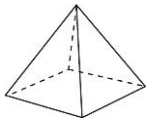
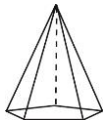
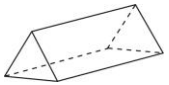
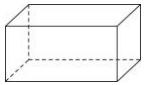
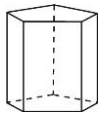
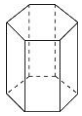
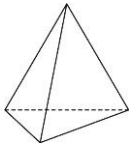
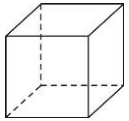
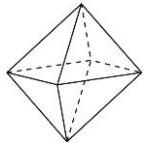
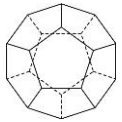
Properties of shapes

HERE'S THE MATHS

This week your child will be learning to identify and name 3-D shapes and their properties. They recognise pairs of parallel and perpendicular edges and then faces. They understand that pyramids have sloping sides that meet at a point, prisms have the same cross-section through the whole length and that regular polyhedrons (solids with flat faces) have identical faces.

ACTIVITY

1 	2 	3 	4 
5 	6 	7 	8 
9 	10 	11 	12 

You will need:
- 12 counters or coins

What to do
- Take turns to name the shapes. Cover each one with a counter or coin as it is named.
- Use the shapes above to ask your child questions similar to those below.

QUESTIONS TO ASK

Point to a shape. What do we call this shape? What can you tell me about it?

How many vertices does an octahedron have? How many edges/faces?

How many pairs of parallel sides are there in a cuboid?

Year 5 Maths Newsletter 1

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:
- read, write, order and compare numbers to 100 000
- add and subtract numbers mentally with increasingly large numbers
- recognise and name 3-D shapes and describe their properties.

TIPS FOR GOOD HOMEWORK HABITS

Plan a homework timetable and agree a time when your child will do their homework.

Number and place value

HERE'S THE MATHS

Your child is learning to read, write, order and compare numbers to 100 000, focusing on the place value of each digit. They round 5-digit numbers to the nearest 10 (100, 1000), focusing on the ones (tens, hundreds) digit when deciding whether to round up or down. To round to the nearest 10 (100, 1000), 5 (50, 500) or greater is rounded up; 4 or fewer (49 499) is rounded down.

ACTIVITY

1	**23,476**	**73,821**	**53,932**	**83,147**	**33,815**	**63,743**	***123456***
2	**70,654**	**23,412**	**98,526**	**54,720**	**88,888**	**56,904**	***123456***
3	**34, 761**	**21, 353**	**65, 217**	**43,905**	**74, 279**	**51,673**	***123456***
4	**42, 125**	**78,545**	**64,150**	**95,435**	**10, 785**	**100,000**	***123456***
5	**19, 650**	**67,204**	**80,007**	**54,098**	**78,001**	**40,057**	***123456***
6	**37,412**	**35,908**	**32,249**	**30, 865**	**34,534**	**39,382**	***123456***

You will need:
- 1–6 dice
- 2 pencils in different colours

What to do
- Take turns. Roll a dice to decide a row. Roll the dice a second time to decide on the operation.
- Cross out that number in the final column in your colour once it has been answered.
- A number can only be used once. If you roll dice that have been used, miss a go.
- The winner has the most numbers crossed out when you stop playing.

Roll a 1 – Read the numbers in the row
Roll a 2 – Round the row to the nearest 10
Roll a 3 – Order the row from smallest to largest
Roll a 4 – Round the row to the nearest 100
Roll a 5 – Find a common property in the row of figures
Roll a 6 – Round the row to the nearest 1000

QUESTIONS TO ASK

What is the 4 worth in 24 567?

Explain the function of the zero in 40 321.

What is 6543 × 10?

Addition and subtraction

HERE'S THE MATHS

This week the focus is on review of mental methods for addition and subtraction using increasingly large numbers. Strategies include rounding, adjusting and finding the difference. Encourage your child to use an empty number line or jottings when necessary.

ACTIVITY

5,000	40 000	33 333	88 888	123 456	987 654
28 282	60 000	65 432	56 789	77 777	135 135

You will need:
- pack of playing cards: Jacks represent 99, Queens represent 999, Kings represent 10 000
- coin: heads represents addition and tails represents subtraction
- timer (or phone with timer)

What to do
- Turn over a card and toss the coin to decide on the operation, e.g. heads and a Queen means adding 999.
- Start the timer and both carry out the same operation on every number in a row.
- The first to finish gets a bonus of 10 points.
- Check answers and award 5 points for each correct answer.
- Repeat with a new operation on the numbers in the second row.
- Choose your own numbers to put in the third row and repeat.
- The winner has the higher score.

QUESTIONS TO ASK

Explain how to subtract 3030 from 23 100 using a number line.

How can you subtract 999 mentally?

What is the smallest number that, when rounded to the nearest 10 (100, 1000), becomes 30 000?