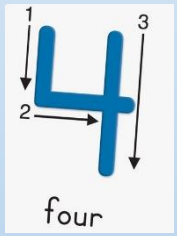
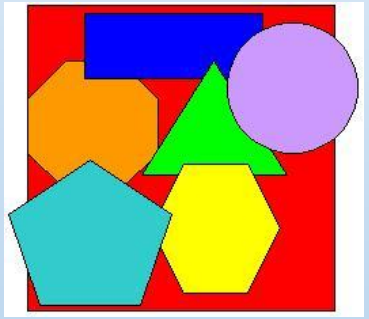
Maths in the EYFS





How do we teach maths in reception class?

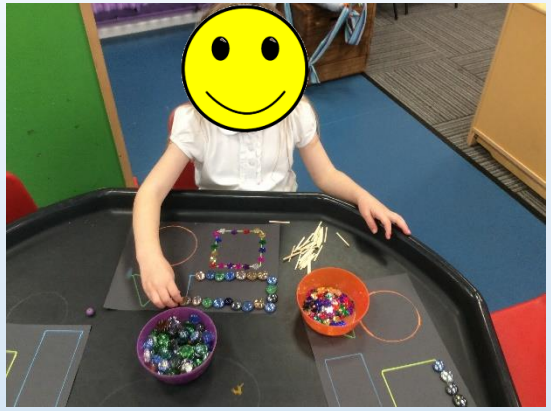
How can you help your child at home?

Inquisitive mathematicians

- Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.

- It is important that children
  - ✓ Develop positive attitudes and interests in mathematics
  - ✓ Look for patterns and relationships
  - ✓ Spot connections
  - ✓ Talk to adults and peers about what they notice
  - ✓ 'Have a go'
  - ✓ Are not afraid to make mistakes.

Maths in reception class

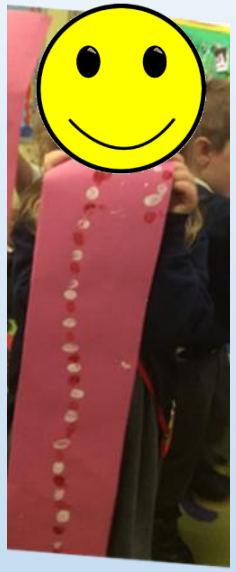


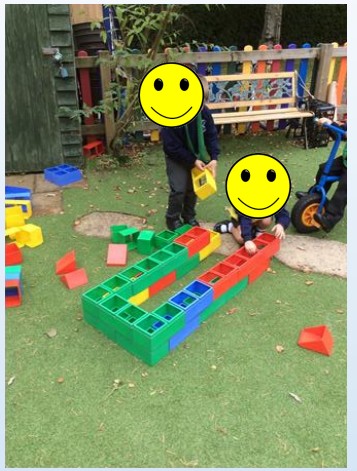
There will be a taught session every day to develop maths skills.

There are adult led focus activities and independent challenges set for the children to complete.

The focus for much of the year will be on numbers within 10. This does not mean your child cannot continue to work on number recognition and counting beyond 10.

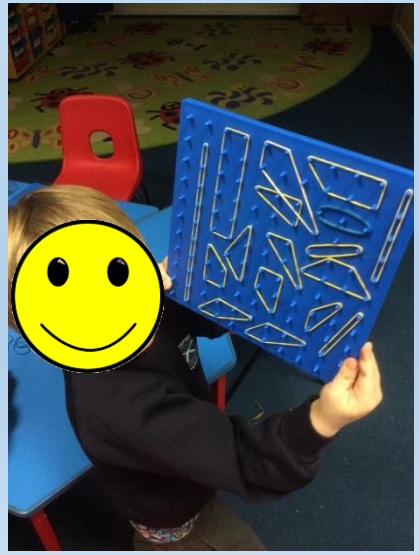
Maths in reception class





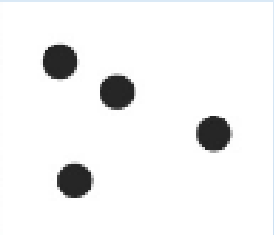
Fun

Hands on



Subitising: A key skill in reception

- It is recognising how many there are, without counting.

