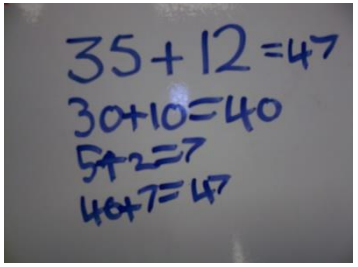
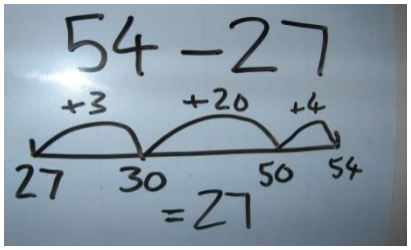
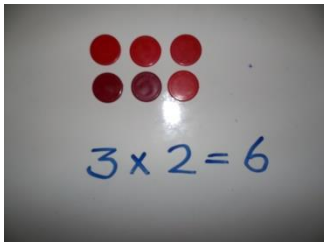
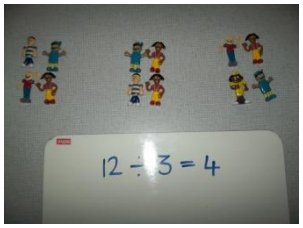
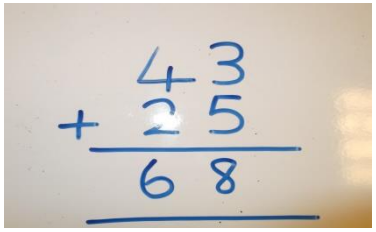
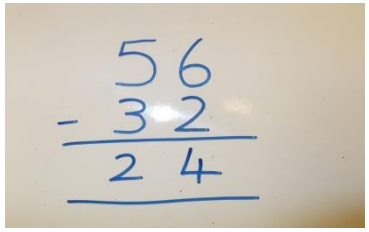
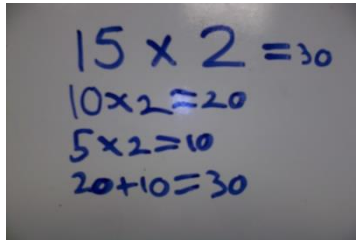
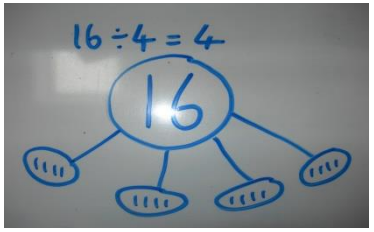
MELLING PRIMARY SCHOOL

Year 2 Mathematics Learning Objectives	
PLACE VALUE	1. Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward.
	2. Recognise the place value of each digit in a two-digit number (tens, ones).
	3. Identify, represent and estimate numbers using different representations, including the number line.
	4. Compare and order numbers from 0 up to 100; use <, > and = signs.
	5. Read and write numbers to at least 100 in numerals and in words.
ADDITION AND SUBTRACTION	6. Solve problems with addition and subtraction: using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods.
	7. Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
	8. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s or 10s; two 2-digit numbers; adding three 1-digit numbers.
	9. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
	10. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.
MULTIPLICATION AND DIVISION	11. Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
	12. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.
	13. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
	14. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
FRACTIONS	15. Recognise/find/name/write fractions ⅓, ¼, 2/4, ¾ of a length, shape, set of objects or quantity.
	16. Write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of 2/4 and ½.
MEASURE	17. Choose/use appropriate standard units to estimate/measure length/height (m/cm); mass (kg/g); temp (°C); cap (litres/ml) to nearest unit, using rulers, scales, thermometers and measuring vessels.
	18. Compare and order lengths, mass, volume/capacity and record the results using >, < and = .
	19. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money.
	20. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
	21. Compare and sequence intervals of time. Know the number of minutes in an hour and the number of hours in a day.
	22. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
GEOMETRY	23. Identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.
	24. Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.
	25. Identify 2D shapes on the surface of 3D shapes, e.g. circle on a cylinder; a triangle on a pyramid.
	26. Compare and sort common 2D and 3D shapes and everyday objects.
	27. Order and arrange combinations of mathematical objects in patterns and sequences.
	28. Use mathematical vocabulary to describe position, direction & movement including movement in a straight line and distinguishing rotation as a turn & in terms of right angles for ¼, ½, & ¾ turns (clock/anti-clockwise).
STATISTICS	29. Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
	30. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity; ask and answer questions about totalling and comparing categorical data.

