M4THS 'N' MOVEMENT

Level 3

GRADE 2

English Curriculum Edition
www.mathsnmovement.co.uk

Rachel McCann

Move the desks to the side of the room it's time for maths!

This edition of Maths 'N' Movement is designed specifically for English Schools and combines the National Mathematics Programmes of Study with the Physical Education Programmes of Study. With programs available from Kindergarten to Year 6 it provides a fun way to effectively engage students in maths learning across all 17 strands of the Maths Curriculum.

Maths 'N' Movement increases both on task student behaviour and fitness by combining Maths with the key PD/H/PE topics of fundamental movement skills, co-operation, game play, safety, nutrition and acceptance of consequences for one's actions.

Designed to get more students, more active, more often, Maths 'N' Movement is a dual strand teaching strategy that leap-frogs time constraints by teaching twice as much in half the time. Best of all, your students won't even realise they are working so hard because they are having so much fun!

For further information on the best way to use this program and additional teaching resources visit www.mathsnmovement.co.uk.

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M4THS 'N' MOVEMENT

LEVEL 3
GRADE 2

TABLE OF CONTENTS

English Curriculum Edition

LEVEL 3 Grade 2

WHOLE NUMBER

In this Maths 'N' Movement activity students will apply place value informally, to count, order, read and represent 2 and 3 digit numbers.

ACTIVITY

1. In teams of 4 or 5, students sit 5 metres from their 10 bundles of paddle pop sticks.
2. When a number up to 100 is called the first student in each team races, using the given movement, to their paddle pop sticks and counts that many sticks into their team's transport container.
3. The student races back, gives the second student the sticks to count to see if the correct number were collected and records their sticks on their team's Whole Number Recording Sheet.
4. If correct, the student who collected the sticks moves to the end of the team. If incorrect, additional sticks must be collected or returned.
5. This process should be repeated until all students have had a chance to collect and check the sticks 4 times.

Equipment Required:

- 100 paddle pop sticks in 10 elastic bundles of 10 per team.
- A container to transport paddle pop sticks per team.
- A Whole Number Recording Sheet and pencil per team.

Notes:

If smaller numbers are called 2 students could collect sticks and then add their sticks to find a combined total. Students could also calculate how many sticks are left once the given number have been removed.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Addition - Uses a range of strategies for addition if two sets of sticks are added together.

Subtraction - Uses a range of strategies for subtraction if the remaining sticks are calculated.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement skills depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

WHOLE NUMBER RECORDING SHEET

Round 1	Number	Bundles of 10 Collected	Single Sticks Collected
Student 1: _____			
Student 2: _____			
Student 3: _____			
Student 4: _____			
Student 5: _____			

Round 2	Number	Bundles of 10 Collected	Single Sticks Collected
Student 1: _____			
Student 2: _____			
Student 3: _____			
Student 4: _____			
Student 5: _____			

Round 3	Number	Bundles of 10 Collected	Single Sticks Collected
Student 1: _____			
Student 2: _____			
Student 3: _____			
Student 4: _____			
Student 5: _____			

Round 4	Number	Bundles of 10 Collected	Single Sticks Collected
Student 1: _____			
Student 2: _____			
Student 3: _____			
Student 4: _____			
Student 5: _____			

LEVEL 3 Grade 2

ADDITION

In this Maths 'N' Movement activity students will use a range of strategies and informal recording methods for addition involving 1 and 2 digit numbers.

ACTIVITY

1. In teams of 4, students sit 5 metres from their pile of Addition Numbers from 1 to 9.

2. Each student races, using the given movement, one after another, to the pile of numbers and retrieves one card.

3. The first student records their number in the 1st box on their team's Addition Recording Sheet, the 2nd student in the 2nd box and so on until all 4 numbers are recorded.

4. As a team students add up the 4 numbers and place the answer in the required box.

5. All cards are returned to the pile, students change positions and the activity is repeated so each student has a chance to be 1st, 2nd, 3rd and 4th.

