**Age related outcomes year 2-Maths**

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| **Outcomes** | **Steps to achieve ARE (Mastery)** | **Steps to achieve GD** |
| **To have a good knowledge of the number system up to 100**  **Week 1+2** | * **Count in 2, 5, 10, 3 forwards/backwards from different starting points** * **Compare and order numbers using < > =** * **Read/write numbers in words and numerals** * **Recognise the value of each digit in a two-digit number and represent them in different ways** | * **To reason about numbers and identify patterns and relationships (e.g. will the addition of even numbers always give even answers? If I count in 5’s from 0, will I say 101? If I start at 9 and count in tens, will I say 39?** * **Answer questions relating to multiples of 2, 5, 10 and 3** * **To make the largest and then the smallest number from a set of digits** * **Can the children explore and justify their ideas?** |
| **To be able to add and subtract accurately and solve addition and subtraction problems**  **Week 3+4** | * **Recall and use addition and subtraction facts to 20** * **Use addition and subtraction facts to derive and use related facts to 100** * **Add 2 two-digit numbers together within 100 and use estimation to check the answer is reasonable** * **Subtract a two-digit number from another (no regrouping)** * **Recognise the inverse relationship between addition and subtraction and use this to check answers and spot missing numbers** * **Solve problems which involve addition and subtraction in a range of contexts** | * **Reasoning about addition (e.g. can the children reason that the sum of two odd numbers will always be odd? The sum of three odd numbers will always be odd)** * **Working out mental calculations where regrouping is required (35+48=?; 52-27=?)** * **Write all the addition and subtraction sentence for given numbers (e.g. 24, 6, 30)** * **Solve more complex missing number sentences and sequences (14+?-3=17; 14+?=15+27)** * **Solve word problems that involve more than one step** * **Can write word problems to represent an addition or subtraction number sentence** * **Can identify different ways of representing a total amount** |
| **To understand the operations of multiplication and division and solve problems related to multiplication and division**  **Week 5+6** | * **Recall and use multiplication facts for 2, 5, 10** * **Understand commutativity** * **Write mathematical statements for multiplication and division calculations** * **Solve problems which involve multiplication and division in a range of contexts** | * **To understand the relationship between repeated addition and multiplication and repeated subtraction and division (e.g. 10+10+10+5+5=3x10+2x5=4x10)** * **Determine remainders given known facts ( if 15÷3=3; 16÷3=3 r1; making pairs of sock from 15 will mean there will be one sock left)** * **Solve more complex problems and representing these in different ways (35p in a purse and all the coins are either 5p or 10p, what coins could I have? Can you represent this with the least number of coins?** |
| **To understand fractions as being part of a whole shape or number and be able to identify and compare these**  **Week 7+8** | * **Understand that a fraction is a part of a whole** * **Recognise and write fractions** * **Find fractions of shapes and numbers** * **Compare and order fractions** | * **Can find and compare fractions of amounts (e.g. ¼ of £20=£5 and ½ of £8=£4 so ¼ of £20 is > than ½ of £8** * **Can recognise equivalent fractions (e.g 2/4=1/2, 2/8=1/4** |
| **To understand and use standard units to measure and solve problems related to length/mass/capacity and time**  **Week 9+10** | * **Know and use standard units to measure length/mass/capacity and time** * **Read scales in divisions of 1,2,5,10** * **Compare and order using < > =** * **Recognise that different coins can be used to make different amounts using correct notation** * **Tell and write the time on a clock including half past, quarter to and quarter past** * **Know the number of minutes in an hour and hours in a day** | * **Can read time on a clock to the nearest 5 minutes** * **Can read scales in divisions of ones, twos, fives, tens in a practical situation where not all the numbers on the scale are given** |
| **To understand/describe/compare shapes**  **Week 11** | * **Identify and describe the properties of 2d and 3d shapes** * **Identify 2d shapes on 3d shapes** * **Sort shapes according to different properties** | * **Can describe similarities and differences of shape properties (e.g. different 2d shapes that only have I line of symmetry; what is the same and different about different shapes** |
| **To be able to describe position and direction**  **Week 12** | * **Describe position and direction using mathematical vocabulary including quarter, three quarter and half turns and clockwise and anti-clockwise** | * **See maths hub documentation.** |
| **To be able to gather, represent and answer questions about data.**  **Week 12** | * **Gather data and construct simple charts and graphs** * **Ask and answer questions about the data** | * **See Maths hub documentation.** |