Small group sizes: Keep groups small (3–4 children) to ensure that each child gets adequate attention and support, minimizing sensory overload and making it easier to manage group dynamics. **Clear transitions:** Use visual and auditory cues (e.g., timers, bells, or clapping) to signal transitions between activities. Allow extra time for children who may need it, especially those on the autism spectrum who might find sudden transitions overwhelming. **Safe spaces for self-regulation:** Create a quiet, sensory-friendly space where children can take breaks when feeling overstimulated. Equip this area with calming items like noise-canceling headphones, soft seating, or sensory toys. **Predictable environment:** Maintain a calm and structured environment by setting clear rules and routines.	Visual schedules or a schedule board can help children feel more secure and prepared for each transition. **Engagement techniques:** **Positive reinforcement:** Use familiar rewards such as stickers, tokens, or verbal praise to encourage participation, turn-taking, and effort. This supports motivation and reinforces positive behavior. **Visual storytelling:** Introduce each game with a simple story or visual aids that connect the activity to real-world concepts or cultural meanings. This can make the activities more relatable and engaging. **Interest-based choices:** Offer children some choice in activities, such as picking from two similar games. This can increase engagement by giving them a sense of autonomy and control.

General Adjustments	
Use sensory-friendly items, such as soft fabric swatches or textured objects, to make the hunt even more engaging. For older children, introduce a timed element, where they try to find as many objects as possible within a set timeframe. This can build excitement and challenge them to work efficiently while still focusing on the hunt. Encourage kids to create something with what they've found, like a nature collage using leaves, twigs, and flowers, or to arrange their	Instead of visual cards, use simple riddles or rhymes as clues (e.g., "I'm small, smooth, and round, and often found on the ground" for a stone). This can encourage cognitive skills and problem-solving. Give children a simple map or visual markers to guide them to different locations where the objects are hidden. This could introduce them to basic navigation skills and encourage spatial awareness. Assign each group a unique list or set of visual cues that differ slightly, and have them work together to find everything.

items in the shape of an animal or a simple object. This adds a creative aspect to the hunt and provides a memento of their activity. When children find all the items, they receive pieces of a larger item or reward, such as a small treasure box with items or a certificate. Alternatively, finding all items could unlock a new activity, like snack time or story time.	Add scented items or essential oils on cards so kids can find objects based on smell (like lavender on a fabric swatch or mint on a leaf). Have some objects make noise, such as crinkling leaves, small bells, or even a mini wind chime. Kids can be encouraged to find objects by listening to specific sounds. Use objects with different temperatures (for instance, a warm stone from the sun or a cool rock from the shade) to add an extra layer of sensory exploration.
Assessment Strategy	
Participation: Engages in the activity and follows instructions (independently or with support). Collaboration: Works with a partner or interacts appropriately (using scripts, AAC, or gestures). **Item identification:** Successfully identifies and collects items from the list. **Task completion:** Completes the scavenger hunt (fully or partially, based on ability). **Engagement:** Demonstrates interest and focus during the activity. **Adaptation use:** Effectively uses provided tools or supports (visual cards, timers, etc.). **Behavioral regulation:** Maintains appropriate behavior and manages transitions.	**Feedback approach:** **Positive reinforcement:** Praise achievements "Great job finding the yellow leaf!" or "Well done checking your list!" **Encouraging collaboration:** highlight teamwork: "You're working so well together!" or "Nice job helping each other!" **Guidance and support:** offer prompts: "Check under the bush for the rock!" or "Did you spot the painted stone?" **Encourage reflection:** ask questions: "What was your favorite find?" or "What excited you today?" **Celebrate achievements:** acknowledge efforts: "Look at all the items you found—great teamwork!"
Activity 2 (20 minutes): Dance and Freeze	
Introduction / Setup: **1. Choose a safe area:** Select a spacious, obstacle-free indoor or outdoor area. Ensure the ground is safe, accessible, and marked with visual boundaries (e.g., tape or cones). **2. Music setup:** Position the music player where sound is clear but not overwhelming. Use child-friendly, rhythmic music and prepare a playlist in advance with backup options. **3. Explain rules clearly:** "Dance freely when the music plays." "Freeze in place when it stops." "Demonstrate freezing poses and encourage creativity (e.g., silly or playful poses)."	
Action	**1. Start the music:** Play music and encourage children to dance freely. Demonstrate moves if needed or suggest fun movements like twirling or jumping. **2. Stop the music (freeze):** Pause the music at random intervals. Children must freeze in a pose. Make it playful by suggesting poses like "tree" or "superhero." Offer reminders or praise as needed. **3. Restart the music:** Resume music and repeat the process several times to maintain engagement. Adjust the pace if children become tired or restless. **4. End the game:** Finish with one final freeze and celebrate everyone's participation with positive reinforcement.
Materials	Music player (a Bluetooth speaker, radio, or a phone/tablet with speakers); Playlist of upbeat music (ensure the songs are child-appropriate and engaging); Open space where children can move around safely (classroom, gym, living room, or outdoor area); Optional: scarves, ribbons, or soft props for added sensory experience (if desired)
Differentiation	
1. Use scarves or ribbons to dance with, adding sensory experience. **2.** Assign each round a different animal theme (e.g., "Dance like a lion," "Fly like a bird"). When the music stops, they freeze in a pose related to the animal, which adds an imaginative element.	

3. Each round, ask the children to dance with a specific emotion, like “happy,” “excited,” “tired,” or “silly.” When the music stops, they freeze in a pose that expresses that emotion. This encourages emotional expression and awareness.
4. Pair children up, and when the music stops, one child strikes a pose while the other mirrors it. This helps with focus, observation, and coordination.
5. Instruct everyone to freeze in the same type of pose when the music stops (e.g., “everyone freezes with your arms up”). This adds a fun layer of following visual cues and encourages group cohesion. 6. When the music stops, call out a type of statue, like “superhero,” “tree,” or “robot.” Each child freezes in a pose that fits the statue. This adds creativity and keeps each round fresh.
7. Give each child a hula hoop to use as a “dance zone” they must stay inside. When the music stops, they freeze inside or strike a pose with the hoop. This adds spatial awareness.
8. When the music stops, challenge everyone to freeze on one leg, with arms out, or balance unusually. This encourages focus and improves balance skills.
9. Change up the music tempo during the game. Play fast music and then switch to slow music in each round, so kids can dance fast or slow. This allows them to practice adjusting their energy levels and movements.
For children who are sensitive to music or simply don’t enjoy it, here are some alternative ideas to keep the "Dance and Freeze" game engaging without relying on music:
1. Use nature sounds, animal noises, or interesting sound effects (like rain, waves, or a heartbeat). Children can move freely to these sounds, and when the sound stops, they freeze. This adds variety and a calming element for children who might find music overstimulating.
2. Instead of music, use a drum, tambourine, or clapping. The children can move when they hear the beats and freeze when the sound stops. Changing the speed of the beat can add a fun challenge.
3. Create a simple story where children act out different parts. For example, “Now we’re all animals in the jungle. Let’s move like monkeys!” Then pause the story so they freeze in place. The story can continue in segments, with children “freezing” as the story pauses. This creates a playful, narrative-based approach.
4. Use a flashlight or another light source in a dim room. Children move freely while the light is off, but when the light turns on, they freeze. This works well for children who prefer visual cues and can add a bit of excitement.
5. Hold up colour cards or flags to cue when to move and freeze. For example, green means “move” and red means “freeze.” You can change the colours slowly or quickly for added challenges. This option can feel more like a game and less like a dance.

Teaching Tips

1. Clear instructions: Before starting, explain the rules clearly: “When the music plays, dance however you like. When it stops, freeze in place!” Use simple language and gestures to support understanding.
2. Demonstrate moves: Show a few dance moves (e.g., twirling, jumping) to give children ideas. Encourage creativity: “You can dance however you feel!”
3. Positive reinforcement: Offer praise for effort and engagement: “Great job freezing like a tree!” or “I love how you’re dancing!”
4. Encourage playfulness: Suggest fun poses for freezing (e.g., “Freeze like a superhero!” or “Freeze as a silly statue!”). This keeps it lighthearted and enjoyable.
5. Adapt to energy levels: If children get tired, slow the pace or allow a brief “dance break” to keep energy levels up.
7. Visual timer or countdown: Use a visual timer or countdown to build anticipation and help children understand the flow of the activity, especially during the music pauses.
8. Sensory breaks: provide options for sensory breaks if children start to lose focus or get overwhelmed. This could include a quiet area or a moment of stillness between rounds.

Adaptation tips:

1. Modify dance movements: For children with limited mobility, suggest simpler movements like swaying, clapping, or tapping feet instead of more complex actions like jumping or spinning.
2. Use visual cues: Provide visual cards or pictures for dance moves and freeze poses. This can help children who may struggle with verbal instructions.
3. Slow down or adjust music tempo: Play slower music for children who may need more time to process cues.