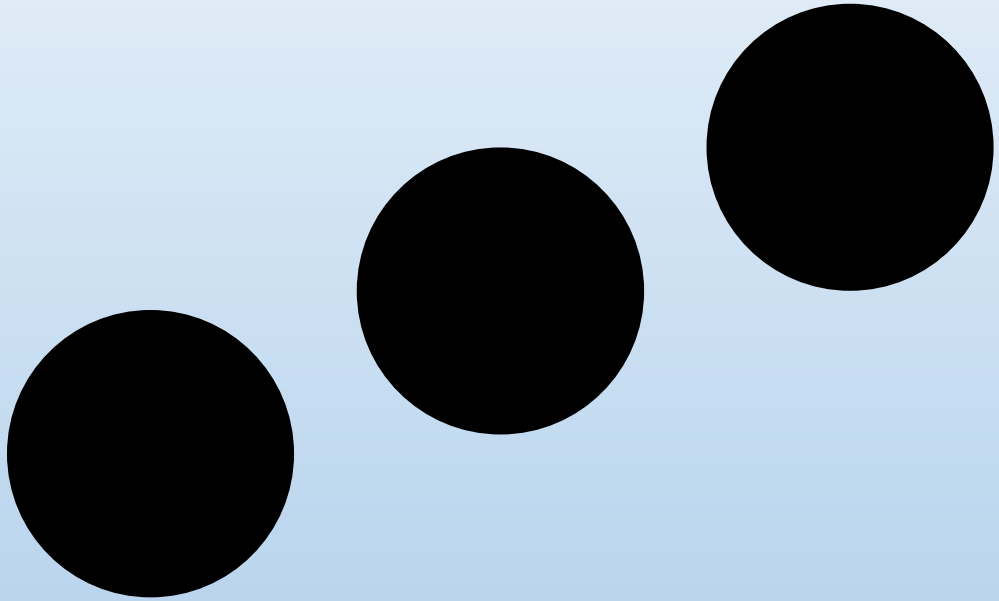


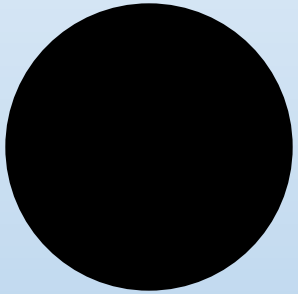
- The cardinal value of a number refers to the **quantity of things it represents**, e.g. the numerosity, 'howmanyness', or 'threeness' of three.

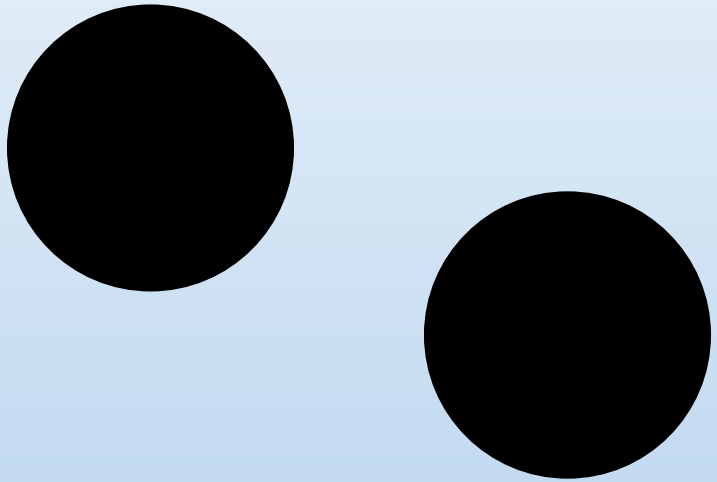
- When children understand the cardinality of numbers, they know what the numbers mean in terms of knowing how many things they refer to.

