

Properties of shapes

HERE'S THE MATHS

3-D shapes can be described according to the number and shape of their faces, the number of vertices (corners) and edges, e.g. a triangular prism has 5 faces (2 are equilateral triangles and 3 are rectangles), 6 vertices and 9 edges. Faces and edges may be horizontal or vertical. They may be parallel to one another or perpendicular to one another. This topic has a large amount of specialist vocabulary to assimilate.

ACTIVITY

What to do

- Write 'horizontal', 'vertical', 'perpendicular' and 'parallel' on the sticky notes so you have three of each type of line/s.
- Start the timer and ask your child to stick the notes around the room where there are examples of this type of line/s.
- Check the notes were correctly placed and collect them.
- Take a turn – you should try to find different examples.
- The winner is the person who finds 12 examples in the shortest time.

You will need:

- 12 sticky notes
- timer (or phone with timer)

Variation

- Play in a different location, perhaps outside.

QUESTIONS TO ASK

Use your arm to show me a horizontal (vertical) line.

Use your arms to show me perpendicular (parallel) lines.

Point to a shape and ask if it has a vertical (horizontal) line of symmetry.

Show me two faces on this shape that are parallel (perpendicular).



Year 3 Maths Newsletter 9



Date: _____

Name: _____

MATHS TOPICS

These are the maths topics your child will be working on during the next three weeks:

- Number and place value
- Addition and subtraction
- Properties of shapes

KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:

- compare and order numbers up to 1000
- add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction
- identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

TIPS FOR GOOD HOMEWORK HABITS

Talk to your child about maths and use a wide range of vocabulary, e.g. in this unit, horizontal, vertical, perpendicular and parallel.

Number and place value

HERE'S THE MATHS

Your child is consolidating their knowledge of numbers to 1000 in numerals and words. They place 3-digit numbers on an empty number line, using and applying their knowledge of place value and ordering. Encourage your child to explain their thinking while they do this because it will help to cement their understanding.

ACTIVITY

What to do

- Lay the rope or string out in a straight line and explain that it represents a number line from 0 to 1000.
- Ask your child to stand at the positions representing 0, 500 and 1000.
- On the cards or pegs write six different 3-digit numbers.
- Take turns to decide where the numbers fit on the number line.
- Discuss the strategies used.

You will need

- long piece of rope or string (between 2 m and 5 m)
- 6 small pieces of card or wooden pegs

QUESTIONS TO ASK

Name three odd numbers greater than 350 but less than 400.

How many different 3-digit numbers are there that are divisible by 10 and have a 4 in the tens column? (Nine: 140, 240, 340, 440, 540, 640, 740, 840, 940).

Can you partition 263 into 100s, 10s and 1s in two different ways? ($260 = 200 + 60 + 3$ or $263 = 100 + 160 + 3$)

Addition and subtraction

HERE'S THE MATHS

Addition and subtraction are inverse (opposite) operations. Your child is learning that this fact can be used to check answers. Estimating the answer before doing the calculation is another checking strategy. This week your child is continuing to practise and consolidate their understanding of both mental strategies and formal column methods for addition (with carrying) and subtraction (with decomposition). If necessary, remind your child to put the larger number first when subtracting.

ACTIVITY

- Here are four 3-digit numbers: 547, 279, 188 and 451.
- Each person uses them to write one addition sum and one subtraction sum.
- Work out the answer using a method of your choice.
- Write word problems to fit the calculations.
- Swap questions and try to answer them.

Variation

- Choose numbers of your own. (Make sure that they do not cross the 1000 barrier.)

QUESTIONS TO ASK

What number is halfway between 0 and 1000? What numbers are halfway between 0 and 500, and 500 and 1000?

Count in 10s from 80 to 140 (from 270 to 350 etc.).

Count back in 100s from 953.

What is $1000 - 450$?

What has to be added to 850 to make 1000?