Doing Maths in PE Activity Kit (PE00942)

A fun PE and maths resource kit with plenty of opportunities to enjoy learning maths in an active way. Pupils can engage in physical activities whilst also improving their mathematical skills!

The kit includes resources like beanbags, skipping ropes, measuring tape, action talk balls, outdoor minute timer and much more, all in a handy large storage bag, (though please note contents may vary).

You can even use the **Team Selector Bands** (provided in the kit) to select teams. This will mix the group randomly and get children working with others that they wouldn't normally work with.

Ideas and suggestions

Here are some examples of ways you could use them.

Using the beanbags

- Target games- Throw the beanbags at the targets and add up the scores. You could even throw two bean bags and multiply the numbers together.
- Number bond toss- Throw bean bags to numbered circles to make number bonds to 10.
- Relay race- Have teams move a specific number of bean bags from one bucket to another alternating different movements such as hopping, running, skipping.
- Colour matching- Throw all the red beanbags into the red circle, all the green into the green circle and then count how many you have got in each group.

Vary the activities using the different types of beanbags, for example, fractions, percentages. Encourage the children to create their own games using the beanbags.

Using the hopscotch numbers

- Number line- children can jump or hop to specific numbers in a sequence or to solve mathematical calculations. They can move forwards and backwards along the line.

Adapt challenges to make them easier or harder. Use different numbers to extend challenge. For instance, odd and even numbers, multiples of 5, negative numbers. Record scores using clipboards and paper to reinforce written maths skills and to show workings out.

Using the target mat

- Target sum- Encourage children to play games to reach a target score. How close to the target can they get before they go bust?
- Calculations- Throw beanbags onto the target mat and add up the scores. What is the highest score they can reach using three beanbags? Try throwing two beanbags and multiplying the numbers landed on.
- Number recognition- Aim for a number on the mat. When it has been hit choose a physical activity to do that number of times whilst counting to the given number. For example, land on 10 and choose to do 10 hops.

Use the target mat to combine physical skills of throwing and aiming with core maths skills like subtraction, addition, multiplication, doubling and halving, and number recognition.

Using the timer

- One minute scavenger scurry- Get the children to collect a specific number of natural items e.g. 10 leaves, 5 twigs, or 3 stones, within the set time. Once gathered they can sort and count their treasures.
- Moving items- Move objects from one container to another in a set amount of time. See who can gather the most items.
- Speed obstacle course- set up a simple obstacle course and time how many laps can be completed in one minute. Compare the results and improve speed. Show data.
- Sand pouring capacity- Fill up different containers with sand to see which holds the most. Use the timer to find out how long it takes to fill each container.
- Number dash- Write a number on the chalk board or in the sand. When the timer starts children run to collect that number of sticks or stones and place them on the number before the timer runs out.

Vary the time intervals using 1 minute, 3 minute, 5 minute timers to adapt to different tasks. Estimate by asking how many? questions before the timer starts to develop estimating skills. Record times to see what they can do in a set time. Children could work together to set each other challenges.

Using the action talk balls

- Ball throw- Throw the ball around a circle and aim to reach a target number without dropping the ball and breaking the sequence. If the ball drops everyone performs one of the exercises on the ball, such as 5-star jumps.
- Throw and catch the ball- As the thrower throws the ball they say a number, the catcher doubles or halves the number before returning it back. This could also be done with number bonds, multiplication facts, etc. If the ball is dropped again perform one of the exercises on the ball.
- Perform an action- Roll the ball and perform the exercises to the selected numbers.

Use alongside other resources in the kit such as the timer for timed challenges. Master basic movements including running, jumping, skipping, as well as balance, agility and co-ordination. Collect data from the fitness activities to show how many physical movements have been completed each day. Set a target to aim for and encourage everyone to stay fit and active.

Using the skipping ropes

- Encourage children to skip while counting. They could count in twos, fives, tens, etc. How many successful jumps can they make while reciting a specific times table? Use the timer to record how many successful jumps they can make in one minute. Record all the points and work out the average score.
- Work in teams and take turns to skip until they trip or stop and calculate the total for each team. Use tally charts to record each skip.
- Use the ropes to form different 2D shapes on the ground. Ask the children to identify the shapes and jump along its perimeter.
- Shout out different maths calculations and get the children to answer by jumping to the total with their ropes.
- Use the ropes as a line of symmetry. Working in pairs and using natural materials such as leaves, twigs or stones, get children to create a shape or picture on one side of the line and challenge the partner to create the mirror image of it on the other side.
- Lay the skipping ropes on the ground in a straight or curvy line or in a shape and ask the children to move along the rope forwards and backwards and count how many hops, jumps, steps, feet in takes.
- Use the ropes for measuring- How many skipping rope lengths is the hall or playground? Ask them to discuss and estimate first. Who thinks more than 5? Who thinks less than 10? Record all the answers. Let's see who is nearest? Ask how they could do this? Let them do it. Get them to check their estimation. Look for interesting ways of doing this and discuss which one is probably the most accurate. Do the same for the width and then the perimeter of the hall or playground. Look for the relationship between length, width and perimeter.
- Lay the ropes end on end and introduce fractions, percentages and decimals (the divisions could be labelled) Give instructions to get everyone moving around the space and then call out a fraction/percentage/decimal and get everyone to stand at that point.

The skipping ropes can be used in many creative ways to increase coordination, fitness, balance and engage pupils in active maths.

Other ideas

Encourage the children to be creative and invent games using the equipment. They can take it in turns to demonstrate each game for the other groups to play. Here are some suggestions:

- Target maths- Write a number on the ground or on the wall in chalk as the target to aim for. Invent different games and challenges to try to reach the target number. An idea could be to count skips using the skipping ropes. Children could do this individually or together in a team. They could complete different activities and combine their scores and work out problems such as how many star-jumps each person needs to reach to hit the target.
- Relay races- Children work in teams to solve maths problems at different stations. These could be quick maths challenges or puzzles. Why not use the timer to teach pupils about estimating and measuring time.
- Scoring games- Throw beanbags towards a hoop and score points for every beanbag that lands in it. The game could be extended by having more than one hoop to aim for with different values for calculating different scores. Place a bucket inside the hoop(s) to score more points or use the target mat.

There are many ways to use the Doing Maths in PE Activity Kit. Have fun and if you have any brilliant ideas you would like to share with us then please get in contact, we'd love to hear from you.