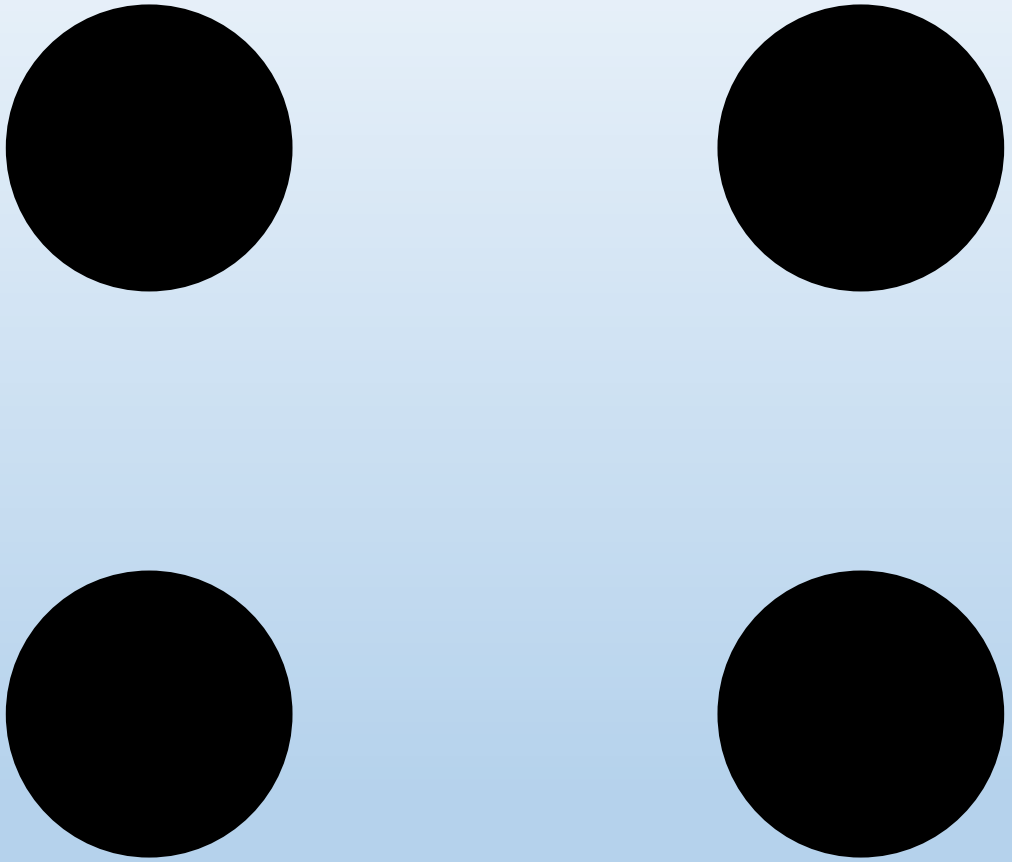
- Children enjoy learning the sequence of counting numbers long before they understand the cardinal values of the numbers.

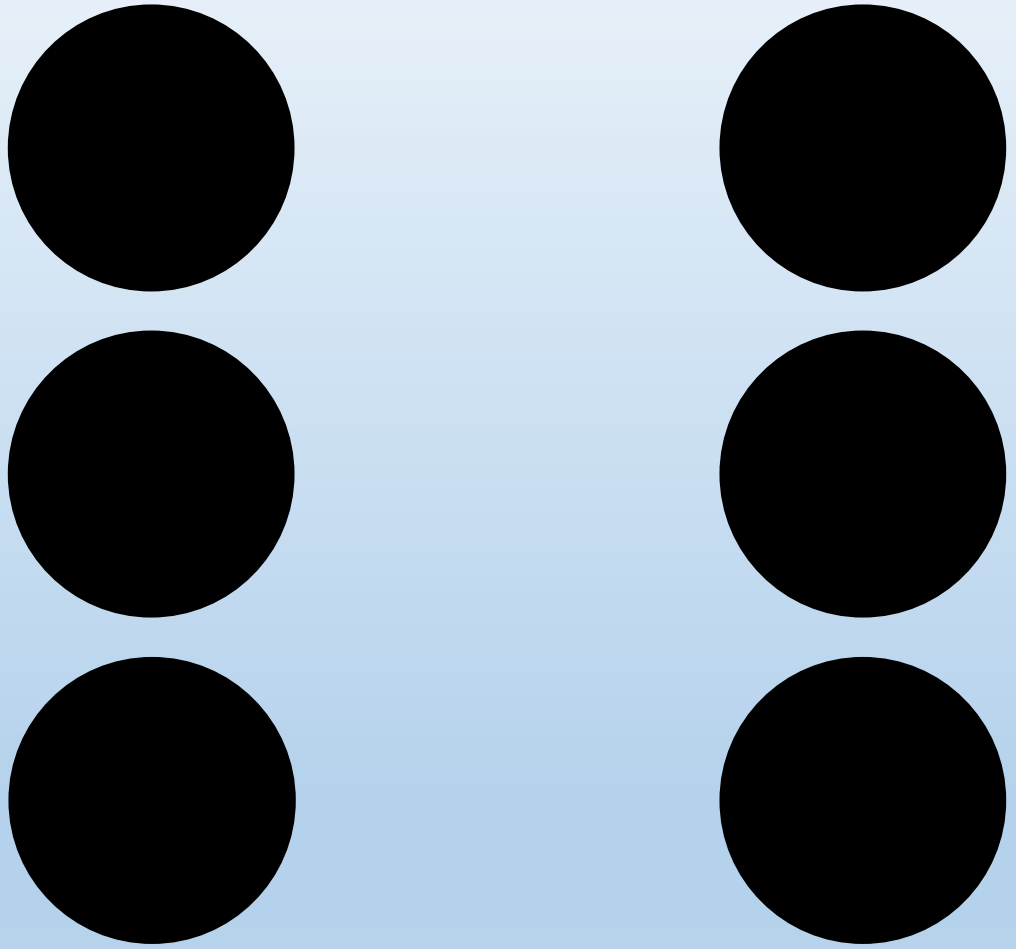
- Subitising helps children learn addition and subtraction facts and **provides a strong foundation** for future maths.