Equipment Required:

- A set of Addition Numbers from 1 to 9 per team.
- An Addition Recording Sheet and pencil per team.

Notes:

Although it has been suggested that groups contain 4 students they could be larger and more numbers added together each time in that particular group. The Addition Recoding Sheet contains enough space to complete this activity twice so each students has 2 chances to be 1st, 2nd, 3rd and 4th

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Position - Represents and describes the positions of objects in everyday situations using ordinal numbers such as 1st, 2nd, 3rd and 4th.

PD/H/PE Outcomes Covered:

Communicating - Communicates appropriately in a variety of ways.

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement skills depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

ADDITION RECORDING SHEET

Round	1st Number	2nd Number	3rd Number	4th Number	Total of all 4 numbers
1					
2					
3					
4					

Round	1st Number	2nd Number	3rd Number	4th Number	Total of all 4 numbers
1					
2					
3					
4					

ADDITION RECORDING SHEET

1	6
2	7
3	8
4	9
5	

LEVEL 3 Grade 2

SUBTRACTION

In this Maths 'N' Movement activity students will use a range of strategies and informal recording methods for subtraction involving 1 and 2 digit numbers.

ACTIVITY

1. In teams of 4 or 5, students sit with their Subtraction Recording Sheet at least 5 metres from their team's $5 money cards.

2. Each team is shown a Shopping Card and calculates on their Subtraction Recording Sheet the change from $5 required if that item was purchased.

3. The first student in each team must race, using the given movement, to their $5 money bowl and counts out the correct change.

4. When correct the student returns to their team and the next student in each team is shown either a new item or multiple items to be purchased.

Equipment Required:

- A selection of coins to make $5.00 in a bowl per team.
- A Subtraction Recording Sheet and pencil per team.
- The Subtraction Shopping Cards.

Notes:

The shopping items need not be limited to those provided here but could be called out without a picture to accompany them or additional cards could be made from store catalogues. Also the change need not be limited to $5 but could be higher depending on student's ability.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Addition - Uses a range of strategies and informal recording methods for addition if multiple items are purchased.

PD/H/PE Outcomes Covered:

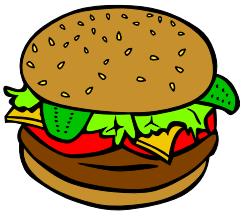
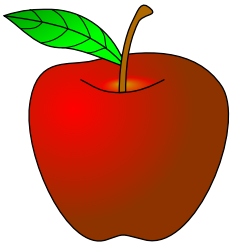
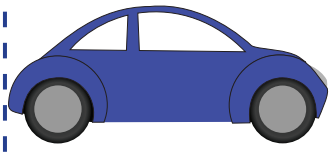
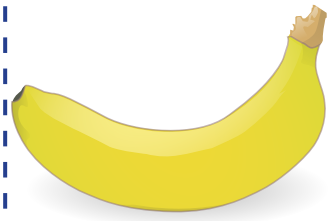
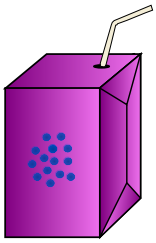
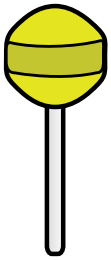
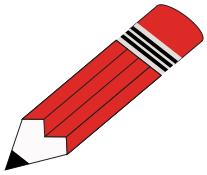
Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on movement selected.

Problem Solving - Draws on past experiences to solve familiar problems.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

SUBTRACTION SHOPPING CARDS

$3.50 	$2.00 	$1.00 	50c 
$5 	70c 	$1.20 	$4.90 
$1.60 	$2.50 	30c 	90c 

SUBTRACTION RECORDING SHEET

Item	Cost	Change from $5

LEVEL 3 Grade 2

MULTIPLICATION & DIVISION

In this Maths 'N' Movement activity students will use a range of mental strategies and concrete materials for multiplication and division.

ACTIVITY

1. Students stand in the middle of the Multiplication & Division Number Cards '2', '3', '5' and '11' which are in 4 hula hoops spread in a large circle with at least 7 metres between each number.