6. Reinforce listening skills: Emphasize the importance of listening for when the music stops. "Can you freeze as soon as the music pauses?" **7. Celebrate participation:** End with a final freeze and celebrate all children: "You all did an amazing job today! Let's all take a bow!" **Engagement techniques:** **1. Visual and auditory cues:** Use visual prompts (e.g., hand signals, colored cards) to support understanding of when to freeze or dance. Keep the volume and pace of music varied to maintain attention and excitement. **2. Modeling and demonstration:** Lead by example, demonstrating fun and exaggerated dance moves. Encourage children to mimic or adapt these moves, fostering creativity. **3. Interactive poses and themes:** Introduce themed freezing poses (e.g., "Freeze like a dinosaur!" or "Freeze like a rocket ship!") to keep the activity playful and imaginative. **4. Turn-taking:** Allow children to take turns choosing music or calling out freeze poses. This promotes leadership and gives them a sense of control in the activity. **5. Positive reinforcement:** Offer praise for participation, creativity, or effort. Use specific feedback like, "Great job holding that superhero pose!" to acknowledge engagement. **6. Incorporate interests:** If you know certain children have specific interests (e.g., animals, superheroes), suggest movements or poses related to those topics to increase engagement.	Gradually increase the pace as they become more comfortable. **4. Use sensory-friendly options:** For children who may be sensitive to loud sounds, use quieter music or provide noise-canceling headphones. Offer sensory-friendly items like fidget toys during breaks. **5. Offer physical support:** For children who may need assistance with movement, provide a hand to hold or gently guide them through actions like jumping or twirling. **6. Frequent pauses and breaks:** Five children who may become overwhelmed more frequent pauses between music and dance to allow for rest, and ensure they feel comfortable. **7. Use smaller groups or one-on-one support:** Pair children who need extra support with a partner or adult to ensure they stay engaged and feel comfortable during the activity. **8. Simplify freeze poses:** For children who may struggle to freeze, offer simpler poses (e.g., standing still with arms by their side) or allow them to freeze in a position that feels comfortable. **9. Visual or physical markers for boundaries:** Use tape or cones to mark the dance area clearly, ensuring children understand where to stay within the boundaries during the activity. **10. Adjust the length of the activity:** Shorten the duration for children who may have difficulty maintaining focus or stamina. Break the activity into shorter intervals with breaks in between.
Assessment Strategy	
Assessment criteria: **1. Engagement level:** Assess how actively each child participates, including dancing, freezing on cue, and showing enthusiasm during the activity. Observe how well children stay engaged throughout the game and their responses to music changes. **2. Social interaction:** Evaluate the child's ability to interact with peers, such as sharing space, taking turns, and collaborating during partner activities (e.g., cheering each other on, helping each other freeze). **3. Following instructions:** Measure how well children follow verbal and visual cues, including dancing when the music plays and freezing when the music stops. Observe their ability to understand and respond to instructions like "freeze like a tree" or "twirl like a ballerina." **4. Self-regulation:** Observe the child's ability to manage impulses (e.g., stopping and freezing when the music halts). Assess their ability to use self-regulation tools, like taking a break if needed, or staying calm during more extended pauses. **5. Motor skills:** Evaluate the child's physical abilities, such as their coordination in dancing (e.g., jumping, spinning) and the ability to hold a freeze pose without moving. Observe balance, control, and body awareness during movement and stillness. **6. Emotional expression and self-awareness:** Assess how well children express themselves through movement, facial expressions, or vocalizations during the dance and freeze activities. Observe their comfort level with different poses and how they react to freezing.	

7. Adaptability: Measure how children adjust to changes in music tempo or pauses. Evaluate how they handle unpredictability and adapt to the flow of the game.
8. Creativity and imagination: Observe how children incorporate creativity into their dancing and freezing. Are they making up new poses or moves? Do they express themselves in unique ways?
Feedback approach:
1. Character boost: Create a character for each child based on their dance style: "You're the Dancing Tiger, jumping high with all your energy!" or "You're the Freezing Wizard — you can hold a pose like magic!"
2. Superhero praise: When a child freezes or dances creatively, give them a superhero-style compliment: "Wow! You froze like a superhero in action!" or "You were dancing like a rock star out there!"

Activity 3 (30 minutes): Nature Bingo

Introduction

Introduction / Setup:
1. Choose an area: Select a safe outdoor space, like a park or garden, with diverse natural elements for the bingo game. Ensure the area is hazard-free and mark boundaries for exploration.
2. Prepare bingo cards: Create 5x5 bingo cards featuring nature items like flowers, rocks, clouds, or insects. Tailor cards to the environment—include squirrels in city parks or pinecones in rural areas.
3. Explain rules and boundaries: Tell children to find and mark items on their bingo cards when spotted. "Get a row, column, or diagonal for bingo!" Set a 15-minute time limit and encourage observing rather than disturbing nature.
Action:
1. Hand each child (or team, if you're pairing them up) a bingo card, a pencil or marker, and a clipboard or flat surface for writing. Show them examples of what they're looking for so they feel prepared.
2. Encourage them to explore the area safely, staying within boundaries and being mindful of the natural environment. Remind them that they can work together and help each other find items if they like.
3. The children begin searching for items listed on their bingo card. Each time they find one, they mark it off. You can encourage them to look carefully at their surroundings and listen closely to any natural sounds they might hear (for example, birds singing).
4. Guide children to look closely at the details of the items they find. For instance, they might look at the colour of a flower, count the number of petals, or describe the shape of a rock.
5. If using magnifying glasses, encourage children to examine bugs, leaves, or bark up close. This can spark curiosity and engagement, especially if they notice new details.
6. Reinforce the concept of respecting nature by reminding children to observe without disrupting natural habitats. They might look at a flower closely without picking it or observe a bug without touching it.

Materials	**1. Bingo cards:** Pre-made or custom-designed cards with 5x5 grids featuring nature-related items (pictures or words). **2. Markers/Pens:** For children to mark off items they find on their cards. **3. Clipboards or card holders:** To make it easier for children to carry and write on their bingo cards while exploring. **4. Nature collection bags (Optional):** Small reusable bags for collecting safe items like rocks or leaves if permitted. **5. Boundary markers:** Cones, flags, or ribbons to clearly define the play area. **6. Sensory tools (optional):** Magnifying glasses or binoculars for exploring smaller details or distant objects.

Differentiation

1. Offer tactile markers like stickers or stamps that kids can place on their bingo cards.
2. Team bingo: Pair children up or form small groups and give each team a bingo card. Working in teams encourages collaboration and social interaction, as children need to communicate and work together to find all the items. It's also helpful for younger children who might need assistance in identifying items.
3. Colour bingo: Make the activity simpler by creating bingo cards with colours instead of specific items (e.g., green, brown, yellow, blue, white). Children then find objects in nature that match each colour, such as a green leaf, brown tree bark, yellow flower, or blue sky. This is especially helpful for younger children who are learning colours.

4. Sensory bingo: Incorporate sensory elements into the bingo card. For example, you might include items like "something soft," "something rough," "something that smells," or "something cold." Children then find natural items that fit these descriptions, which enhances sensory exploration.
5. Photo bingo: For older children or if you're in a location where collecting items isn't allowed, try using digital cameras or smartphones (with supervision) to take photos of each item instead of marking off a card. They can look for each item on their list, take a picture, and show their photo collection at the end.
6. Seasonal nature bingo: Customize the bingo cards based on the season. For example: ○ Spring: blossoms, insects, fresh leaves, rain puddles, budding trees
Summer: Butterflies, sunshine, green grass, wildflowers, birds
Autumn: Fallen leaves, acorns, pinecones, orange colours, bare branches
Winter: Snow (if applicable), evergreen trees, animal tracks, clouds, frost

Teaching Tips

1. Visual demonstration: Show an example card and explain how to mark off items to ensure clarity.
2. Set clear boundaries: Point out the play area and explain safety rules before starting.
3. Encourage observation: Remind children they don't need to touch or pick up everything—observing is enough.
4. Pair for support: Pair children to encourage teamwork and help each other identify items.
5. Praise effort: Acknowledge participation, even if a child doesn't complete a bingo.
6. Adapt for ability: Use simpler cards with pictures for younger or less advanced learners.
7. Stay engaged: Walk around to offer hints and encouragement while monitoring the group.
8. Wrap-up: End with a group discussion to share what they found and learned.
Engagement techniques:
1. Excited start: Use an enthusiastic tone when introducing the game to spark interest.
2. Creative challenges: Add mini-goals like "Who can find the smallest leaf?" or "Spot something yellow!"
3. Interactive questions: Ask, "What else might we find near this tree?" to keep curiosity alive.
4. Discovery moments: Highlight cool finds to keep everyone motivated, like "Wow, look at this unique rock!"
5. Time updates: Announce countdowns to keep energy levels high: "5 minutes left — let's find more!"
Adaptation tips:
1. Visual instructions: Use clear visuals or step-by-step cards to explain the activity.
2. Smaller groups: Conduct the game in smaller groups to reduce sensory overload.
3. Sensory tools: Provide headphones for noise sensitivity or gloves for tactile sensitivity.
4. Predictable structure: Clearly outline the steps and duration of the game beforehand.
5. Quiet zones: Create a calm space nearby for breaks if a child becomes overwhelmed.
6. Partner support: Pair children with understanding peers or adults to guide and encourage them.
7. Simplified cards: Use fewer items or more familiar pictures for easier engagement.
8. Pre-visit preparation: Show photos or maps of the area in advance to reduce anxiety about the setting.

Assessment Strategy

1. Completion: Track how many items each child finds or marks on their bingo card.
2. Observation skills: Note how well children identify and describe the items they find.
3. Social interaction: Observe teamwork, turn-taking, and communication during the activity.
4. Focus and engagement: Assess how attentive children are to the task and whether they stay involved.
5. Adaptability: Look for how children handle changes, such as missing items or trying new approaches.
6. Motor skills: Monitor how they move around, pick up items, or use tools (e.g., binoculars).
7. Self-regulation: Check if children use breaks or sensory tools effectively when overwhelmed.
8. Reflection: Ask children what they enjoyed or found challenging to gauge self-awareness and feedback.
Feedback approach:
1. Nature medal ceremony: Celebrate participation by handing out "Nature Explorer" medals or certificates with fun titles like "Rock Finder Extraordinaire."
2. Emotion reflection: Use an "Emotion Thermometer" or stickers to let children show how they felt during the activity (happy, excited, calm).

3. Photo highlights: If possible, take pictures of key moments (with consent) and create a mini "Nature Adventure Album" to review together.
4. Visual feedback wall: Use a large poster for children to place stickers on items they enjoyed most, showing collective feedback visually.

