

TERM 2 OVERVIEW YEAR 1 – Maths

Term 2 Book – Man on the Moon

Topic(s) - Addition/subtraction, Shape, Number: Place Value		Guide Time = 6weeks
Assessment:	White Rose end of unit assessments Teacher judgements Fortnightly arithmetic tests	Very Important Points (VIPs):
Links to prior learning (sequencing) and canon book	<p><u>Addition and Subtraction</u> In EYFS the children will have learnt to solve simple addition and subtraction problems using objects.</p> <p><u>Shape</u> In EYFS the children will have learnt 2D and 3D shape names.</p> <p><u>Place Value</u> In EYFS the children will have learnt to count reliably with numbers from 1 – 20, place them in order and say which number is one more or one less than a given number. The children have been introduced to place value within 10 during half term 1.</p>	<p><u>Addition and subtraction</u></p> <ul style="list-style-type: none"> - When you add or subtract zero, the total stays the same. - When you add two numbers, they equal a bigger number. - When you subtract a number from a total, it gets smaller. - Number bonds show how numbers can be partitioned or combined. - There are different ways you can make the same number. - Addition can be done in any order, subtraction cannot. <p><u>Shape</u></p> <ul style="list-style-type: none"> - Any shape that can be laid flat on a piece of paper or any mathematical plane is a 2D shape. - 3D shapes are solid objects that have three dimensions. These dimensions are length, width, and height. - Circle, square, rectangle, triangle, pentagon and hexagon are common 2D shapes. - Cube, cuboid, sphere, cylinder and cone are common 3D shapes.
Links to other learning (cross fertilisation)	<p>Links to PE will be made through active maths activities and/or using counting within warm ups (20 star jumps, 10 lunges etc) and games (keeping track/score).</p> <p>Links to science when handling data and measuring values.</p> <p>Children will be taught ordering and sequencing skills as well as ordinal numbers in maths. They will then apply these skills in science (sequencing life cycles) and reading (sequencing stories).</p>	<p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> - Things don't need to be identical to be grouped together. They just need something in common. - To count objects accurately you should line them up and count one at a time. The last number you count is the total amount. - One object can be represented by another object or a picture. - Amounts can be represented as numerals, words or objects.

Links to future learning	<p>The skills taught this half term will be applied and built upon throughout the year. Children will be introduced to bigger numbers as the year progresses until they are ready for Year 2 and able to use any number within 100.</p>	<p>Fat Questions:</p> <p><u>Addition and subtraction</u></p> <ul style="list-style-type: none"> - Can you have two different things on either side of an equals sign? - Why do we need to learn to add and subtract? <p><u>Shape</u></p> <ul style="list-style-type: none"> - What is an irregular shape? - What is a regular shape? - Why are shapes important? - What shapes can you see in your classroom / school / local environment? - What shapes might you see in space? <p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> - How many aliens does Bob meet while he's on the moon? - What is the difference between the amount of aliens Bob meets and the amount of tourist spaceships that come to the moon? - Do different countries count in the same way that we do?
<p>Character/Wider Development ('50 things', cultural capital, skills)</p>	<p>Relate and use this knowledge and understanding in real-life contexts in and outside of school and make these relevant and purposeful links when: sorting and grouping objects during learning and play; identifying numbers in the environment; counting during play or exercise; handling money in real life situations, for example shopping or buying tickets; and if weighing and measuring, for example when baking or growing plants.</p> <p><u>Thematic Questions:</u></p> <p><u>The World Beyond Us:</u> Do you think it's possible to know how many people there are in the world? What shapes might you see in space?</p> <p><u>The World Around Us:</u> How do you use your maths skills when you go into Pontrfract? There are numbers everywhere. Can you think of some examples of where you might see numbers when out and about?</p> <p><u>Modern Britain:</u> How does maths help people in their jobs and daily lives? What do we have to help us now that people did not have 100 years ago?</p> <p><u>Healthy Bodies & Healthy Minds:</u> How can we use maths when keeping fit? What can we do if we are finding maths hard or it is making us feel sad/angry?</p> <p><u>Culture:</u> Does everyone from around the world count in the same language and use the same numbers? Do you think it would be better if we did? Why?</p> <p><u>Technology in Action:</u> How is maths used in computer games? Can you think of a game where you need to count or add? Do any computer games add or take away points or lives?</p>	