2. When a number is called students race, using the given movement, to the number which represents the table to which the called number belongs. So if 8 is called students would move towards the 2. If 15 was called students could choose to move towards either the 5 or the 3 and both would be correct.

Equipment Required:

- The Multiplication & Division Number Cards '2', '3', '5' and '11'.
- 4 hula hoops in which to place the Number Cards.

Notes:

The factors need not be limited to those given but could include any tables with which the students are familiar or are in the process of learning. It could also be the task of the last student to reach the correct card to call the number for the next round thus giving them more of a chance of not being last as they already know where they need to be heading.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and classmates.

Moving/FMS - Demonstrates maturing performance of basic movements depending on movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

Safe Living – Recognises that their safety depends on their environment and the manner in which they move between the numbers.

MULTIPLICATION & DIVISION RECORDING SHEET

2	3
5	11

LEVEL 3 Grade 2

FRACTIONS & DECIMALS

In this Maths 'N' Movement activity students will represent and model halves, quarters and eighths.

ACTIVITY

1. In teams of 4, students sit 5 metres from their team's bowl of 30 counters.
2. When a number less than 30 is called the first student in each team races, using the given movement, to collect that many counters.
3. As a team, students work together to see if the counters can be divided evenly into 2 (half), 3 (thirds) or 4 (quarters) groups.
4. On their team's Fraction and Decimal Recording Sheet students record how many counters were in each group or if it could not be divided evenly.
5. The first student races the counters back to their bowl and the the remaining team members take it in turn to collect and return counters.

Equipment Required:

- A bowl containing 30 counters per team.
- A Fraction and Decimal Recording Sheet and pencil per team.

Notes:

If preferred this activity can be limited to students dividing the counters into just one fraction such as halves, quarters or eights rather than all three in the one activity. The fractions not used this time can be used at a later time.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

FRACTIONS & DECIMALS RECORDING SHEET

Number of Counters	$\frac{1}{2}$ or 0.5	$\frac{1}{4}$ or 0.25	$\frac{1}{8}$ or 0.125
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.
	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.	Counters is each group _____ or can't be done.

LEVEL 3 Grade 2

CHANCE

In this Maths 'N' Movement activity students will recognise and describe the element of chance in everyday events.

ACTIVITY

1. The 4 Chance Cards - 'Definitely Will', 'Definitely Won't', 'Might Happen' and 'Might Not Happen' are place on the ground in hula hoops in a large circle with at least 7 metres between each card.

2. Students stand in the middle of the circle and listen to a Chance Scenario.

3. Students race, using the movement given, to the card which they think best describes the probability of the scenario occurring.

4. After discussing why a particular Chance Card was chosen students return to the centre of the circle and a new scenario is read.

Equipment Required:

- The 4 Chance Cards.
- The list of suggested scenarios.
- 4 hula hoops in which to place the cards.

Notes:

This activity can be adapted to include any questions you would like the students to consider and can be an interesting way to launch into Pd/H/PE lessons with questions including eating habits, water consumption or weekly exercise.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Addition - Uses a range of strategies and informal recording methods for addition to solve addition scenarios ie. 4 + 4 will equal 8.

Subtraction - Uses a range of strategies and informal recording methods for subtraction to solve subtraction scenarios ie. 10 - 5 will equal 3.

Multiplication & Division - Uses a range of mental strategies to solve multiplication & division scenarios ie. 2 x $3 will equal $6 .

PD/H/PE Outcomes Covered:

Decision Making – Recalls past experiences in making decisions

Moving/FMS - Demonstrates maturing performance of basic movement depending on movement selected.

Active Lifestyle – Participates in physical activity, recognising that it can be both enjoyable and important for health.

Safe Living – Recognises that their safety depends on their environment and the manner in which they move between the cards.