Activity 4 (20 minutes) Simon Says With Visuals

Introduction / Setup:
1. Choose a spacious, open area, either indoors or outdoors, where children can move freely. Remove any obstacles or items that could get in the way of movement.
2. Mark boundaries with cones or markers if necessary so children understand the limits of the play area. This helps keep everyone within sight and makes the game safer.
3. Gather the children and explain the rules in simple terms: "When I say 'Simon says' and show you a card, you do what the card shows. But if I don't say 'Simon says' first, don't do the action! Only do the action when you hear 'Simon says' and see the card." Show a few example cards to demonstrate what each action looks like and to help them understand the connection between the command and the visual.
4. Demonstrate how visual cues work: to help children get familiar with the visual cards, hold up a card with an action (e.g., hopping on one foot) and say "Simon says…" so they understand they're supposed to perform that action. Then, try one without saying "Simon says" as a way to illustrate that they shouldn't follow the action unless "Simon says" is called. A few rounds of practice will help clarify the rules.

Action	**1. Start the game:** Begin by calling out "Simon says…" followed by an action, holding up the matching visual card for everyone to see. This makes it easier for children to understand and follow the instructions by seeing as well as hearing what they need to do. **2.** Give them a few seconds to act, then move on to the next command. **3. Introduce visuals gradually:** Start with simple actions, especially if children are new to the game, and gradually introduce more complex movements as they become comfortable with the visual cues. You can mix in varied movements like: ■ **"Simon says… clap your hands" (show a clapping hands card)** ■ **"Simon says… spin in a circle" (show a spinning figure card)** ■ **"Simon says… jump up and down" (show a jumping figure card)** ■ **"Simon says… touch your nose" (show a face with a finger touching its nose)**
Materials	**1. Visual cue cards:** Laminated cards with clear images of actions (e.g., clapping, spinning, jumping) to match each command. **2. Portable whiteboard/clipboard:** For holding and displaying the visual cards during the game. **3. Space for movement:** A safe, open area (indoors or outdoors) free of obstacles. **4. Soft floor mats:** Optional, for added safety during active movements like jumping or spinning. **5. Cue stick or pointer:** To direct attention to the visual cards if the group is larger. **6. Pre-made action list:** A written or printed list of commands to help plan the sequence of actions. **7. Music player (optional):** Gentle background music to enhance the playful atmosphere. 8. Rewards or stickers: small tokens to celebrate participation and engagement. **9. Adaptation tools:** Sensory-friendly items (like noise-canceling headphones) for children who may need extra support.

Differentiation

1. Simplify the actions, focusing on just one or two motions, to keep it from becoming overwhelming.
2. Team Simon says: Divide children into pairs or small groups. One child in each group can be "Simon" and hold the visual cards to lead the group through the actions. This encourages leadership, and children can take turns being the leader.
3. Movement sequence Simon says: For a more challenging twist, show multiple visual cards in a sequence. For example, "Simon says… jump, spin, and touch your toes" while holding up each corresponding card one after the other. This variation tests memory and adds an extra layer of concentration.

4. Simon says with animal actions: Make the actions more imaginative by incorporating animals! Use visual cards that show animals doing certain movements, like a frog hopping, a cat stretching, or a bird flapping. Children can pretend to be the animals while performing the actions, adding creativity and fun.
5. Simon says for calming: For a quieter version, use slow, calming movements to wind down the game. Actions like "Simon says… take a deep breath," "Simon says… stretch your arms," or "Simon says… sit criss-cross" can help children settle down. This is ideal for closing the game or transitioning to a quieter activity.
6. Color-coded Simon says: Use color-coded cards with different actions assigned to each color. For instance, all red cards might be jumping activities, while blue cards are arm movements. Children can look for both the command and the color to determine what action to perform.
7. Quiet zone: Set up a nearby sensory-friendly area with noise-cancelling headphones, soft seating, and sensory toys where participants can take breaks if needed.

Teaching tips

1. Start simple: Begin with easy actions to build confidence before introducing more complex ones.
2. Demonstrate actions: Act out each command alongside showing the visual cue to reinforce understanding.
3. Use clear cues: Speak slowly and clearly, emphasizing "Simon says" to help children distinguish commands.
4. Engage visually: Hold visual cards at eye level to ensure all children can see them.
5. Positive reinforcement: Praise children for trying, even if they don't follow the command exactly.
6. Encourage creativity: Allow children to suggest or demonstrate new movements for "Simon."
7. Adjust pace: Slow down or repeat actions as needed for children who may need more time to process.
8. Group focus: Use a group countdown (e.g., "3, 2, 1") before switching commands to maintain attention.

Engagement techniques:
1. Use sound effects: Add fun sounds (like clapping or animal noises) when performing actions to keep children engaged.
2. Incorporate music: Add fun tunes when the actions are being performed to keep the energy high. 3. Add props: use props like scarves, hats, or balls that children can interact with during commands.
Adaptation tips:
1. Simplify commands: Start with basic actions and gradually increase difficulty as children get comfortable (e.g., clapping, touching their nose).
2. Offer physical guidance: Gently guide children through the motions if needed, or model the actions.
3. Support with pairs: Pair children together so they can support each other and model actions if needed.

Assessment Strategy

1. Following commands: Correctly responding to commands with "Simon says."
2. Attention and focus: Staying engaged and listening carefully to cues.
3. Motor skills: Demonstrating coordination in physical movements.
4. Social interaction: Engaging with peers and taking turns as "Simon."
5. Self-regulation: Freezing and stopping when needed, showing impulse control.
6. Creativity: Suggesting or initiating new actions during the game.
7. Participation and enjoyment: Displaying enthusiasm and enjoyment throughout the activity.
Reflection (10 minutes):
Emotion spectrum wall: Set up a large poster or board with a range of emotions represented by faces (e.g., from ecstatic to frustrated) and ask participants to place a sticker or draw a mark near the emotion that best represents their experience for each activity. How it helps: This visual "emotion map" gives facilitators insight into the group's emotional highs and lows during the day.
Game highlights timeline: Draw a timeline on a board and label each activity or game that was done throughout the day. Ask participants to place sticky notes along the timeline, noting their favourite parts or memorable moments for each activity. How it helps: Reviewing this timeline as a group sparks positive memories and helps participants see the day's flow in a structured way.
Mood thermometer: Create a "thermometer" with colours representing different moods (e.g., red for excitement, yellow for contentment, and blue for tiredness). Each participant marks where they are on the thermometer after each activity. How it helps: This simple, colourful visual can help both participants and facilitators gauge energy levels and engagement.

Game emoji ratings: Provide cards with various emojis (e.g., laughing, puzzled, thumbs-up, sleepy) and ask each participant to select an emoji that represents how they felt about each game. Facilitators can quickly scan the emoji selections to get a read on the group's reactions. How it helps: This approach lets participants communicate how they felt in a lighthearted, relatable way. **Memory snapshot gallery:** Ask each participant to draw or write a "snapshot" of their favourite moment from the day on a sticky note or card, then display these as a gallery on a board or wall. How it helps: It encourages personal reflection and allows participants to see what resonated most with their peers.
Learning Outcomes
Learning Outcomes: **Social awareness:** Improved understanding of social cues, group instructions, and turn-taking. **Emotional and sensory recognition:** Awareness of emotions and sensory preferences through reflection activities. **Nature literacy:** basic knowledge of plants, animals, textures, shapes, and colors through outdoor activities. **Demonstrated skills:** **Social interaction and teamwork:** Improved turn-taking, task-sharing, and cooperation in paired activities. **Self-regulation and impulse control:** Better impulse control and smooth transitions through activities like "Dance and Freeze." **Focus and attention:** Increased focus and ability to follow multi-step instructions, responding well to prompts. **Motor skills and sensory processing:** Enhanced gross and fine motor skills, with improved sensory processing during movement activities. **Qualitative feedback indicators:** **Enjoyment:** Measured through smiles, laughter, and verbal feedback, indicating comfort and positive responses. **Willingness to participate:** Openness to new tasks and activities reflects increased confidence and adaptability. **Self-awareness:** Using tools like the "Mood Thermometer" shows growth in emotional awareness and vocabulary. **Peer support and interaction:** Helping and encouraging peers during activities highlights positive social behaviors and collaboration. **Behavioral indicators of learning and engagement:** **Following instructions:** Consistent response to visual and auditory cues shows improved receptive language and focus.

6.2. Lesson Plan: "Fun, Focus, and Friendship!"

Learning Scenario and Implementation Plan-2	
"Fun, Focus, and Friendship!"	
Target Groups	Primary: Children aged 5 - 7 on the autism spectrum Secondary: Teachers, facilitators, and community - neurotypical children the same age.
Learning Objectives	By the end of the event, participants will have: ● Social skills: foster teamwork, communication, and collaboration. ● Cognitive skills: enhance decision-making, focus, and rule comprehension. ● Physical skills: improve motor skills, spatial awareness, and agility. ● Emotional regulation: build resilience, self-confidence, and adaptability. ● Inclusivity: encourage empathy and participation for all abilities
Competencies	
Participants will develop a wide range of competencies, including cooperation, communication, and emotional regulation. They will enhance social skills like turn-taking, making acquaintances, and naming participants and objects. Physical fitness and motor skills, such as hand-eye coordination, balance, and throwing accuracy, will improve through targeted activities. Participants will also build teamwork, self-regulation, and problem-solving abilities while working in pairs or groups.	

