



Autumn 1 - Year 1

Becoming a Number Detective

This is your Bingo Card for my half termly 'Maths Missions'!

These challenges should encourage children to **think like mathematicians**: investigating, generalising, proving, spotting patterns, creating systems and explaining reasoning. This is an optional extra for children who want to do further Maths challenges after completing the home learning set by their class teacher. Tick them off as you go! 😊

1. What's Special About My Number?

Choose a number from 1-10.

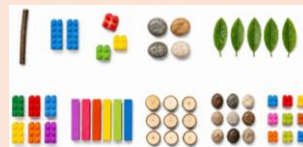
1 2 3 4 5 6 7 8 9 10

Can you find:

- ways to make it?
- things around your house in groups of that number?
- objects longer and shorter than that number of cubes?

What makes your number special?

2. Build Every Number



Use toys, blocks, Lego, sticks or natural materials.

Can you build all numbers from 1-10 in different ways?

Challenge!

Which number can be made in the most different ways?

3. The Missing Numbers Challenge

Create your own number tracks with missing numbers.

For example:

□ 4 □ 6 □

Can you make some hard enough to trick your teacher?

4. Number Hunt

Find numbers everywhere:

- clocks
- doors
- cars
- food packets



Record 20 numbers.

What do you notice?

5. Largest and Smallest

Using digit cards 0-9:

Make:

- the largest number you can
- the smallest number you can

Try with 2 digits, then 3 digits.

Explain your rules.



6. Invent a Counting Game

Create a game that helps someone learn to count.

Test it on someone at home.

What worked well?





Year 1 Bonus Challenge

The Number 20 Investigation

You haven't learned all your numbers to 20 in class yet, but can you become an expert?

Find out:

- How many ways can you make 20?
- Which two numbers add to make 20?
- Which three numbers add to make 20?
- Can you make 20 using coins?
- Can you find 20 objects arranged in different arrays?

Challenge Question: Is there a pattern in all the ways you can make 20?



Ultimate Whole-School "Impossible" Challenge

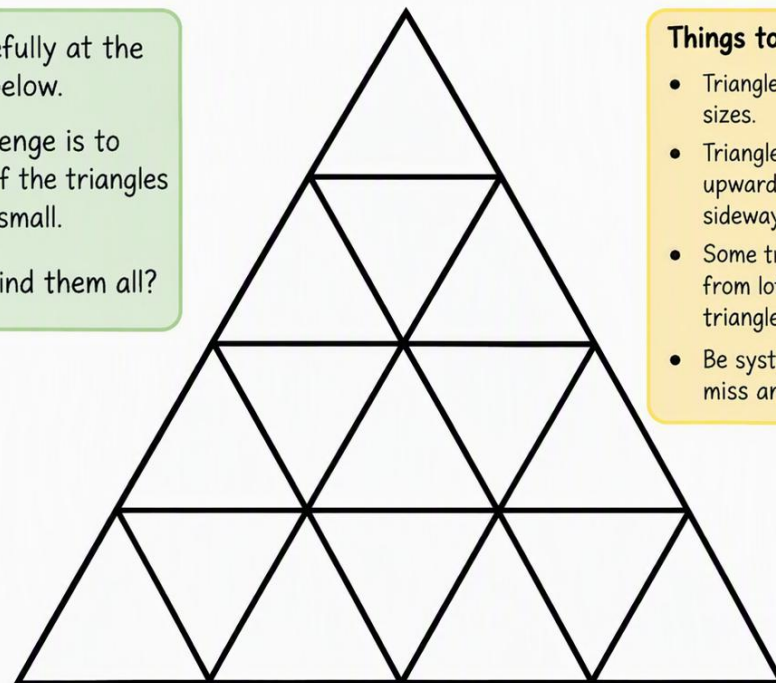
How Many Triangles?

It looks simple... but it's trickier than you think!

Look carefully at the triangle below.

Your challenge is to count all of the triangles – big and small.

Can you find them all?



Things to remember:

- Triangles can be different sizes.
- Triangles can point upwards, downwards or sideways.
- Some triangles are made from lots of smaller triangles.
- Be systematic – don't miss any!

How many triangles can you find?

Can you prove your answer?

Can you find a strategy to make sure you don't miss any?