CHANCE CARDS & SCENARIOS

Definitely Will	**Definitely Won't**
Might Happen	**Might Not Happen**

Possible Scenario Ideas

- If I bought an apple for 50c and gave the shop keeper $2, I would get $5 in change.
- If I had 6 oranges and got 9 more I would have 15 oranges.
- If 4 students each had 2 pieces of apple there would be 3 pieces of apple altogether.
- You will eat a piece of fruit today.
- You will eat a packet of chips today.
- You will watch TV today.
- You will spend more than 5 hours on an electronic device today.
- You will have fun in maths today.

LEVEL 3 Grade 2

PATTERNS & ALGEBRA

In this Maths 'N' Movement activity students will create, represent and continue a variety of patterns with numbers and objects.

ACTIVITY

1. In teams of 4, students sit 5 metres from their bowl of connecting blocks.
2. Each team is shown the first 4 blocks of a pattern and take it in turns to race, using the given movement, to their bowl of blocks to get the next block required to repeat the pattern twice.
3. When all blocks have been collected the 1st student in the team records the pattern on their team's Pattern Recording Sheet.
4. Once recorded, the blocks are returned to each team's bowl and teams are shown a new pattern.
5. Students race again to gather blocks and the 2nd student records the pattern. This continues until every student has recorded 2 patterns.

Equipment Required:

- A collection of connecting blocks per team.
- A Patterns Recording Sheet and set of coloured pencils per team.

Notes:

Although it is suggested that students repeat the pattern twice they can repeat the pattern as many times as you choose. The number of colours in the pattern is also open to variation and is restricted only by the blocks you have available.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

PATTERNS & ALGEBRA RECORDING SHEET

Round 1	Colour the blocks to show the repeating pattern.
Student 1	
Student 2	
Student 3	
Student 4	

Round 2	Colour the blocks to show the repeating pattern.
Student 1	
Student 2	
Student 3	
Student 4	

LEVEL 3 Grade 2

DATA

In this Maths 'N' Movement activity students will gather and organise data, display data in lists, tables and picture graphs and interpret the results.

ACTIVITY

1. When students hear the whistle, they count how many times they can consecutively throw and catch a tennis ball (at least 20cms in the air) without dropping it.

2. When, after 30 seconds, students hear the whistle again they must stop throwing and catching and record their results on their Data Recording Sheet.

3. Students repeat throwing and catching once a day for 10 days and graph the results on their Data Recording Sheet.

Equipment Required:

- A tennis ball per student.
- A Data Recording Sheet and pencil per student.
- A whistle.
- A stop watch.

Notes:

Although it is suggested that this activity be completed each day for 2 weeks it could be completed one day per week over the term or every other day for 4 weeks depending on which other Maths 'N' Movement activities are being completed.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Addition - Uses a range of strategies for addition if they find the total of all their catches over the 10 days.

Subtraction - Uses a range of strategies for subtraction if they find the difference between their most and least catches or the number they needed to achieve 50 catches each day.

PD/H/PE Outcomes Covered:

Moving/FMS - Demonstrates maturing performance of basic throwing and catching.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

Games and Sport – Performs fundamental movement skills with balls.

DATA RECORDING SHEET 2

Throws and Catches Vs Days of Recording Data

Number of Consecutive Throws and Catches

45										
44										
43										
42										
41										
40										
39										
38										
37										
36										
35										
34										
33										
31										
30										
29										
28										
27										
26										
25										
24										
23										
22										
21										
20										
19										
18										
17										
16										
15										
14										
13										
12										
11										
10										
X	1	2	3	4	5	6	7	8	9	10

Days of Recording Data

LEVEL 3 Grade 2

LENGTH

In this Maths 'N' Movement activity students will measure, record, compare and estimate lengths and distances using uniform informal units, metres and centimetres.

ACTIVITY

1. Students take it in turns to throw a shot put and then measure, using text books laid end to end how far they were able to put the shot.

2. Each student records their put length and that of 15 of their classmates on their Length Recording Sheet A to find the shortest put, furthest put and average put lengths.

3. Students then remeasure their textbook length using a tape measure and record this and 15 of their classmates on their Length Recording Sheet B and see if the same results apply for the shortest, furthest and average put lengths.

