Statistics

HERE'S THE MATHS

Bar charts and pictograms (picture symbols for words) show data in a more engaging and attractive way than numbers alone. Labelled neat graphs make data clearer to read and interpret, so encourage your child to work as carefully and neatly as possible. Data is collected using tally marks in a frequency table. Counting is done using four short vertical lines, with the fifth as a diagonal line through them; this is sometimes referred to as 'closing the gate'. It is easy to count up the fives.

ACTIVITY

Length of word	Tally	Frequency
1 or 2 letters		
3 or fewer letters		
4 letters		
5 letters		
6 letters		
7 letters		
8 or more letters		

You will need:
- reading book
- paper (squared if possible)

What to do
- Choose a paragraph each from your child's reading book to complete the tally chart.
- Draw a bar chart to show the results.
- Make up some questions about the results.

Variation
- Draw a pictogram of the data, where one picture represents two words.

QUESTIONS TO ASK

- What is a frequency table?
- Why do we make tally marks in sets of 5?
- What is a bar chart/pictogram?
- What is the difference between a bar chart and a pictogram?

Year 3 Maths Newsletter 7

Date: _____

Name: _____

MATHS TOPICS

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

KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:
- add numbers with up to three digits, using the formal written method of column addition
- subtract numbers with up to three digits, using the formal written method of column subtraction
- display and explain data using bar charts, pictograms and tables.

TIPS FOR GOOD HOMEWORK HABITS

Be positive about maths even if you didn't like it at school. Let your child explain to you the different strategies and methods that they are learning. (Avoid teaching your child methods you used at school as it may confuse them.)

Addition

Your child is learning the formal method of column addition. Ask your child to explain the method to you. If adding the ones crosses the tens boundary, they will put the carried figure in the tens column under the answer line. They need to have a secure understanding of place value and a good knowledge of number bonds to 20.
Always encourage your child to estimate the answer first.

ACTIVITY

What to do
- Using the numbers 6, 7 and 8, write all the possible 3-digit numbers.
- Add each of these numbers to 123, writing the calculation as shown.

You will need:
- pencil and paper

	H	T	O
	1	2	3
+			

- One person should estimate by rounding up or down to the nearest hundred, e.g. an estimate for 123 + 678 is 100 + 700 = 800.
- The other person adds the actual numbers using the formal method of column addition.
- Change roles.

Variation
- To simplify, choose numbers that will not involve carrying ones or tens.

QUESTIONS TO ASK

What is 165 + 8? Which numbers change?

What is 165 + 80? Which numbers change?

What is 165 + 800? Which number changes?

What must be added to 271 to make 771? What must be taken away from 771 to make 271? What do you notice? Does this always happen?

What is the opposite of addition?

Subtraction

Your child is learning the formal method of column subtraction, using decomposition. Ask your child to explain the method to you (and do not be tempted to teach them another method if you were taught differently at school).

$$452$$
$$-127$$

In the calculation, they need to change the way that 452 is written to $4\,^4\!5^1\!2$, using decomposition: 5 tens and 2 ones have become 4 tens and 12 ones. 12 take away 7 is now possible. Always encourage your child to estimate the answer first.

ACTIVITY

A: Greater than 500	B: Less than 500

You will need:
- pencil
- calculator

What to do
- Write five numbers greater than 500 in column A and five less than 500 in column B.
- Estimate the difference between A and B.
- Subtract B from A using the formal method of column subtraction.
- Use a calculator to check your answer.

Variation
- Repeat using different numbers.

QUESTIONS TO ASK

What is 825 − 7? What is 825 − 70? What is 825 − 700? Which numbers change each time?

In a subtraction calculation using the formal method, which number is written first, the smaller or the larger one?

What is 751 − 6? What is 751 − 60? What is 751 − 600? Which numbers change each time?