<table>
<tr><td colspan="2">Key skills include:
● Social and emotional competence: Collaboration, teamwork, and confidence building.
● Physical competence: gross and fine motor skills, endurance, and balance.
● Cognitive competence: Decision-making, strategic planning, and goal-setting.
● Emotional regulation: Managing sensory overload, frustration, and maintaining focus.
● Communication: Clear verbal and non-verbal interaction.</td></tr>
<tr><td>Introduction</td><td>Activity 1 (30 min): “Tuk Tuk Tree Tag”
Introduction:
1. Instructions for participants - revise the rules together, visualizing them. The following questions can be asked: “What game we will play?” “What will be done (sequence)?” “What should the leader do?” “What should participants do?” “Who wins the activity/ when does it end?”
2. The teacher can offer the participants to sequentially assemble the action steps of the activity using cards, visual reminders.</td></tr>
<tr><td>Action</td><td>1. Participants choose a leader. The leader stands by the tree, with eyes closed (preferably with hands) and counts to 10. Then the leader says: "I'm going to search you."
2. Meanwhile the other participants have to find a place and hide.
3. While the leader searches, participants try to get to the tree unnoticed. If a participant succeeds, he / she says: "Tuk!Tuk!" and says his/her name.
4. If the leader notices or finds someone, he (the leader) runs to the tree, and says: “Tuk! Tuk!” and names the participant who was found.
5. Those who cannot be found by the leader win.</td></tr>
<tr><td>Materials</td><td>1. Visual reminders (cards, symbols)
2. Cones (for limiting the environment where the activity will take place)
3. Sound-cancelling headphones (for those who need them)
4. A place of 'solitude' or 'silence'</td></tr>
<tr><td colspan="2">Differentiation</td></tr>
<tr><td colspan="2">For participants who have difficulty understanding verbal instructions, provide a visualization of the instructions. If necessary, the participants have an assistant who helps them navigate in the area. For participants who don't like to touch rough surfaces, offer to wear thimbles or give them an object with which they can touch the wood (handkerchief, rubber ball, etc.)</td></tr>
<tr><td>Teaching Tips</td><td>The activity can be organized by dividing the participants into pairs (adult and child). 2. You can vary the count by using items to count
Engagement techniques:
1. Introduce the participants to the surrounding environment, explore it together
2. Discuss the flow of the activity through visualization
Adaptation tips: The activity can be organized not only outdoors but also in the classroom. Mark an object, such as a door or cabinet, where the activity leader will stand. Encourage the leader to count objects while standing with their back to the other participants if this makes them feel safer or more comfortable. If the leader prefers not to cover their eyes with their hands, they can simply close their eyes. If the leader doesn’t know everyone’s names, prepare photos of the participants (placing found participants' photos in a designated spot).</td></tr>
<tr><td colspan="2">Assessment Strategy</td></tr>
<tr><td colspan="2">● Engagement: Level of active involvement or reluctance in the activity
● Understanding of rules: Comprehension and following of activity instructions
● Emotional well-being: Overall mood and comfort during the activity
● Rule compliance: Adherence to established rules and guidelines</td></tr>
</table>

<table>
<tr><td colspan="2">Feedback approach: Provide participants with immediate feedback (such as praise or rewards) and offer constructive comments as needed. If a participant appears anxious, gently suggest adjustments or alternatives to improve. Remind them that they can spend time in a “quiet” or “solitude” space if they need a break.</td></tr>
<tr><td colspan="2">Activity 2 (30 minutes): “Catch the Leader!”</td></tr>
<tr><td>Action</td><td>1. The participants are standing in a circle. In the center of the circle is the activity leader.
2. The activity leader has a ball in his/her hands. The leader throws the ball into the air and calls out the name of a participant.
3. The named participant becomes the new leader.
4. The new leader tries to catch the ball. The other participants run in different directions.
5. When the new leader catches the ball, he / she says: “STOP!” Everyone must stop.
6. The new leader calls out the name of a participant and tells how many steps (big or small) it takes to reach the called participant. For example, “Peter, I need three big steps to reach you.”
7. Then, the leader walks to the named participant and throws the ball. The participant must try to catch the ball.
8. Once the ball is caught, the new leader calls out the name of a participant, throws the ball into the air, and the previously described actions are repeated.</td></tr>
<tr><td>Materials</td><td>1. Participants' names on pin-on cards
2. Visual reminders
3. Colorful ribbons, flags to mark the activity area
4."Loneliness/Silence Island" or a tent, where a participant can go alone if needed in case of sensory overload.</td></tr>
<tr><td>Teaching Strategy</td><td>1. Instructions for participants – verbal, visual – repetition.
2. The activity leader asks each participant to say the names of the other participants.
3. The sequence of the activity can be visualized – PECS, pictograms, which will help remember the order of the activity.
4. The activity can be demonstrated by adults (role-played).</td></tr>
<tr><td colspan="2">Teaching Tips</td></tr>
<tr><td>The activity can be organized in pairs (assistant and child)
Engagement techniques:
1. Introduce the participants to the environment where the activity will take place
2. Update how far you can move and what the colored ribbons and flags indicate
3. Introduce the place where the participants of the activity can be alone, calm down if necessary 4. Repeat the course of the activity, the rules, if necessary, act out (adults), visualize
Adaptation tips:
1. The activity can be organized not only outdoors, but also indoors - in the gym.</td><td>2. Mark the place where the activity will start
3. Arrange a place of "silence/solitude" (tent, cabin)
4. Use colorful shirts or pins with participants' names if you have trouble remembering them
Feedback approach:
1. If necessary, explain the rules of the activity, give the instructions several times until you are sure of their understanding
2. Suggest using a "quiet space" if you notice a member being overwhelmed
3. Offer help if needed
4. Encourage them to ask questions if they don't understand something
5. Support, be patient in providing feedback</td></tr>
<tr><td colspan="2">Differentiation</td></tr>
<tr><td colspan="2">Participants who have difficulty understanding verbal instructions are offered visual instructions (pictures, text in easy language if the participant reads). The assistant (if necessary) helps to perform the activities (catch the ball, name the player, ask the participant for the number of steps, etc.) If the participants of the activity have difficulty memorizing the words, you can use colored shirts, then accordingly, the color of the new name will be.</td></tr>
<tr><td colspan="2">Activity 3 (20 minutes): "Target Toss Challenge!"</td></tr>
<tr><td colspan="2">Introduction</td></tr>
</table>

<table>
<tr><td colspan="2">Introduction / Setting up: The activity takes place outdoors. A target is needed, as well as objects suitable for gripping (soft balls, sacks filled with soft materials, etc.). The target is marked according to the participants' height. A designated spot is marked from where the throws will be made.</td></tr>
<tr><td>Action</td><td>1. Participants line up one behind the other and take turns throwing the given object.
2. The winner is the one who hits the target the most times.</td></tr>
<tr><td>Materials</td><td>1. Targets: Use readily available items like hula hoops, buckets, or chalk to create targets. Reuse materials from other activities to minimize waste and cost. Adjust target size and height to cater to different skill levels and ages.
2. Throwing Objects: Use soft, safe objects like beanbags, foam balls, or rolled-up socks. If on a tight budget, make DIY throwing objects using old fabric or stockings filled with rice or foam.
3. Field Markers: Mark the throwing line and target area with cones, ropes, or chalk. Repurpose materials like sticks or ribbons for markings if cones are unavailable.</td></tr>
<tr><td>Teaching Strategy</td><td>1. Use verbal and visual explanations, with repetition to ensure understanding. Visual aids like pictograms can help reinforce the sequence.
2. The leader models the activity, showing the proper technique, followed by peer demonstrations.
3. Visual supports, such as a step-by-step chart, are used to outline the activity's order.
4. Encourage participants to repeat instructions, demonstrate actions, and provide feedback to each other.
5. Adjust the difficulty (e.g., throwing distance, object size) based on individual needs to ensure everyone can participate.
6. Offer praise and encouragement throughout to maintain motivation.</td></tr>
<tr><td colspan="2">Teaching Tips</td></tr>
<tr><td colspan="2">1. Use verbal and visual explanations, with repetition to ensure understanding. Visual aids like pictograms can help reinforce the sequence.
2. The leader models the activity, showing the proper technique, followed by peer demonstrations.
3. Visual supports, such as a step-by-step chart, are used to outline the activity's order.
4. Encourage participants to repeat instructions, demonstrate actions, and provide feedback to each other.
5. Adjust the difficulty (e.g., throwing distance, object size) based on individual needs to ensure everyone can participate.
6. Offer praise and encouragement throughout to maintain motivation.
Engagement techniques:
1. Encourage everyone to take turns and cheer on others to keep energy high.
2. Create small teams or pairs to foster a sense of teamwork and fun competition.
3. Offer lots of praise and encouragement, celebrating effort as much as success.
4. Adjust the distance or target size throughout the game to maintain interest.
5. Challenge participants to beat their own previous score or hit a specific target.
6. Get participants involved in showing the proper throwing technique.
7. Play upbeat music to energize the group and create a lively atmosphere.
Adaptation tips:
1. For younger or shorter participants, lower the target to make it more accessible.
2. Use larger or softer items for younger or less experienced participants to make it easier to grip and throw.
3. Reduce the throwing distance for beginners or participants with physical limitations.
4. For participants with learning differences, use visual aids or demonstrations to clarify instructions.
5. Pair up participants to help with aiming or retrieving objects, especially for those with physical disabilities.
6. For sensory-sensitive participants, reduce noise and distractions, or use brightly colored targets for better visibility.
7. Focus on effort and improvement rather than just accuracy to include all skill levels.</td></tr>
<tr><td colspan="2">Differentiation</td></tr>
<tr><td colspan="2">1. Differentiating by skill level</td></tr>
</table>

Beginner (younger children or less experienced players): Use larger targets (e.g., hula hoops or big buckets) to make hitting easier. Provide larger, softer, or lightweight objects like soft balls or foam bean bags that are easier to grip and throw. Shorten the distance between the throwing line and the target to make it more accessible. Give beginners more time to aim and throw (e.g., 1-2 minutes per round).

Intermediate (average skill level): Use medium-sized targets to provide a bit more challenge. Allow participants to use standard-sized objects like soft balls or bean bags. Use a standard distance for the activity to promote more skill development. Set a reasonable time limit (e.g., 1 minute) for each round.