Equipment Required:

- A shot put.
- At least 15 textbooks.
- A Length Recording Sheet and pencil per student.

Notes:

If you do not have access to a shot put a bottle filled with sand or other 500g item could be used for this activity. You may also wish to allow each student 3 attempts at putting the shot and take their furthest put as the one to be recorded.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Addition - Uses a range of strategies for addition if multiple student's throws are added together.

Subtraction - Uses a range of strategies for subtraction if the distance difference between students puts is found.

Probability - Recognises and describes the element of chance in everyday events if students predict the likelihood of reaching certain lengths.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and encourages class mates.

Moving/FMS - Demonstrates maturing performance of basic movement especially the difference between throwing and putting the shot.

Active Lifestyle – Participates in physical activity, recognising that it can be both enjoyable and important for health.

Games and Sport – Performs fundamental movement skills with equipment such as shot put.

LENGTH RECORDING SHEET A

	Students Put in Textbook Lengths															
15 Textbooks																
14.5 Textbooks																
14 Textbooks																
13.5 Textbooks																
13 Textbooks																
12.5 Textbooks																
12 Textbooks																
11.5 Textbooks																
11 Textbooks																
10.5 Textbooks																
10 Textbooks																
9.5 Textbooks																
9 Textbooks																
8.5 Textbooks																
8 Textbooks																
7.5 Textbooks																
7 Textbooks																
6.5 Textbooks																
6 Textbooks																
5.5 Textbooks																
5 Textbooks																
4.5 Textbooks																
4 Textbooks																
3.5 Textbooks																
3 Textbooks																
2.5 Textbooks																
2 Textbooks																
1.5 Textbooks																
1 Textbook																

You: _____ Student 1: _____ Student 2: _____ Student 3: _____ Student 4: _____ Student 5: _____ Student 6: _____ Student 7: _____ Student 8: _____ Student 9: _____ Student 10: _____ Student 11: _____ Student 12: _____ Student 13: _____ Student 14: _____ Student 15: _____

Shortest Put: _____ Longest Put: _____ Average Put Length: _____

LENGTH RECORDING SHEET B

	Students Put in Metres and Centimetres														
3m															
2m 90cm															
2m 80cm															
2m 70cm															
2m 60cm															
2m 50cm															
2m 40cm															
2m 30cm															
2m 20cm															
2m 10cm															
2m															
1m 90cm															
1m 80cm															
1m 70cm															
1m 60cm															
1m 50cm															
1m 40cm															
1m 30cm															
1m 20cm															
1m 10cm															
1m															
90cm															
80cm															
70cm															
60cm															
50cm															
40cm															
30cm															
20cm															

You: _____ Student 1: _____ Student 2: _____ Student 3: _____ Student 4: _____ Student 5: _____ Student 6: _____ Student 7: _____ Student 8: _____ Student 9: _____ Student 10: _____ Student 11: _____ Student 12: _____ Student 13: _____ Student 14: _____ Student 15: _____

Shortest Put: _____ **Longest Put:** _____ **Average Put Length:** _____

LEVEL 3 Grade 2

AREA

In this Maths 'N' Movement activity students will measure, record, compare and estimate areas using uniform informal units.

ACTIVITY

1. In teams or 4, students sit 5 metres from their container of 30 connecting blocks.

2. When an area is called the first student in each team races, using the given movement, to collect that many blocks and return them to their team.

3. As a team, students connect the blocks into the area that was called and record it in 3D on their team's dot paper Area Recording Sheet.

4. Once checked and various constructions shown the blocks are disconnected and returned to the block container. Remaining students take it in turn to race to collect their blocks.

Equipment Required:

- 30 connecting blocks in a container per team.
- An Area Recording Sheet and pencil per team.

Notes:

Once each student has had a turn at constructing the area given, students could be told the number of blocks in the length and width of the perimeter so they calculate the area and number of blocks required.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Multiplication & Division - Uses a range of mental strategies and concrete materials for multiplication & division to find the given area.