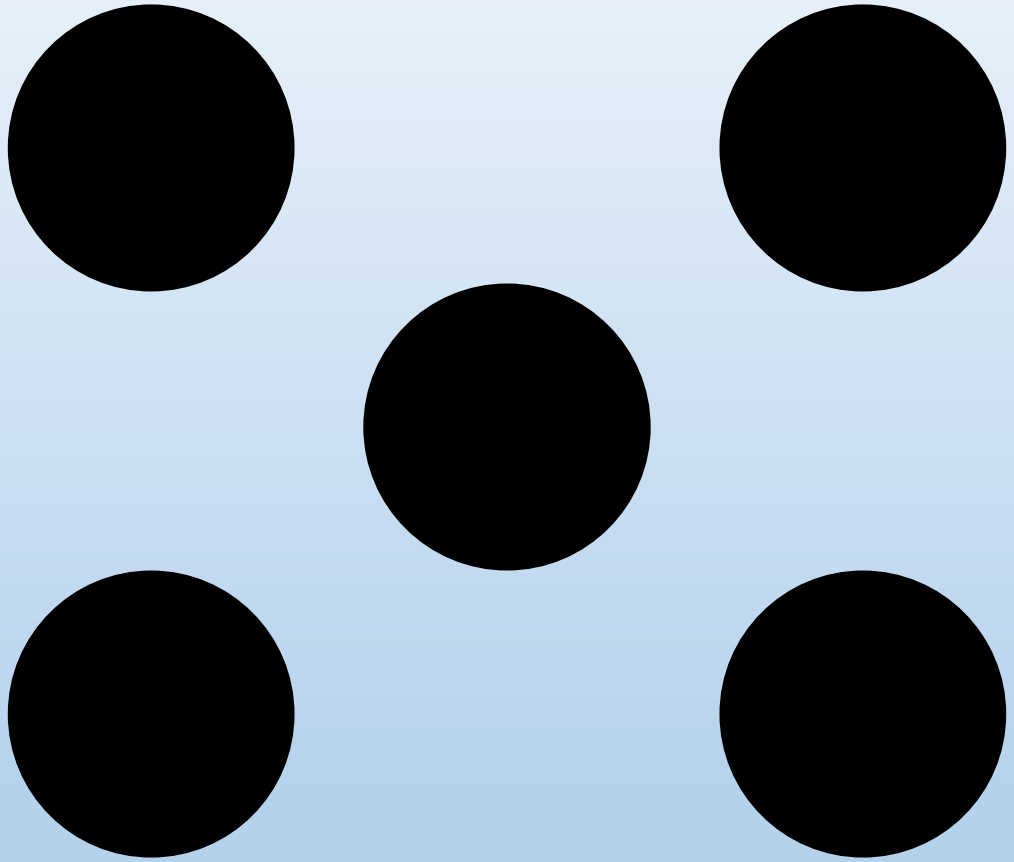