Advanced (skilled players): Use smaller, more challenging targets to increase difficulty. Introduce smaller or less conventional objects, such as small bean bags or weighted sacks, to increase the challenge. Increase the distance from the target to make hitting more challenging. Reduce the time for each round (e.g., 30-45 seconds) to encourage quick thinking and action.

2. Differentiating by ability

For children with physical disabilities: Use larger, softer objects that can be thrown with less force, or provide assistive tools like a lightweight throwing stick for children with mobility impairments. Adjust the target's height or angle to accommodate seated participants or those with limited mobility. Shorten the throwing distance or allow players to throw from a seated position, depending on their needs. For children with sensory needs: use brightly colored targets, throw objects, and markings to make the game easier to follow. Reduce background noise or distractions to help children with sensory sensitivities focus on the activity. Use clear, concise instructions and provide visual demonstrations to ensure understanding.

Assessment Strategy

Feedback approach:

1. Start with what the participant did well (e.g., "Great focus on your aim!" or "I love how you encouraged your teammate!"). Acknowledge effort, not just success, to foster a growth mindset and motivate participants to keep trying.

2. Offer specific, actionable suggestions to improve (e.g., "Try aiming a little higher next time," or "Keep your arm steady for more accuracy"). Keep the tone encouraging and non-judgmental, focusing on improvement rather than mistakes.

3. Ask participants what they think went well and what they can do differently next time (e.g., "How did you feel about your throws? What could you try to improve?"). This encourages them to take ownership of their learning and recognize their growth.

4. Encourage participants to give each other feedback in a positive, supportive way (e.g., "I noticed you really improved your aim!"). Peer feedback can build camaraderie and help develop communication skills.

5. Celebrate all levels of progress, especially for participants who may not be hitting the target but are trying their best (e.g., "Great job on staying focused!"). Emphasize perseverance, teamwork, and the fun of the activity, rather than just the number of successful throws.

6. Provide feedback immediately after each round or at key moments, while the experience is still fresh in the participants' minds. Offer praise and suggestions promptly to keep the energy and learning process ongoing.

7. Tailor feedback to individual needs, acknowledging specific progress or challenges. For example, for a beginner: "You're doing great! Keep practicing your aim." For a more advanced participant: "Excellent precision! Now, try increasing the throwing distance."

Activity 4 (10 minutes): "Mighty Mitts Match!"

Introduction

Participants will work in pairs to collect as many small objects as possible while fostering teamwork, fine motor skills, and coordination. Scatter small objects randomly within a defined collection zone. Ensure the area is safe and free from obstacles.

Action	**1.** Assign participants into pairs. Each pair will have one child wearing the gloves and another acting as the collector who places items into the bowl. **2.** Participants are given large gloves (e.g., kitchen mitts, oversized mittens). **3.** The facilitator explains the rules and signals the start of the game with a loud "Go!" or a whistle.

<table>
<tr><td></td><td colspan="2">4. Participants put on the gloves and try to collect as many small balls (acorns, chestnuts, or other hard natural materials) as possible.
5. The winning pair is the one that collects the most balls.
6. Midway through the game (after 5 minutes), the facilitator may announce a role switch, giving both participants a chance to experience each task.</td></tr>
<tr><td>Materials</td><td colspan="2">1. Materials: large gloves (mitts): Use oversized kitchen mitts or big mittens for each participant. These create the challenge and fun element. Small ball-like objects (acorns, chestnuts, or soft objects): use objects that can easily be picked up with the mitts. Bowls or containers: each pair will need a bowl or container to collect the balls. Make sure these are easily accessible and durable enough to hold the balls. Space: A large open area like a playground, gymnasium, or spacious classroom will allow children to move around freely while collecting and passing the balls. The space should be clear of obstacles for safety.
2. Support Materials: Visual aids: Use pictograms or simple charts to show the steps of the activity (wear mitts, collect balls, pass to partner, place in bowl). These will help children understand the sequence. Demonstration space: Ensure there is an area where the leader can demonstrate how to wear mitts and collect balls, providing a clear visual model for the children.</td></tr>
<tr><td colspan="3">Teaching Tips</td></tr>
<tr><td colspan="2">1. Keep instructions brief and clear, using verbal and visual cues.
2. Demonstrate how to wear the mitts and collect the balls to build confidence.
3. Offer encouragement and praise teamwork during the game.
4. Allow time for children to adapt, supporting them if needed, but encourage independence.
5. Provide breaks or adjustments, like smaller mitts or pairing with a helper, to ensure all participants enjoy and succeed in the activity.
6. Focus on fun and fostering cooperation!
Engagement techniques:
1. Let children choose partners or take turns wearing mitts to keep them engaged. Add excitement by setting time challenges: “How many balls can you collect in a minute?”</td><td>2. Give each pair a team name to foster friendly competition.
3. Set fun challenges: “Can you pick up the balls without dropping any?” Track progress visually (e.g., colorful charts).
4. Celebrate each child’s effort with stickers or praise, not just for winning.
5. Play upbeat music to energize the group and maintain a fun atmosphere.
Adaptation tips:
1. For children with motor challenges: use smaller mitts or allow them to use bare hands.
2. For sensory sensitivities: offer softer balls or allow breaks if needed.
3. For different skill levels: pair kids with varying abilities to support each other.
4. For shorter attention spans: shorten rounds and provide more frequent encouragement.</td></tr>
<tr><td colspan="3">Differentiation</td></tr>
<tr><td colspan="3">1. Adjusting the gloves: For younger or less dexterous children: Use smaller mitts or gloves to make it easier to pick up the balls. For children who need more challenge provide larger or bulkier mitts to increase the difficulty of the task.
2. Task modification: For children with motor skill challenges: allow them to use their bare hands or wear only one mitt to start, then gradually increase the challenge as they build confidence. For advanced participants: introduce a time limit for each round, encouraging them to collect as many balls as possible in a set time.
3. Pairing: For mixed ability pairs: Pair children with varying abilities so they can support each other. A child with more dexterity can help a child with less motor control. For children who need more guidance: pair them with an adult or a more experienced child for extra support.
4. Sensory needs: For children with sensory sensitivities: use softer or lighter materials (like foam balls) to make the activity more comfortable. For children who need sensory breaks: provide a designated spot where children can take short breaks if they feel overwhelmed by the gloves or the activity itself.</td></tr>
</table>

5. Visual or verbal cues: For children with language or cognitive challenges: use clear visual cues, step-by-step instructions, or role-play to demonstrate how the activity works. For children with attention challenges: offer shorter tasks or frequent encouragement to keep them engaged and on task.	
Assessment Strategy	
Feedback approach: **1. Focus on encouragement:** "Great job working together!" or "You did an excellent job picking up the balls!" This boosts confidence and keeps kids motivated. **2. Give feedback on specific actions:** "I love how you passed the ball quickly!" or "You did a great job using the mitts to collect the balls!" **3.** Offer gentle suggestions for improvement, such as "Try holding the ball with both mitts to get a better grip." **4.** Encourage children to recognize and praise each other's efforts: "Look how well your partner is doing! You're really helping each other!" **5.** Ask simple questions after the game like, "What did you do well?" or "What could we try next time to get even better?" to promote self-reflection.	
Activity 5 (5-7 minutes): "Sponge Toss Showdown!"	
Introduction	
Introduction / Setup: **1.** The playing field must be divided in half (e.g., using cones, a rope, or marking with chalk, etc.). **2.** Prepare an equal number of kitchen sponges for each team. The size of the sponges can vary, and the number can also be adjusted	
Action	**1.** Participants are divided into two teams. **2.** Each team stands on their side of the field and tries to throw as many sponges as possible onto the opponent's side. **3.** The winning team is the one that throws the most sponges into the opponent's field within the given time limit.
Teaching Strategy	**1.** Verbally explain the rules: "We are going to divide the field in half, and each team will throw sponges to the other side. The team that has the most sponges on the other side wins!" **2.** Use visual aids (like diagrams or marking the field) to show how the area is divided. Demonstrate how to throw a sponge, ensuring proper technique. **3.** Role-play the game by playing with an adult or a child to show how to throw the sponges and how to handle the rules. Make it fun and playful to engage the kids. **4.** Emphasize teamwork by having children work together to decide the best strategies for throwing the sponges quickly and efficiently. Remind them to encourage each other. **5.** Outline any safety rules beforehand, such as "Make sure to throw the sponges gently and aim for the other side of the field." **6.** Celebrate every successful throw with cheers, saying things like, "Great throw! Keep it up!" to maintain enthusiasm and engagement throughout the game. **7**. Set a clear time limit for the game and inform the children when the time is almost up, to build excitement and urgency.
Materials	**1.** Playing field dividers: cones, ropes, or chalk to divide the playing area into two halves, ensuring each team has a defined side. **2.** Sponge materials: kitchen sponges (ensure they are soft and safe to handle). Adjust the number and size based on the number of participants to maintain a fair game. **3.** Timers or clocks: use a timer or stopwatch to track the time limit for each round of the game. This helps manage the pace of the activity. **4.** Team identifiers: team bands or colored markers (e.g., cones, vests, or arm bands) to distinguish between the two teams. **5.** Safety measures: soft mats or flat surfaces in case any children fall during the game. **6.** Space considerations: ensure there's enough open space for children to move around safely, particularly for throwing and running during the activity.

Teaching Tips

1. Explain the rules before starting the game to ensure everyone understands how to play.
2. Remind children to play safely, avoid running into others, and throw the sponges gently.
3. Keep an eye on all children to ensure everyone is participating and following the rules. Redirect off-task behaviors as needed.
4. Praise good behavior and teamwork, such as "Great job working together!" to encourage cooperation and maintain positive energy.
5. Use a whistle or hand signal to signal the start, stop, or end of the game to keep control of the activity and maintain structure.
6. Keep the teams balanced and ensure the children are in safe, manageable groups for better participation and less distraction.
7. Stick to a set time for each round and provide visual cues (like a countdown) to keep children engaged and aware of the game's progress.