Data - Gathers and organises data into tables and interprets the results.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

AREA RECORDING SHEET

Blocks	Area For Your Construction

LEVEL 3 Grade 2

VOLUME & CAPACITY

In this Maths 'N' Movement activity students will measure, record, compare and estimate volumes and capacities using uniform informal units.

ACTIVITY

1. In teams of 4 or 5, students predict the capacity order of their team's 4 or 5 containers from smallest to largest.

2. The first student in each team races, using the given movement, to their bucket of water 5 metres away and counts how many cups of water it takes to fill their container.

3. The water is returned to the bucket, the students race back to their team and record the capacity of their container and remaining students take it in turn to race and fill their container with cups of water.

4. When all students in the team have measured and recorded their container's capacity the team check to see if their predicted order was correct.

Equipment Required:

- A container per student.
- A bucket of water and cup per team.
- A Volume & Capacity Recording Sheet and pencil per team.

Notes:

As an alternative to water you may wish to use sand to fill the containers or use both water and sand (sand first) to see if the capacity is the same for different substances.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses concrete materials to support conclusions.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Addition - Uses a range of strategies for addition to find the capacity of each container and the capacity of all the containers the team filled.

Data - Gathers and organises data into tables and interprets the results.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and class mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Problem Solving - Draws on past experiences to solve familiar problems.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

VOLUME & CAPACITY RECORDING SHEET

	Predicted Container Capacity Order					
Student 1						
Student 2						
Student 3						
Student 4						
Student 5						

Smallest → Largest

	Predicted Capacity in Cups	Actual Capacity in Cups
Student 1		
Student 2		
Student 3		
Student 4		
Student 5		

	Actual container capacity order				
Results					

Smallest → Largest

LEVEL 3 Grade 2

MASS

In this Maths 'N' Movement activity students will measure and compare the mass of objects using kilograms.

ACTIVITY

1. Students stand in 1 line at least 5 metres from the Mass Scale Cards with 5 hula hoops equally spaced over the distance between the cards and them.

2. The first student in line leaps from hoop to hoop towards the Mass Scale Cards. As soon as one student leaves a hoop the next student in line can leap into it.

3. When each student reaches the 5th hoop they are shown 2 weight cards and they must lightly touch the heavier of the 2 weights.

4. Students then step out of the hoop and race back to the end of the line so that they can have another turn but this time they touch the lighter of the 2 weights shown.

Equipment Required:

- A set of Mass Scale Cards.
- 5 hula hoops.

Notes:

Once students can find the heavier and lighter of 2 masses you may wish to add in additional masses and they must first add the masses together before working out the heavier or lighter mass.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Addition - Uses a range of strategies for addition if 2 weights (1kg and 4kg) are compared to 1 weight (8kg).

PD/H/PE Outcomes Covered:

