**Spring Term Overview Year 1 – Maths**

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| **Spring Term Book – One Day On Our Blue Planet** | | |
| **Topic(s) - Addition/subtraction Number: Place Value** | | **Guide Time = 6 weeks** |
| **Assessment:** | White Rose end of unit assessments  Teacher judgements  Weekly/fortnightly arithmetic tests | **Very Important Points (VIPs):**  **Addition and subtraction**   * 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.   **Number: Place Value**     * Group objects to count accurately. * 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 respresented as numerals, words or objects. * Use digits in the correct tens and ones place.   **Fat Questions:**  Which method do you prefer and why?  When should you use a systematic approach? |
| **Links to prior learning (sequencing) and canon book** | **Addition and Subtraction**  In EYFS the children will have learnt to solve simple addition and subtraction problems using objects and a numberline. They have knowledge of number bonds to 10.  **Place Value**  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 and numbers to 20 in term 2. |
| **Links to other learning (cross fertilisation)** | 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). |
| **Links to future learning** | 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. |
| **Character/Wider Development ('50 things', cultural capital, skills)** | Relate and use this knowledge and understanding in real-life contexts in and outside of school. Make 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.  Thematic Questions:  The World Beyond Us:  Do you think it’s possible to know how many people there are in the world?  The World Around Us:  How do you use your maths skills when you go into Pontefract? There are numbers everywhere. Can you think of some examples of where you might see numbers when out and about?  Modern Britain:  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?  Healthy Bodies & Healthy Minds:  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?  Culture:  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?  Technology in Action: 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? |

**OVERVIEW OF TEACHING SEQUENCE**

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| **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 1-3) | Week 1  Addition – Add by counting on within 20 x2  Add ones using number bonds x2  Find and make number bonds to 20.  Week 2  Add by making 10 x2  Subtract not crossing 10 x2  Subtraction crossing 10 (counting back)  Week 3  Subtraction crossing 10 x2  Related facts  Compare number sentences  **End of block test** | Represent and use number bonds within 20.  Read, write and interpret mathematical statements involving addition, subtraction and equals signs.  Add numbers to 20, including zero.  Solve one step problems that involve addition and subtraction using concrete objects and pictorial representations. | 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.  Children focus on numbers 1-10 where appropriate and given support when using numbers to 10.  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’. | 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:  Counting up when subtracting or down when adding. | See Y1 folder for slides and resources for 14 lessons.  Links to resources and folders:  Trust Shared folder – Year 1  Classroom Secrets folder  White Rose Maths folder |
| **Place Value**  (Week 4-5) | Week 4  Counting to 50 by making 10  Numbers to 50  Counting forwards and backwards within 50  Tens and ones  Represent numbers to 50  Week 5  One more, one less x2  Compare objects within 50  Compare numbers within 50  Order numbers within 50  To count in twos  To count in fives | Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number.  Count, read and write numbers to 20 in numerals and words.  Given a number, identify one more or one less.  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. | number  digit  equal to  more than  less than  fewer  most  least  order  sequence  compare  tens  ones | 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.  Children are taught how to ‘prove it’ and use the word ‘because’.  SEND:  Pre-teaching is used as an intervention to build upon EYFS skills in preparation for Year 1 content.  Activities are made more ‘concrete’ when appropriate and additional resources are used to support visual and kinaesthetic learning.  Children focus on numbers 1-5 where appropriate and given support when using numbers to 10.  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’. | If pupils 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’).  For example:  Incorrect rote counting – missing numbers.  Miscounting objects – not lining up, missing objects out, incorrect use of 1-1 correspondence.  Incorrect number formation.  Confusion between < and >  Correct pronunciation of teen numbers and tens  Fourteen Forty | See Y1 folder for slides and resources for 14 lessons.  Links to resources and folders:  Trust Shared folder – Year 1  Classroom Secrets folder  White Rose Maths folder |
| Consolidation week  Use this week at any point to consolidate learning depending on the needs of the class. |  |  |  |  |  |  |
| **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. | | | | | | |