Mathematics Mastery

Exploring Number

Write the digits 0-9 on separate pieces of paper or on sticky notes. Turn them over, and then choose 4 of them. Make two 2-digit numbers (e.g. 45 and 21). Which number is bigger? Smaller? Can you record in an expression using the symbols < and >?

$$
45>21 \quad 21<45
$$

On a farm there are some hens and sheep. Altogether there are 8 heads and 22 feet.

How many hens are there?
Can you draw pictures or make models to show your thinking and working out?

For more ideas see www.nrich.maths.org/924

Write the digits 0-9 on pieces of paper or sticky notes. Choose two digits and add them together. Is the total odd or even?

Choose two more digits and repeat. Is the total odd or even?

Repeat again and again. Record whether the total is odd or even.

Can you choose 2 numbers where the answer will always be even? odd?

| 0 | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- |
| 4 |  |  |  |
| 5 | 6 | 7 | 8 |

You need ten coins (or fewer if that's all you can find) and a partner. Together, have a look at the ten coins, then put all ten coins in a bag. Take it in turns to choose two coins - without looking!

Without looking, can you work out the coins you have and what the total is? Ask your partner to check.

Try selecting 3 or 4 coins.

What is your favourite number? Can you make a picture about your favourite number? For example, if your favourite number is 5 , you could draw a hand, five dots on a dice, five flowers, a starfish.
Show your picture to someone. Can they guess what your favourite number is?
numbers in real life

## Did you know ...

- Oak trees don't produce acorns until they are 50 years old?
- Horses have 18 more bones than humans?
- A snail can sleep for 3 years?
- Bees have 4 wings?
- The symbols 0-9 have been used in India for nearly 2000 years?

Mathematics
Mastery

Go on a number hunt around your home.
Record all the different numbers you can find.
Look in as many cupboards and rooms as you can.
Can you now re- write the numbers in order from the smallest to the largest?

Can you find ...
1 leaf
2 white flowers
3 twigs
4 trees
5 bugs
6 blades of grass
7 birds
8 plants
9 yellow flowers
10 stones?

numbers in real life

A magic square is where each row, column and diagonal add up to the same total. This total is called the 'magic number'. Can you work out what the magic number is in this square and finish the square?

You can only use each of the digits 1-9 once.

|  | 7 | 6 |
| :--- | :--- | :--- |
| 9 | 5 |  |
| 4 |  | 8 |

reasoning about number
Ask an adult to help you find the book 'The Doorbell Rang' on the internet. Listen to the book being read out loud (unless you have the book, in which case you can read it yourself).

Find 12 objects and act out the story with friends or toys.
exploring numbers

Ask someone to help you to go to the NRICH website and have a go at the task called "Counting Crayons'.
www.nrich.maths.org/10653


## You have been...

Exploring place value and numbers
Counting and calculating
Exploring numbers in real life
Estimating numbers

$\square$
Reasoning about number