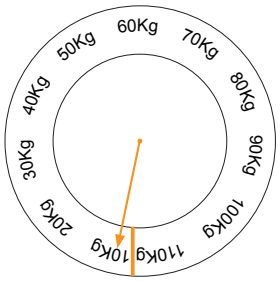
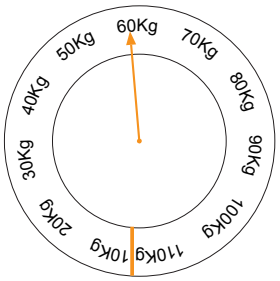
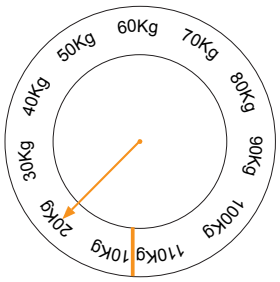
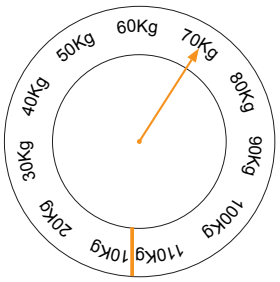
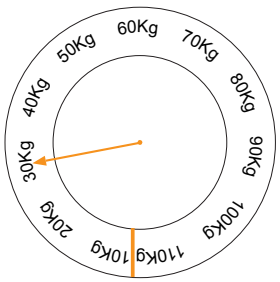
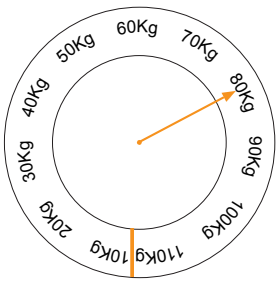
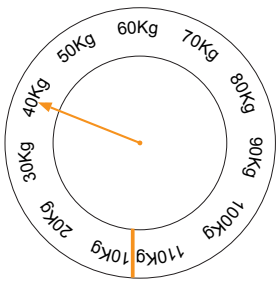
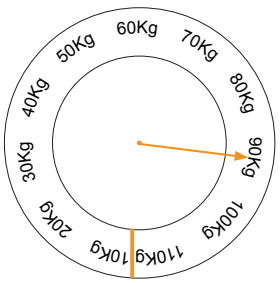
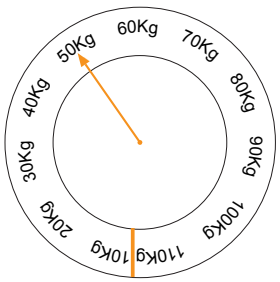
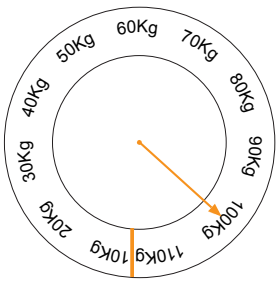
Communicating - Communicates appropriately in a variety of ways.

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

MASS SCALE CARDS

10kg		60KG	
20kg		70KG	
30kg		80KG	
40kg		90KG	
50kg		100KG	

LEVEL 3 Grade 2

TIME

In this Maths 'N' Movement activity students will describe, compare and order durations of events in half and quarter hour time.

ACTIVITY

1. Students stand in 1 line on the start line and are shown the finish line 10 metres away.

2. When they hear the whistle each student sprint runs in turn the 10 metres to the finish line.

3. When they reach the finish they are told how many seconds it took for them to cover the 10 metres.

4. Students record their time in seconds and that of 5 of their classmates on their Time Recording Sheet.

5. When all students have run the class can find the fastest and slowest times, the difference between these times and the total time the class spent running.

Equipment Required:

- A stop watch.
- A whistle.
- A 10 metre straight track.
- A Time Recording Sheet and pencil per student.

Notes:

Students will need a method to return to the group without crossing the path of sprinting students to avoid collisions. If desired this activity could be repeated with hopping, skipping or leaping and the times compared with sprint running.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Whole Number - Counts, orders, reads and represents 2 and 3 digit numbers.

Addition - Uses a range of strategies and informal recording methods for addition if the class' running time is found.

Subtraction - Uses a range of strategies and informal recording methods for subtraction if the difference between runners is found.

Data - Gathers and organises data into tables and interprets the results.

PD/H/PE Outcomes Covered:

Communicating - Communicates appropriately in a variety of ways.

Interacting - Develops positive relationships with peers and class mates.

Moving/FMS - Demonstrates maturing performance of sprint running.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

TIME RECORDING SHEET

Student	10m Sprint Run	10m Hopping	10 m Skipping
You: _____	_____ seconds	_____ seconds	_____ seconds
Student 1: _____	_____ seconds	_____ seconds	_____ seconds
Student 2: _____	_____ seconds	_____ seconds	_____ seconds
Student 3: _____	_____ seconds	_____ seconds	_____ seconds
Student 4: _____	_____ seconds	_____ seconds	_____ seconds
Student 5: _____	_____ seconds	_____ seconds	_____ seconds

LEVEL 3 Grade 2

3D SPACE

In this Maths 'N' Movement activity students will sort, describe, represent and recognise familiar 3 Dimensional objects, including cones, cubes, cylinders, spheres and prisms.

