**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?**
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| **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**
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| **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?**
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| **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**
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| **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**
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| **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**
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| **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.**
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| **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.**
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