



# KNOWLEDGE ORGANISER

# MATHS



## Overview

### Mathematics

Maths is used in all aspects of life, for example when telling the time, playing games, cooking, building, or shopping.



Within Maths in Early Years we look at number, spatial awareness, shape, pattern, measures.



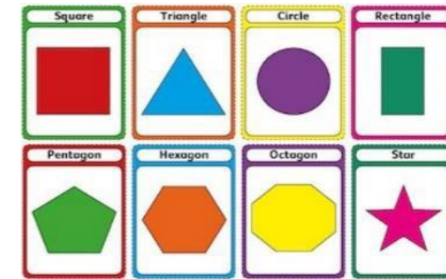
## Shape, Space and Measure

### Shapes

-There are lots of different shapes in the environment

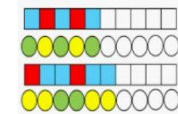
-Use the correct maths names for 'flat' (2D) shapes

- Use the correct maths names for 'solid' (3D) shapes, e.g. cube, sphere, cone or pyramid.



### Patterns

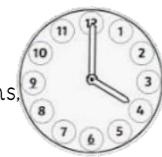
-Patterns are when colours, objects, lines or shapes are repeated in an order. We can find, describe and make our own patterns.



### Time

-Time tells us when things happen. We can split time into years, seasons, months, days, weeks, hours, minutes and seconds.

-Clocks and calendars help us to tell the time. We can use words such as 'later', 'earlier', 'before', 'after', 'when' to describe the time of events.



### Money

-Money is used to pay for things. Different types of money are used across the world. In the UK, we use pounds and pence (£ and p). We can use words such as 'cost', 'price', 'pounds', 'pence', 'change' to describe money.

## Key Vocabulary

Mathematics

Numbers

Digits

Shape/Pattern

Time/Money

Counting

Add

Subtract

Double

Share

## Number



Digits

-Numbers are used for counting and measuring. Numbers are made up of these digits (in order, from least to most):

0 1 2 3 4 5 6 7 8 9

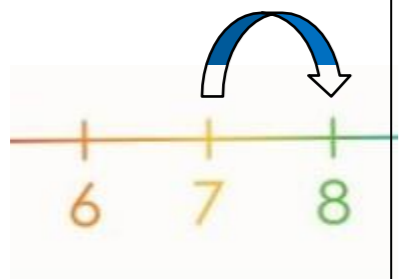
-The digits can be used together and in different orders to show different amounts.

Counting to 20

-Numbers can be counted, beginning (in order) from 0 to 9.

-Once we count beyond 9, we need to start putting two digits together in order to create larger numbers, e.g. 10, 11, 12. We work to be able to count with numbers up to 20 by the end of Reception.

One More, One Less

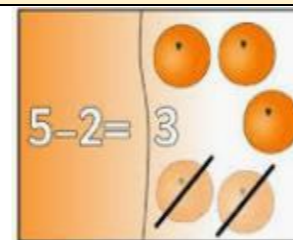


-We can use our knowledge of counting to work out one more or one less of an amount.

e.g. 'I have 7 apples. I am given 1 more. How many do I have now?' or 'Jake has 8 sweets, but gives 1 to Charlie. How many sweets does Jake have now?'

We can use the objects to show this, or can find the answer using a number line.

## Number - Calculations



Adding and Subtracting

-Adding is when we add two numbers together to make a new total. E.g. '3 and 2 makes 5.'

-Subtracting is when we take away one number from another number to make a new total. E.g. 'If we have 5 and we take away 2, then we have 3.'

We can use objects and pictures to add and subtract with one-digit numbers.



Doubling, Sharing and Halving

We can use objects or pictures to work out problems involving doubling, sharing and halving.

Doubling is when we add the same number to itself. E.g. '2 and 2 is 4. So the double of 2 is 4.'

Sharing is when we split something into equal parts or groups. E.g. 'If there are 12 gems and 4 people, how many gems does each person get when we share? (answer is 3).'

When halving, we share into 2 equal parts/ groups. E.g. 'There are 6 books. Both girls have 3 each. They each have half each.'

## Number Line 0-20