ACTIVITY

1. In teams of 4, students sit 5 metres from their collection of items - balls, tissue boxes, cylindrical drink bottles and large dice.

2. Each student in the team races, using the given movement, to their collection of items and when they hear the whistle they attempt to stack their items before the whistle blows 20 seconds later.

3. Students who are able to stack a collection of items are able to write their name on the team's 3D Space Recording Sheet.

4. When all team members have attempted to stack one collection of items, teams swap items and repeat the activity until each student has attempted to stack all 4 collections of items.

Equipment Required:

- Tennis balls, tissue boxes, drink bottles and large dice.
- A stop watch and whistle.
- A 3D Space Recording Sheet and pencil per team.

Notes:

If you have access to multiple solid cones with sealed bases or triangular prisms these could also be used for this activity but as these are a fairly rare item they were not included.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

Data - Gathers and organises data into tables and interprets the results.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on the movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

3D SPACE RECORDING SHEET

Shape	Picture of the Shape	Stacked By - List Students
Cube		
Sphere		
Rectangular Prism		
Cylinder		

LEVEL 3 Grade 2

2D SPACE

In this Maths 'N' Movement activity students will represent, describe and explore 2 Dimensional shapes, including quadrilaterals, pentagons, hexagons and octagons.

ACTIVITY

1. In teams of 4, students stand at least 5 meters from their 2D Space Recording Sheet.

2. When a 2D shape is called the first student in each team races, using the given movement, to their 2D Space Recording Sheet and attempts to draw that shape.

3. When finished the student race back to their team and remaining students take it in turn to race and record shapes.

4. This continues until all students have had a chance to draw at least 2 x 2D shapes.

Equipment Required:

- A 2D Space Recording Sheet and pencil per team.

Notes:

For this activity it is expected that students will draw regular hexagons and octagons rather than merely 6 or 8 sided shapes. As an alternative to the Recording Sheets students could race to the rest of the class to see.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses pictorial representations to support conclusions.

PD/H/PE Outcomes Covered:

Interacting - Develops positive relationships with peers and team mates.

Moving/FMS - Demonstrates maturing performance of basic movement depending on movement selected.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

2D SPACE RECORDING SHEET

Student	Shape Drawing	Name of Shape	Number of Sides

LEVEL 3 Grade 2

POSITION

In this Maths 'N' Movement activity students will represent and describe the position of objects in everyday situations and on maps.

ACTIVITY

1. Each student creates on their Position Recording Sheet a set of 10 directions within a specified area of the school.

2. The directions will be used by another student to end up at a specific location such as - start at the red bin, hop 7 times towards the hall, turn to the right 90^0, leap 4 times to the classroom and end up at the eating bench. The last item which lists the final location is not included in the direction but should be listed on the back of the Position Recording Sheet.

3. Once student's directions have been checked they can find a partner and swap their Position Recording Sheets and attempt to reach their partner's hidden location.

Equipment Required:

- A Position Recording Sheet and a pencil per student.

Notes:

This activity may take 2 lessons because in the first lesson students would be walking out and plotting their own map while in the second they would follow their partner's map to uncover the hidden location. It also gives you time to check the directions between lessons.

Additional Maths Outcomes Covered:

Working Mathematically - Describes mathematical situations using everyday language, actions, materials and informal recordings.

Working Mathematically – Uses objects and actions to explore mathematical problems.

Working Mathematically – Uses concrete materials and pictorial representations to support conclusions.

PD/H/PE Outcomes Covered:

Communicating - Communicates appropriately in a variety of ways.

Decision Making – Recalls past experiences in making decisions

Interacting - Develops positive relationships with partner.

Active Lifestyle – Participates in physical activity recognising that it can be both enjoyable and important for health.

Safe Living – Recognises that their safety depends on their environment and their behavior when moving around the school.

POSITION RECORDING SHEET

Start Location: _____

Instructions:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Final Destination (to be filled in by your partner): _____