Key Learning Objectives

Using and Applying Mathematics

- I can choose the number operations (+, -, x, ÷) that I need to solve a problem and the best way of working out the answer e.g. in my head, by jotting things down, with pencil and paper.
- I can solve problems that have one or more steps.
- I can explain how I worked out a problem and check that my answer is sensible.
- I can use a calculator to work out more complex problems and know if the answer displayed is reasonable.

Counting and Understanding Numbers/Knowing and Using Number Facts

- I understand positive and negative numbers and can put them in order
- I can use the symbols for greater than > and less than <
- I can write decimals relating to money and measurement e.g. £1.25 or 1.25m
- I can match up equivalent decimals and fractions
- I can order mixed fractions e.g. 2 ½, 4 ¼, 5¾
- I know my times-tables to 10 x 10 and the division facts linked to them e.g. 6 x 9 = 54, 54 ÷ 9 = 6, 54 ÷ 6 = 9.
- I know pairs of fractions which total 1.

Calculating

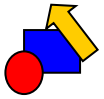
- I can add and subtract two-digit numbers in my head e.g. 34 + 27, 93 - 42
- I can add and subtract numbers, including money, with three digits using a written method
- I can multiply and divide numbers to 1000 by 10 and then 100 (whole-number answers)
- I can use a written method to multiply and to divide a two-digit by a one-digit number, including division with remainders
- I can find fractions of numbers, quantities or shapes e.g. 1/5 of 30 plums, 3/8 of a 6 by 4 rectangles

Measuring

- I know and can use metric measurements and their abbreviations when estimating, measuring, and recording length mass and capacity.
- I can read scales if they are numbered or partially numbered.
- I can draw rectangles and measure and calculate their perimeters
- I can find the area of shapes by counting squares.
- I can read time to the nearest minute
- I can calculate time intervals from clocks and timetables

Understanding Shape

- I can draw shapes and classify them according to their properties e.g. number of right angles, number of faces
- I can visualize 3-D objects from 2-D pictures of them.
- I can make nets of common solids.
- I can recognize horizontal and vertical lines.
- I can use the eight compass points
- I know angles are measured in degrees and that a whole turn is 360°.
- I can compare angles, say which are bigger and smaller, and arrange them in order of size



Handling Data

- I can draw different graphs and answer questions about them

Ideas for home learning activities

Using and Applying Mathematics

- Write some word problems for different operations and solve them. Link it to something they enjoy e.g. football, comic characters. Make sure that they include all the operations (+, -, x, ÷) .
- Teach a younger relative,/friend how to solve a problem.

Counting and Understanding Numbers/Knowing and Using Number Facts

- Use the language of fractions when dividing pizzas, pies, cakes. Cut sandwiches into given fractions e.g .1/4, 1/8. What do they notice if someone is given ¼ and another 2/8?
- When out shopping round prices to the nearest number.
- Roll 3 dice (or 1 die 3 times). Make all possible 3 digit numbers e.g. 2, 6, 4 could make 246, 264, 426, 462, 642, 624. Order them. Round the numbers to nearest 10 then nearest 100.
- Write fractions on blank playing cards and their decimal equivalents on other cards. Play a pairs game.

Calculating

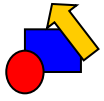
- Make a card game. Multiplication table on one card answer on another. Match them up.
- Challenge children to work out sums in their head. They need to know the sets of numbers that make 10, 20, 30 and to be able to count in tens. They need to practice working out in their heads sums like 33 + 67, 86 – 28
- Have calculator races. One person with a list of numbers to multiply and divide by multiples of 10 and the other with pencil and paper. Who can work out the answers the quickest?
- Estimate the final bill at the end of a trip to the supermarket.

Measuring

- Learn different measures linked to distance, mass, capacity and time. Make a game using blank playing cards. Write 1000ml on one card and 1 litre on another, these make a pair. Repeat for other measures then match them up. Make posters of the units of each type of measure. Use pictures to give visual clues. (Use computer?)
- Measure objects their length, their width, their height. Write measurements as cm and m + cm e.g. 165 cm or 1.65 m. Order them. What's the tallest item in the house? Smallest? Widest?
- Ask them to write down a TV schedule for a day/week. Work out the duration of each programme and the total for each day.
- Look at different timetables. How long are different journeys?

Understanding Shape

- Draw a picture made up of different shapes. Describe the picture to someone else. Can they draw an exact replica?
- Play shape bingo. Draw six shapes and ask someone to read out clues and see if you can cross them off e.g. If you have a shape with four equal sides you can cross it off. What's it called? If you have a shape with at least one acute angle you can cross it off.



Handling Data

- Look out for graphs in newpapers and magazines. What do they show? Ask and answer questions such as ' how many more people … ?'