Engagement techniques:

1. Encourage teams to come up with their own cheer or chant before the game starts to build excitement and team spirit.
2. Add a fun twist like having players jump or hop while throwing, or requiring them to run to a specific spot before tossing a sponge.
3. Let children take on different roles, like team captains or spotters, to keep everyone involved and give them a sense of responsibility.
4. Create timed rounds where teams must throw as many sponges as possible in 30 seconds, adding urgency and excitement.
5. Use a visual scoreboard or chalk marks to show how many sponges each team has successfully thrown, giving children a clear goal to work towards.
6. Play upbeat music to energize the children and make the game feel more lively. Stop the music for each round to keep their focus.

Adaptation tips:

1. For children with limited mobility: Allow children to roll the sponge instead of throwing it. Let them participate from a closer distance to the target area.
2. For children with sensory sensitivities: Use soft, squishy sponges or balls that are gentle to handle.Keep the activity in a quiet area with minimal distractions if needed.
3. For younger children: Reduce the throwing distance to ensure the sponges are more easily tossed onto the opposite side. Use larger sponges for easier gripping and handling.
4. For advanced children: Add a time challenge where teams must throw as many sponges as possible in a limited time, increasing the difficulty.
5. For children who need extra support: Pair them with a more confident partner who can help guide them.

Differentiation

1. For younger or less coordinated children: Larger sponges or use soft balls for easier grip. Allow them to throw from closer to the center line to ensure they can participate successfully.
2. For children with limited movement: Offer an option to roll the sponge instead of tossing it, making it easier for those with mobility challenges.
3. For advanced children: Increase the distance from which they need to throw the sponge to make the game more challenging. Introduce a time challenge to encourage quicker throws.
4. For sensory sensitivities: Use soft materials for sponges, ensuring they are not too rough. Allow sensory breaks if the children feel overwhelmed during the activity.
5. Pairing strategies: Pair children with different skill levels together to encourage peer support and collaboration.

Assessment Strategy

Feedback approach:

1. Use a high-five or fist-bump as a simple but powerful way to give positive feedback. You can even pair it with a fun phrase like, "Great job, you're a sponge-tossing superstar!"
2. Give stickers or small rewards for specific accomplishments like "Best Teamwork" or "Most Accurate Throw," creating a fun, tangible way to reinforce learning.
3. After the game, gather the children in a circle and allow them to give feedback to each other. This could be as simple as saying, "I really liked how you threw the sponge so far!" This gives children the chance to reflect and appreciate each other's efforts.

4. Create a praise jar where each child can put a compliment or note of appreciation for their teammates. For example: "You were so fast at getting the sponge!" This can be read aloud after the game.	
Learning Outcomes	
"Tuk Tuk Tree Tag" After completing the activity, the participants will know how to orient themselves in the environment, develop the ability to follow instructions, learn self-regulation methods (deep breathing, using a place of "solitude" or "silence"), cooperation skills. **"Catch the Leader!"** At the end of the activity, the participants will get to know each other better, remember the name. Participants will learn to understand and follow instructions given in different ways. Will improve the skill of waiting, counting, throwing/catching the ball. **Cooperation and orientation skills will be developed.** **"Target Toss Challenge!"** **Skill improvement:** Participants demonstrate improved hand-eye coordination, aim, and motor control as they practice throwing. **Increased engagement:** The competitive and fun nature of the game keeps participants motivated, with high levels of involvement throughout the activity. **Teamwork and cooperation:** When played in teams or pairs, the activity fosters collaboration, as participants cheer for each other and assist with retrieving objects.	**Positive behavior:** Clear expectations and positive reinforcement lead to a respectful and focused atmosphere, with fewer behavioral issues during the game. **"Mighty Mitts Match!"** Motor skills development: Improves hand-eye coordination and fine motor skills. **Teamwork:** Encourages cooperation and communication between participants. Focus and patience: Enhances concentration and patience through the challenge. **Confidence boost:** Builds self-esteem as children succeed in the task. **Engagement and fun:** Keeps children active, engaged, and motivated. **"Sponge Toss Showdown!"** **Teamwork skills:** Children work together, communicating and cooperating to achieve a common goal. Motor skills development: enhances hand-eye coordination, grip strength, and throwing accuracy. Social skills: encourages positive interactions, turn-taking, and sportsmanship. **Engagement and focus:** Maintains attention and participation through exciting, competitive gameplay. Problem-solving: encourages strategic thinking about how to best throw the sponges to outscore the other team.

6.3. Lesson Plan: "Outdoor fun!"

Learning Scenario and Implementation Plan-3	
"Outdoor fun!"	
Target Groups	Primary: Children aged 5 - 7 on the autism spectrum Secondary: Teachers, facilitators, and community - neurotypical children the same age.
Learning Objectives	By the end of the event, participants will have: 1. enhanced motor and life skills: coordination, teamwork, and practical abilities like bandaging and outdoor survival; 2. strengthened social skills: collaboration, communication, and emotional resilience through group challenges; 3. boosted critical thinking: problem solving and adapt strategies during time-based activities; 4. built confidence: self-assurance by completing tasks and overcoming obstacles creatively.
Competencies	

<table>
<tr><td colspan="2">Participants will develop essential competencies, including physical coordination through climbing and bandaging tasks, teamwork and communication by working in pairs or groups, and problem-solving as they adapt strategies to complete challenges. They will enhance emotional resilience and social intelligence, building patience, confidence, and collaboration skills. Additionally, practical life skills such as first aid and outdoor techniques, along with creativity and adaptability, will be strengthened, contributing to well-rounded personal and social growth.</td></tr>
<tr><td colspan="2">Activity 1 (max. 30 min): “From west to north through south and east”</td></tr>
<tr><td>Introduction</td><td>This is an outdoor sports activity for pairs or teams. A facilitator has to prepare 4-5 activities in the application Goosechase (https://goosechase.com/). In the activity, there should be tasks to find the nearest object, the most characteristic historical or natural object.</td></tr>
<tr><td>Materials</td><td>Compass, flashcards, and a phone with Gooschase application (can be downloaded in Google Play).</td></tr>
<tr><td>Action</td><td>1. Participants are divided into pairs or groups.
2. Each team receives 8 challenges in the Gooschase application. (For example, go 48 steps SW, find and photograph 5 different things that you will take with you to an uninhabited island. Go North 105 steps, look for clues about the distances of the nearest cities, take a picture of the city that is farthest from Rezekne.)
3. The winner is the one who has completed all tasks correctly in the fastest time.</td></tr>
<tr><td colspan="2">Teaching Tips</td></tr>
<tr><td colspan="2">1. Prepare clear instructions: use simple, visual aids to explain the tasks. Show how to use the compass and Gooschase app step-by-step.
2. Demonstrate a task: role-play one challenge to model the process.
3. Check for understanding: ask participants to repeat back instructions or demonstrate one step.
4. Support as needed: pair participants with an assistant if required for navigation or understanding.
Engagement techniques:
1. Personalize the challenges: tailor tasks to children’s interests (e.g., spotting specific animals, colors, or textures). Allow participants to decide how they interpret a task, fostering creativity.
2. Encourage team bonding: allow children to choose their teammates or group them based on complementary strengths. Create a team name and let them design a simple badge or symbol for their group.
3. Use a fun theme or storyline to make the activity more immersive (e.g., explorers on a treasure hunt).
Adaptation tips:
1. Use visual supports: Provide clear, visual instructions using cards or pictograms to clarify the steps and sequence of the game. This will help children with autism understand the rules and tasks more easily.
2. Adjust time limits: Allow for extended time if necessary. Children with autism may need more time to process the instructions, decide on their next action, or respond to tasks.
3. Sensory accommodations: Provide sensory-friendly options such as noise-canceling headphones or a quiet space where children can take breaks if they become overwhelmed. Sensory issues are common, and a calm space can help them refocus.
4. Flexible grouping: Consider pairing children based on their strengths and needs. Some may benefit from having a peer buddy who can offer assistance, while others may prefer working alone or with an adult facilitator.</td></tr>
<tr><td>Differentiation</td><td>1. Offer noise-cancelling headphones for children sensitive to sound.
2. Allow breaks at a designated quiet spot if the environment becomes overwhelming.
3. Define the search area with cones or flags to prevent participants from feeling lost or overwhelmed.
4. Assign specific zones for each group to reduce competition and increase focus.</td></tr>
<tr><td colspan="2">Assessment Strategy</td></tr>
<tr><td>1. Engagement: Assess how actively participants take part in the activity, whether they follow instructions</td><td>7. Physical Skills: Track coordination and dexterity while using tools or moving during tasks, ensuring</td></tr>
</table>

and show curiosity or need encouragement to stay involved. **2. Teamwork:** Evaluate how well participants collaborate with peers, share tasks, and communicate during the activity. Note their ability to support and work harmoniously in groups. **3. Task Completion:** Measure the accuracy and efficiency of completing assigned tasks, such as navigating with the compass or using the app effectively. **4. Comprehension:** Observe participants' understanding of instructions and ability to solve problems or adapt to challenges during the activity. **5. Self-Regulation:** Monitor how participants manage emotions, follow turn-taking rules, and seek support when needed, maintaining focus and calmness. **6. Communication:** Review verbal or non-verbal interaction with teammates and facilitators, focusing on clarity and relevance in expressing ideas.	participants can handle physical requirements comfortably. **8. Reflection:** Evaluate participants' ability to articulate what they learned or enjoyed, showing an understanding of their growth or achievements. **Feedback approach:** **1.** Take photos during the activity and review them together, discussing what went well. **2.** Use a short video clip to highlight positive moments, like successful teamwork or problem-solving. **3.** Provide simple, visual reflection cards with prompts like: "What did I enjoy most?" "What did I do well today?" "What would I try differently next time?" **4.** Create stations where participants can leave feedback using emoji cards, drawings indicating how much they liked the activity.