OVERVIEW OF TEACHING SEQUENCE

Key Facts/ Learning	Learning Focus or Key Question	Learning Outcomes (NC)	Key Words/ Vocabulary	Greater Depth/SEND	Misconceptions	Activities and Resources
Addition and Subtraction (Week 1 – 2)	Addition – adding more Finding a part Subtraction – taking away, how many left? Crossing out. Subtraction - taking away, how many left? Introducing the subtraction symbol. Subtraction – finding a part, breaking apart. Fact families – the 8 facts.	Represent and use number bonds and related subtraction facts within 10. Read, write and interpret mathematical statements involving addition, subtraction and equals signs. Add and subtract one digit numbers to 10, including zero. Solve one step problems that involve addition and subtraction, using concrete objects and	whole amount part symbol add plus more number bonds fact families equals altogether	GD: Children are introduced to bigger numbers when applicable. But it is important that the GD focus is on mastery of the skills rather than moving onto the next stage of learning quicker. Children are introduced to problem solving and reasoning questions which require sentence responses. SEND: Activities are made more 'concrete' when appropriate and additional resources are used to support visual and kinaesthetic learning.	If students do not master basic addition and subtraction, they will struggle with most maths and calculations throughout their lives. It is important to recap learning from the EYFS and build upon this. It is crucial that misconceptions are identified and corrected as soon as possible (before they become 'habit'). Part-whole model misconceptions when laid out differently. Confusion if = does not come at end of calculation. Incorrect answers though not counting and checking properly Subtraction using a number line:	See Y1 folder for slides and resources for 8 lessons. Links to resources and folders: https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Autumn2019-20/Year-1-Autumn-Block-2-Number-Addition-and-Subtraction.pdf Trust Shared folder – Year 1 Classroom Secrets folder Third space folder White Rose Maths folder

	Subtraction – counting back.	pictorial representations and missing number problems.		<p>Children focus on numbers 1-5 where appropriate and given support when using numbers to 10.</p> <p>Children complete a majority of fluency style questions and are introduced to problem solving as an oral group activity. Adults model how to verbally use the word ‘because’.</p>	<p>Misconception Alert!</p>  <p>Remember not to include the starting number in your steps backwards!</p> <p>Counting up when subtracting or down when adding.</p>	
Shape (Week 3)	<p>Recognise and name 3-D shapes.</p> <p>Sort 3-D shapes.</p> <p>Recognise and name 2-D shapes.</p> <p>Sort 2-D shapes.</p> <p>Patterns with 3-D and 2-D shapes.</p>	<p>Recognise and name common 2-D shapes, including: (for example, rectangle (including square), circles and triangles).</p> <p>Recognise and name common 3-D shapes including: (for example, cuboids (including cubes), pyramids and spheres).</p>	<p>Pyramid Cube Cylinder Cuboid Cone Sphere Circle Square Rectangle Triangle Rhombus Hexagon Pentagon Edges Vertices Surface/faces 2D shape 3D shape Regular Irregular</p>	<p>GD: Children introduced to describing the properties of 2D and 3D shapes.</p> <p>Children are introduced to problem solving and reasoning questions which require sentence responses.</p> <p>Children are taught how to ‘prove it’ and use the word ‘because’.</p> <p>SEND:</p>	<p>There may be some confusion between shapes with a larger number of sides e.g. hexagon / pentagon.</p> <p>When describing 3D shapes there may be some confusion between edges and faces.</p> <p>There may be some confusion between what makes a 2D shape and what makes a 3D shape.</p>	<p>See Y1 folder for slides and resources for 8 lessons.</p> <p>Links to resources and folders: https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Autumn2019-20/Year-1-Autumn-Block-3-Geometry-Shape.pdf</p> <p>Trust Shared folder – Year 1 Classroom Secrets folder Third space folder White Rose Maths folder</p>

