

# S4D Activity SDG 4: “Shuttle Divisions”

This S4D Activity [example](#) shows **how PE can be combined with other subjects**, in this case how sport can be used to strengthen mathematical literacy through play. More teaching and learning materials (manuals, training session, activities etc.) related to the topic of “Sport and Education” can be found [HERE](#).

## KEY MESSAGES ON MATHEMATICAL LITERACY

- (1) Mathematical literacy, (also known as numeracy) means having the ability to problem-solve, reason, and analyse information.
- (2) Mathematical literacy is the second key step in the learning journey for children after language literacy. It is the ability to use numbers to help solve real-world problems.

Category S4D Activity <sup>1</sup>	Phase	Duration	Target Group	Setting	Equipment/Materials
Running Game	Warm-up	10 min.	10+ years	Open field	Cones, paper

S4D COMPETENCES <sup>2</sup>	
<b>LIFE COMPETENCES/SKILLS</b>	<b>SPORTING COMPETENCES</b>
Self-competence: <b>Problem solving</b>	<b>Motor competences:</b> Speed <b>Technical competences:</b> Running <b>Tactical competences:</b> Mental arithmetic with quick reaction skills
<b>Learning Objectives Life Competences</b>	<b>Learning Objectives Sporting Competences</b>
<i>After the training session children/youth are able to:</i> ... analyse and correct errors, while retaining control of their own feelings and actions. ... identify problems in the learning environment and develop strategies to be able to reach a solution. ... apply different problem-solving frameworks to complex problems.	<i>After the training session children/youth are able to:</i> ... run fast around objects towards a specific target. ... react quickly and start running. ... combine mental skills with motor, technical and tactical competences.



<sup>1</sup> Reference: [Primecoachingsport, Grade 3-4 learn math through sport](#)

<sup>2</sup> S4D Competences should be part of every S4D Activity and S4D Training Session. Please find [HERE](#) a collection of S4D competences children and youth can gain through their participation in S4D Activities and Training Sessions related to *Education*. To get an idea how we define *S4D Competences, Life Competences/Skills, Sporting Competences* and *Learning Objectives*, please have a look in our [Glossary](#).

# S4D Activity SDG 4: "Shuttle Divisions"

## Description

- Divide the class into 4-5 teams
- Each team needs to line up behind a starting cone at one end of the playing area
- Randomly place the 10 tall cones in the playing area further ahead. Each tall cone needs a number sheet (1-10) stuck onto it. Make sure that all cones can be reached equally by all teams.
- Call out a division question (e.g. " $45 \div 9$ " or " $70 \div 7$ "...).
- The first player in each team must work out the answer and then run around the correct cone and back to their team as quickly as possible.
- The Teams can count up points for that round, e.g: The kid who runs back 1st receives 20 points; 2nd place receives 15 points; 3rd place receives 10 points; 4th place receives 5 points
- **Progression:**
  - After a few rounds, now instead of division, the teacher calls out just an answer of multiples e.g. " $32$ " or " $63$ "
  - Students have to run and touch 2 cones with numbers that multiply to make the sum (For example: " $27$ ", touch cone #3 and cone #9 (because  $3 \times 9 = 27$ ))

## Variations

- Instead of letting the first person work out the number alone, you can allow the whole team to help.
- Each time you play this activity, you can **change** the way students have to get **around the cones** and back, using **sport-specific equipment**. For example, instead of running, they can use a hockey stick and dribble the ball, racquet and tennis ball and bounce the ball, use a football and dribble the ball, use a basketball and dribble the ball or use movement variations e.g. jumping on one foot etc.

## The Reflection in 4 Steps

Coaches can decide if the reflection takes part after the activity or at the end of the session. There are many ways of conducting a reflection. [HERE](#) you'll find a guideline including examples of ways/methods how a reflection can be done and how participants can be organised. However, the coach can also use her/his own variations depending on the number of participants and space available. To reflect the S4D Activity described, you can take the following steps:

Before starting the reflection, gather participants in a circle and make sure to create an environment where participants feel comfortable to take part in the reflection and an open discussion.

**Step 1: REFLECT** - Ask the participants about their experiences during the S4D Activity:<sup>3</sup>

- How did you like the activity?
- How did you like the combination of sport and mathematics?
- Was it easy or hard for you to work out the numbers and run to the correct cone?

**Step 2: CONNECT** - Make a connection to daily-life situations:

- Would you say mathematics can help us in our daily lives to solve problems? If yes, can you think of specific situations?
- Name different daily life situations where you have to calculate something. Do your mathematical skills help you in these situations?

**Step 3: APPLY** - Ask them about specific Actions:

- Can you come up with other games that will help you improve your math skills in a fun way?

**Step 4: ACTION** - Agree with the participants on specific actions

To deepen the participants understanding of the topic and its relevance in their daily life, give them one or two tasks ("homework") to do before the next training session.

**Examples:** Think of games and activities that you know from physical education classes or free time. Try to combine these activities with math skills. Write down an example and ask your math teacher if you can play the game in one of the next classes.

<sup>3</sup> All questions listed are examples and can be replaced.