Activity 2 (15 minutes): "Catch and Pass Challenge"	
Introduction	
Introduction	A two-team sports activity. Takes place outdoors and indoors.
Action	**1. Stage 1** - the facilitator marks the distance the teams will cover - at least twenty meters from point A to point B. **2. Stage 2** - the participants are divided into pairs. Each pair receives one scarf. Both participants hold the scarf by the corners. Pairs should stand one meter from one another. The ball is placed in the scarf of the first pair. **3. Stage 3** – after the facilitator's whistle, the pair with the ball swings the scarf and throws the ball to the next pair. The next pair's task is to catch the ball in the scarf and pass it on to the next. Until the last pair of the team catches the ball.
Materials	For each pair, one large scarf or piece of fabric (at least 50cm x 50cm), two balls.

Teaching Tips
1. Start by clearly explaining the task to the participants in simple language, breaking down each stage of the game. Use visual aids such as diagrams or demonstrations to ensure understanding. **2.** Demonstrate the activity with an assistant or a volunteer so that students can see the sequence of actions. Show them how to properly hold the scarf, swing it, and catch the ball. This helps learners who benefit from visual examples. **3.** Provide immediate praise and encouragement for teamwork, effort, and successful actions. Use simple, positive feedback like "Great teamwork!" or "Nice catch!" to keep energy levels high and foster motivation.

Assessment Strategy	
Engagement techniques: **1.** Use a countdown: add excitement by introducing a countdown timer (e.g., 2 minutes to complete the task) or set time challenges (e.g., "Let's see if you can pass the ball in under 30 seconds!"). This increases focus and adds a competitive edge. **2.** Gamify the challenge: turn the relay into a game by awarding points or badges for quick passes, creativity, or teamwork. Track points on a board to create a sense of achievement and encourage friendly competition.	**2.** Ensure the area is clearly marked with visual boundaries (e.g., colorful cones or floor tape) to help children understand where to move and where the task begins and ends. **3.** Pair children with more experienced peers or a supportive adult who can guide them through the task, ensuring they understand the actions required and have someone to help with the scarf and ball.

Adaptation tips: **1. I**f the activity becomes overwhelming, allow children to take brief breaks in a quiet space where they can relax and return when ready. This ensures they stay engaged without feeling overstimulated.	**4.** Some children may be sensitive to the texture of the scarf or the loud noise of the whistle. Use soft scarves and offer noise-cancelling headphones or a quieter signal like a bell or hand gesture to start the game.
Differentiation	The task can be performed in both directions, thus the ball returns back to the scarf of the first pair.

Assessment Strategy

1. Task Completion: Did the child accurately complete the task of passing the ball with the scarf? (Yes/No)
2. Teamwork: Did the child communicate and cooperate with their partner? (Score 1-5) 3.
Emotional Regulation: Did the child remain calm when mistakes happened? (Score 1-5) 4.
Motor Skills: Did the child demonstrate good hand-eye coordination and balance when using the scarf? (Score 1-5)
Scoring:
- **5-7: excellent participation**
- **3-4: good effort, needs improvement**
- **1-2: needs support and further development**

Feedback approach:
1. Provide small rewards like stickers, tokens, or visual feedback (e.g., smiley faces on charts) to celebrate accomplishments.
2. Use short, straightforward language. Focus on what the child did well and gently guide them on how they can improve next time. For example, “You did a great job passing the ball. Next time, try to swing the scarf a little higher!”
3. For children who may become frustrated, offer a calming approach, such as “You did your best today. Next time, we’ll try again. It’s okay to make mistakes!” Provide a quiet space for them to calm down if necessary.

Activity 3 (40 minutes): "Survival Skills Challenge!"

Introduction	Setting up: Team sport activity. Outdoor activity.
Action	The task of the teams is to light a bonfire and set up a poncho tent after the teacher's whistle. The winner is the team that correctly performed the task in the fastest time.
Materials	Fire pit, wooden material, raincoats and wooden stakes.

Teaching Tips

1. Start by clearly explaining each task (lighting the bonfire and setting up the poncho tent) using simple, direct language. Break down the steps and provide visual cues or demonstrations if necessary to ensure all participants understand the process. **2.** Demonstrate how to safely light a bonfire and set up a poncho tent before the activity begins. 3. Prioritize safety by explaining the rules for handling fire and using tools (like wooden stakes and fire pit materials. **4.** Highlight the importance of teamwork. Encourage students to divide tasks, such as one person gathering wood and another setting up the tent. Ensure that each child actively participates in the process. **Engagement techniques:** **1.** Allow teams to come up with their own creative names and assign specific roles (e.g., "Firestarter," "Shelter Builder," "Wood Gatherer"). This will give the children a sense of ownership and purpose during the activity.	**3.** Frame the activity within an adventurous narrative (e.g., “You’re stranded on an uninhabited island and need to build shelter and make a fire to survive”). This helps children feel like they’re part of an exciting story, adding fun and context to the tasks. **4.** Play upbeat music or sound effects (like nature sounds or campfire crackling) to create a lively and immersive environment. This keeps the atmosphere fun and encourages children to stay engaged. **Adaptation tips:** **1.** For children sensitive to noise, provide noise-cancelling headphones or offer a quieter environment to complete tasks. **2.** Provide visual cues for each task (e.g., step-by-step charts or pictorial guides). Mark specific areas where tasks should take place, such as a marked fire pit or shelter zone, to reduce confusion. **3.** For children who need extra help, pair them with a buddy or an adult.

2. Create mini challenges along the way, like having to find certain types of wood or materials for the shelter. For example: “Find a piece of wood shaped like a triangle for the tent!” This keeps the children actively engaged and problem-solving.	**4.** Create a quiet space for children who may become overwhelmed by the activity or sensory input. Allow them to take short breaks to calm down before rejoining the group.
Differentiation	**1.** Teachers can do a demonstration before doing the tasks or give an instruction sheet for team members to follow the directions. **2.** Students of older classes can also be offered to find information on how to light a fire and how to build a poncho tent.
Assessment Strategy	
1. As they complete tasks or meet goals, add stickers or symbols to their personal section of the chart. This visual feedback helps children see how they’ve improved and keeps them motivated. **2.** After the challenge, gather the group for a "Campfire Story" reflection session, where children share what they learned and what they enjoyed. This can include storytelling elements like "What was your favorite part of building the shelter?" or "Tell us how you solved a challenge with your teammate!" This informal and reflective approach encourages positive thinking. **3.** Use emoji-based feedback, where children rate their own performance using smiley faces or other emojis (e.g., for excellent, for okay, for needs improvement). This can be visually engaging and simple for children to understand, especially younger kids or those who may struggle with verbal communication.	
Activity 4 (20 minutes): "Whisper Challenge"	
Introduction	**Set up:** Team sport activity. Takes place outdoors or indoors. Team members are placed 5-10 m away from each other.
Action	**1.** The first participant is given a text - no more than three short sentences. **2.** Using gestures, information must be passed to the second participant in the team. **3.** Then the second participant passes the message to the next, and so on until the message reaches the last participant. **4.** The last participant writes down the message and hands it over to the judge for evaluation. **5.** The team whose last member's message is the most similar to the original version and whose task is completed within the shortest time wins.
Differentiation	Message card with gestures
Teaching Tips	
1. Clear instructions: Demonstrate how to pass a message using gestures. Keep the rules simple and use visual cues if necessary. **2. Encourage teamwork:** Emphasize collaboration and active listening. Remind children that everyone’s role is important to the game’s success. **3. Use creativity:** Let children create their own gestures to make the game more fun and engaging. **4. Promote patience:** Remind participants to be patient, listen carefully, and pass the message accurately. **5. Positive reinforcement:** Praise good teamwork and creativity, even if the message isn’t perfect. **6. Adapt as needed:** Adjust the difficulty of the messages based on the children’s abilities, ensuring it’s suitable for all participants. **Engagement techniques: 1.** Play upbeat music during the game or between rounds. The rhythm and energy from the music can keep children energized and	2. Encourage children to create their own unique gestures for the game. This adds fun and creativity, allowing them to feel more involved and excited. For example, instead of standard gestures, participants could create animal-like movements or use their whole body. **Adaptation tips:** **1.** Break down the instructions into smaller, clear steps. Use visual aids (e.g., pictures or diagrams) to reinforce the process for children who may need extra support in understanding verbal instructions. For example, provide visual cues on how to pass the message using gestures. **2.** Adjust the complexity of the message based on each child’s abilities. For younger or less verbal children, use simpler phrases or familiar vocabulary. For older children or those who can handle more complexity, use abstract concepts or longer sentences.