				Activities are made more 'concrete' when appropriate and additional resources are used to support visual and kinaesthetic learning.		
Place Value (Week 4-5)	<p>Count forwards and backwards and write numbers to 20 in numerals and words</p> <p>Number from 11 to 20.</p> <p>Tens and ones.</p> <p>Count one more and one less</p> <p>Compare numbers</p> <p>Order groups of objects</p> <p>Order numbers</p>	<p>Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number.</p> <p>Count, read and write numbers to 20 in numerals and words.</p> <p>Given a number, identify one more or one less.</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of:</p>	<p>number digit equal to more than less than fewer most least order sequence compare</p>	<p>GD: Children are introduced to bigger numbers when applicable. But it is important that the GD focus is on mastery of the skills rather than moving onto the next stage of learning quicker.</p> <p>Children are introduced to problem solving and reasoning questions which require sentence responses.</p> <p>Children are taught how to 'prove it' and use the word 'because'.</p> <p>SEND: Pre-teaching is used as an intervention to build upon EYFS skills in</p>	<p>If students do not master basic place value, they will struggle with most maths and calculations throughout their lives. It is important to recap learning from the EYFS and build upon this. It is crucial that misconceptions are identified and corrected as soon as possible (before they become 'habit').</p> <p>For example:</p> <p>Incorrect rote counting – missing numbers.</p> <p>Miscounting objects – not lining up, missing objects out, incorrect use of 1-1 correspondence.</p> <p>Incorrect number formation.</p> <p>Confusion between < and ></p>	<p>See Y1 folder for slides and resources for 8 lessons.</p> <p>Links to resources and folders: https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Autumn2019-20/Year-1-Autumn-Block-4-Number-Place-Value.pdf</p> <p>Trust Shared folder – Year 1 Classroom Secrets folder Third space folder White Rose Maths folder</p>

		<p>equal to, more than, less than (fewer), most, least.</p>		<p>preparation for Year 1 content.</p> <p>Activities are made more 'concrete' when appropriate and additional resources are used to support visual and kinaesthetic learning.</p> <p>Children focus on numbers 1-5 where appropriate and given support when using numbers to 10.</p> <p>Children complete a majority of fluency style questions and are introduced to problem solving as an oral group activity. Adults model how to verbally use the word 'because'.</p>		
<p>Consolidation (Week 6-7)</p>						

Context (big picture learning)

Mathematics is an important, creative discipline that helps us to understand and change the world. We want all of our children within the Pontefract Academies Trust to experience all that mathematics has to offer and to develop a sense of curiosity about the subject with a clear understanding. When they leave us we want them to continue their love of maths and use it continuously and positively in their future lives.

We foster a positive 'growth mind-set' attitude and we promote the fact that we believe that all children can achieve in mathematics. We teach for secure and deep understanding of mathematical concepts through manageable, bespoke steps and cross fertilize at every opportunity. VIPs (Very Important Points) are implemented in every lesson to ensure knowledge and skills are revisited and retained over time.

We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated reasoning and problem solving activities. At our school, the majority of children will be taught the content from their year group only. They will spend time becoming true masters of content, applying and being creative with new knowledge in multiple ways.

Place Value teaches the children the meaning of numbers. Children work towards understanding that the position of a digit within a number, shows its value. They also work towards partitioning numbers, firstly within 100 and then beyond as the children progress through Key Stage Two. Children need to have a thorough understanding of comparing and sequencing numbers that they are confident with (within 10) so they are able to apply these skills as they learn to tackle bigger numbers. Children need to be introduced to the basic concept of addition and subtraction and the related maths symbols. They will then apply these skills across future units and cross-fertilise these skills in other subjects. As they grow up they will use these skills in their everyday life. For example: when shopping and handling money and wages; when writing cheques; working out test scores; measuring and weighing within the workplace; and lots more.

Resources

Trust shares > Primaries > Departments > KS1 > Planning Cycle B > Autumn 2 > Maths > Year 1

Links to resource folders:

[White Rose](#)

[Classroom Secrets](#)

[Third Space](#)

[Year 1 skeleton slides](#)