Calculation Methods to be taught to Y2 children during the year

Year 2 (emerging)			
Addition	**Subtraction**	**Multiplication**	**Division**
Partitioning up to 50 – no bridging 	Subtract by counting on with a number line 	Using arrays up to 50 	Using concrete objects to divide up to 50 
Year 2 (expected)			
Addition	**Subtraction**	**Multiplication**	**Division**
Adding 2 2-digit numbers using column method with no 'carrying'. 	Column subtraction of 2 2-digit numbers with no 'exchanging'. 	Partitioning x by 2, 3 and 5 up to 100 	Informal method of sharing up to 100 

Example of Weekly Maths Skills covered in Year 2

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Geometry	
1. What is the missing number? 0 3 6 9 12 ☐	2:1	11. 2 x 8 =	2:11	21. Write <, > or = to make the statement correct.   Mass of dog ☐ Mass of horse	2:18
2. Circle the **2s** that have a value of **20.** 12 28 32 21	2:2	12. Which are the even numbers? 5 10 15 20	2:11		
3. Draw an arrow to label 17. 15 20	2:3	13. What symbol is missing? 24 ☐ 3 = 8	2:12	22. Tick (✓) the shape that has a **vertical line of symmetry**. 	2:23
4. Put these in order, smallest first. 6 26 62 2	2:4	14. What symbol is missing? 10 x 4 ☐ 40	2:12		
5. Write this number in words. 27	2:5	15. Is this true? Write 'yes' or 'no'. 6 x 5 = 5 x 6	2:13	23. Draw the next shape in this pattern: 	2:27
6. There are 12 people on a bus. 13 more get on. How many people now?	2:6	16. Bread rolls are sold in packs of 4. If I buy 3 packs, how many rolls do I get?	2:14		
7. Use 8 + 12 = 20 to answer: 16 + ☐ = 40	2:7	17. 10 apples are shared. How many people are there if each person gets 2?	2:14	24. A group of people were asked what their favourite colour was. Complete the tally chart:	2:29
8. 27 + 32 =	2:8	18. What fraction is shaded? 	2:15		
9. Tick (✓) if true: 13 + 9 = 9 + 13 ☐ 21 - 4 = 4 - 21 ☐	2:9	19. Circle **one third** of the strawberries. 	2:15		
10. Use 79 - 36 = 43 to help find: 43 + 36 = ☐	2:10	20. Complete the **equivalent** fractions. $\frac{1}{2} = \frac{\square}{4}$	2:16	25. How many people were asked their favourite colour **in total**?	2:30
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)		Y (10-19)	G (20-25)

Colour	Tally	Total
red	𝍸 |||	
blue		6

Example of a multiplication test used in Y2

Name:_____

2 x table test a

1) 5 x 2 =

2) 6 x 2 =

3) 11 x 2 =

4) 2 x 7 =

5) 10 x 2 =

6) 2 x 12 =

7) 3 x 2 =

8) 8 x 2 =

9) 4 x 2 =

10) 2 x 1 =

Score:_____

If children are going to become confident with all forms of maths, they **MUST** develop an instant recall of all multiplication and division facts. This means being able to answer random multiplication questions within a few seconds such as 8 x 2 =16. This is not the same as being able to count in 2s.

They will need to practice these types of questions frequently at home to build up their instant recall of these facts. The online programme Times Table Rockstars will help with this.

Y2 Number Bonds and Multiplication Tables Testing

In school, Y2 children are tested at least twice a week on their multiplication and division tables. They are expected to get all 10 questions correct in one minute on three separate occasions before moving onto their next multiplication/division test. Marked tests are sent home each week by the class teacher which will help parents to see the progress their child is making and which multiplication tables need further practice. At the start of Year 2, children are re-tested on their recall of number bonds, which they should have a good knowledge of from previous years. They then progress onto their other multiplication tables in the following order:

10 x table (multiplication facts only)

2 x table (multiplication facts only)

5 x table (multiplication facts only)

10 x table (multiplication and division facts)

2 x table (multiplication and division facts)

5 x table (multiplication and division facts)

Useful websites for Maths

The school subscribes to the following interactive maths programs. Children have their own login details so they are able to access both of these programs at home as well as in school.

Mathletics https://login.mathletics.com/

Times Table Rockstars https://ttrockstars.com/

Other useful websites for practising tables are :

https://www.timestables.co.uk/multiplication-tables-check/

https://www.topmarks.co.uk/maths-games/hit-the-button

SATS

During their summer term in Y2, children take Standard Assessment Tests in Maths (SATS). A useful website which may help them prepare for these tests is on the link below.

https://www.bbc.co.uk/bitesize/subjects/zjxhfg8