engaged throughout the game, making it more enjoyable.	**3.** Allow additional time for children who need it to process the message or perform the task.
Activity 5 (30 minutes): "Mountain climber"	
Introduction	**Setup:** An activity can be performed in pairs or teams. Takes place outdoors and indoors.
	1. There are two parts to this sports activity – climbing a mountain and bandaging an injured arm. **2.** In the first part, the pair forms a chain with the help of carabiner hooks (chain length 1m). **3.** In the second part, it is chosen whom to bandage the injured arm with the existing materials. **4.** The winner is the pair who completes the task in the shortest amount of time and the hand tying is performed most correctly.
Resources	Carabiner hooks, a scarf, a piece of board 30-40 cm long and ~10 cm wide.
Teaching Tips	
1. Start with clear, simple instructions for both tasks. Demonstrate how to properly use the carabiner hooks to form a chain and explain the importance of team coordination in the climbing portion. **2.** Similarly, demonstrate the correct technique for bandaging the injured arm, emphasizing safety and accuracy in the process. Use visual aids or step-by-step diagrams if necessary. **3.** The activity requires effective communication and cooperation between partners. Encourage teams to discuss strategies for both the climbing and bandaging tasks before beginning. This fosters collaboration and ensures both participants understand their roles. **4.** For children with physical limitations or sensory sensitivities, adjust the difficulty of the climbing task (e.g., reducing the length of the chain or simplifying the bandaging process). **Engagement techniques:** **1.** Assign roles within each pair (e.g., "Climber" for the chain part and "Medic" for the bandaging task). This gives children a clear responsibility and keeps them engaged throughout both parts of the activity. You can switch roles after each round to give everyone the chance to try both tasks. **2.** Frame the activity within a storyline to make it more engaging. For example, "You are a rescue team in the wilderness, and you must work together to get to the summit (the chain formation) and help an injured teammate (bandaging the arm) to survive." **Adaptation tips:** **1.** For children with physical limitations: adjust the carabiner chain length or provide easier-to-manage tools (e.g., plastic carabiners or lighter materials) to make the task less challenging. You can also shorten the distance for the "climbing" task, allowing for a more accessible version. **2.** For the bandaging task: simplify the steps of the bandaging process for children who may struggle with fine motor skills. Use larger bandages or softer materials that are easier to handle.	
Differentiation	
1. Visual aids can help children who struggle with processing verbal instructions. For example, use simple pictograms or a step-by-step guide for both the climbing and bandaging parts of the activity. **2.** Short, clear verbal instructions help children who may struggle with longer or more complex directions. Break down each step and ensure understanding before moving on to the next task. **3.** Pair children based on complementary strengths. For example, pair children with stronger coordination with those who may need more support or assistance in executing the tasks. **4.** Alternate roles between team members to give all participants an opportunity to practice both skills (climbing and bandaging). This allows children who may struggle with one task to participate in the other and balance out their abilities.	
Assessment Strategy	
Feedback approach: **1.** After the activity, present a “Mission Complete” certificate or sticker to each participant. **2.** Hold a reflection circle after the activity where children can share what they think went well and what they could improve next time. Ask them questions like “What was the trickiest part of the task?” or “How did you	

<table>
<tr><td colspan="2">feel working with your partner?” This encourages self-reflection and helps children internalize the feedback.</td></tr>
<tr><td colspan="2">Activity 5 (min. 10 minutes): "Domino sprint"</td></tr>
<tr><td colspan="2">Introduction</td></tr>
<tr><td colspan="2">An activity can be performed in pairs or teams. Takes place outdoors and indoors. All dominoes are placed face up on the opposite side of the gym or sports field. The start line is marked.</td></tr>
<tr><td>Action</td><td>1. The team that will start the activity is determined.
2. Participants line up one after the other (in a column). This is the order in which participants will head to the other side of a space (field, gym) and correctly place one domino.
3. After the facilitator’s whistle, the game starts. One team plays against the other.
4. A participant can head to place the domino only after the member of the opposing team has returned.
5. After 10 minutes, the facilitator blows the whistle again. The team whose member is at the domino section has lost.</td></tr>
<tr><td>Materials</td><td>Big dominoes, whistle (for the facilitator), a ribbon or a marker to mark the start line.</td></tr>
<tr><td colspan="2">Teaching Tips</td></tr>
<tr><td colspan="2">1. Prepare a step-by-step visual schedule or diagram that explains the game rules and sequence to ensure clarity.
2. Show exactly how the activity works with a brief and fun demonstration. Use peers or co-facilitators to model the activity.
3. Use simple, direct questions to confirm understanding (e.g., "What do we do after the whistle?").
Engagement techniques:
1. Occasionally blow the whistle for a bonus round where players must place two dominos instead of one.
2. Hide fun challenges under some dominos (e.g., "Do a silly dance before running back").
3. Add soft mats, sandpaper strips, or bubble wrap along the path for tactile stimulation. Make it like a sensory path.
4. Play upbeat or thematic music during the activity to energize participants.
5. Give each team a small flag to wave as they cheer for their runner.
Adaptation tips:
1. Instead of running, allow participants to walk, hop, or use mobility aids (e.g., wheelchairs or scooter boards) if needed.
2. Shorten the path between the starting line and the domino section for participants who might tire easily.
3. Limit the number of dominoes each team needs to place to keep the game manageable.
4. Allow participants to go in pairs for placing the domino.</td></tr>
<tr><td>Differentiation</td><td>1. Provide a visual chart or sequence of the game's steps (e.g., "Wait → Run → Place Domino → Return").
2. Show a clear demonstration of the game before starting.
3. If the whistle sound is too overwhelming, use a visual cue (e.g., raising a flag) or a softer sound (e.g., a hand clap or bell).
4. Dominoes can be traditional - with dots, but also with images, for example, animals, plants, etc.</td></tr>
<tr><td colspan="2">Assessment Strategy</td></tr>
<tr><td colspan="2">Feedback approach:
1. Provide instant feedback like “Great job placing that domino!” or “I love how you waited patiently for your turn!” to reinforce desired behaviors.
2. Give stickers or stamps for participation, teamwork, or creativity (e.g., "Super Runner" or "Team Spirit’’.</td></tr>
<tr><td colspan="2">Learning Outcomes</td></tr>
<tr><td colspan="2">The activities aim to foster essential physical, social, and cognitive skills in participants, with a focus on teamwork, problem-solving, and personal growth. Children improve physical coordination through tasks like</td></tr>
</table>

climbing, catching, and tossing, while developing communication skills in group-based challenges such as the Whisper Relay or Gooschase tasks. Emotional resilience and self-confidence are built by completing timed and practical challenges, such as setting up shelters or bandaging an injured arm. Additionally, participants gain critical thinking and decision-making abilities by solving problems creatively under time constraints. Activities like the Bonfire Challenge emphasize environmental awareness and resourcefulness, while others enhance digital literacy through the use of apps like Gooschase. Overall, these tasks promote inclusion, adaptability, and personal achievements, ensuring holistic development.

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Acknowledge and Gratitude

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Each chapter of this curriculum reflects the collective knowledge, experiences, and shared vision of our partner institutions across Europe, who worked tirelessly to ensure that inclusive Physical Education becomes a reality for students with autism.

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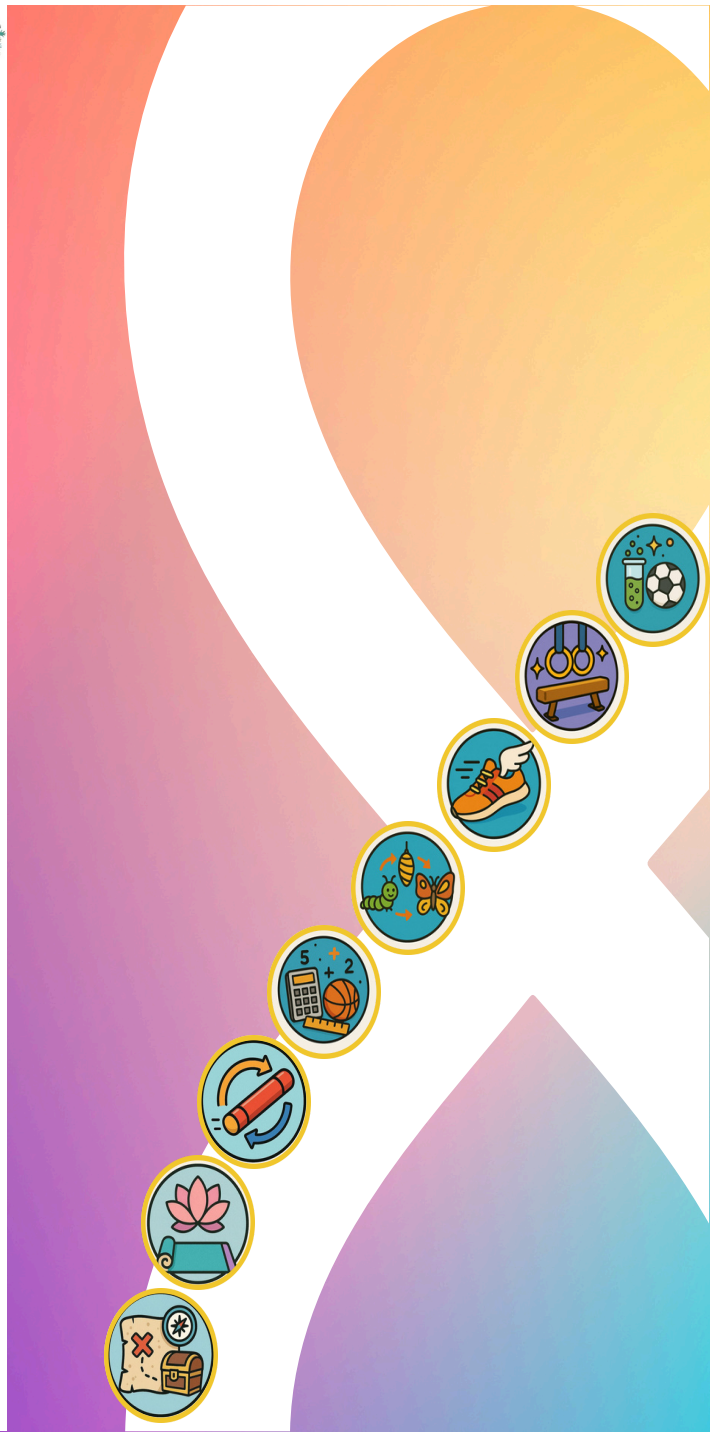
Your contributions have not only enriched this curriculum but have also strengthened the foundation for a more inclusive and empowering educational experience for students with autism.

Together, we are creating a meaningful impact—one that ensures every student has the opportunity to move, connect, and thrive.

With heartfelt appreciation,

The EmpowerAble Project Team



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