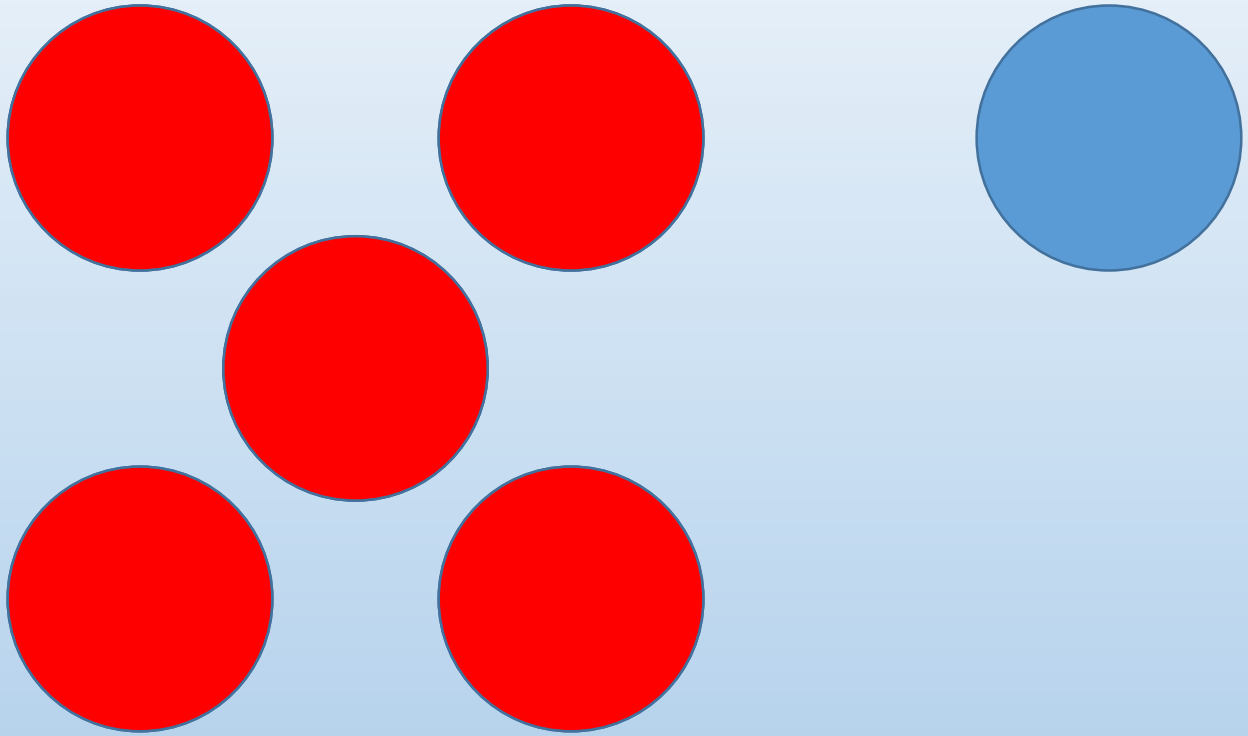


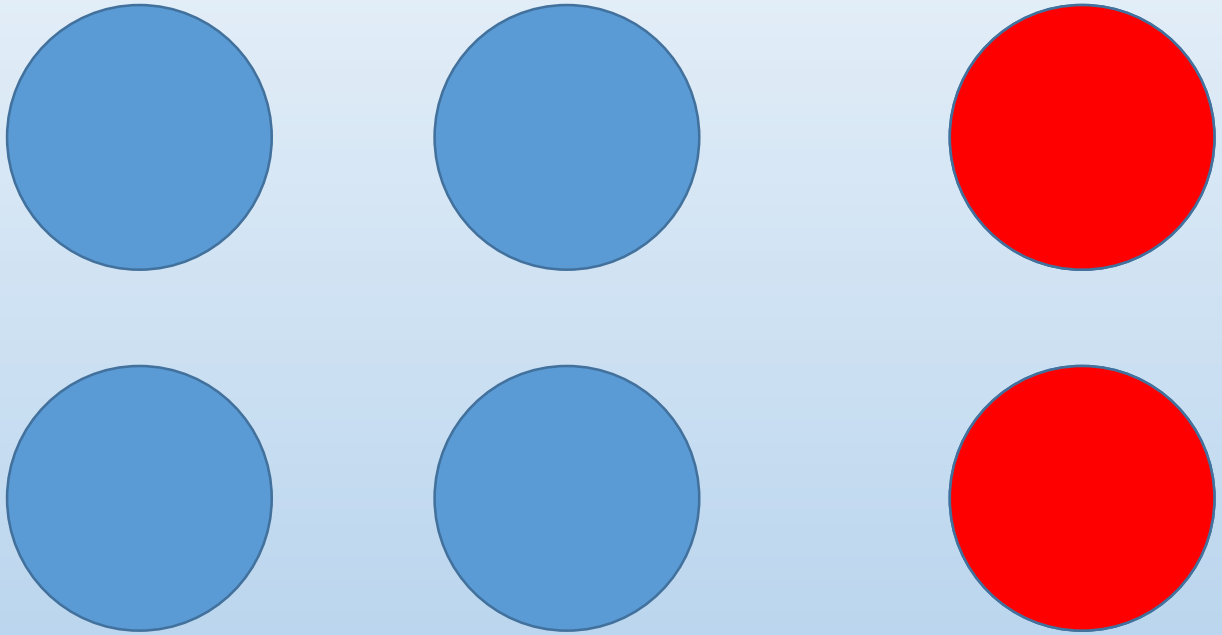


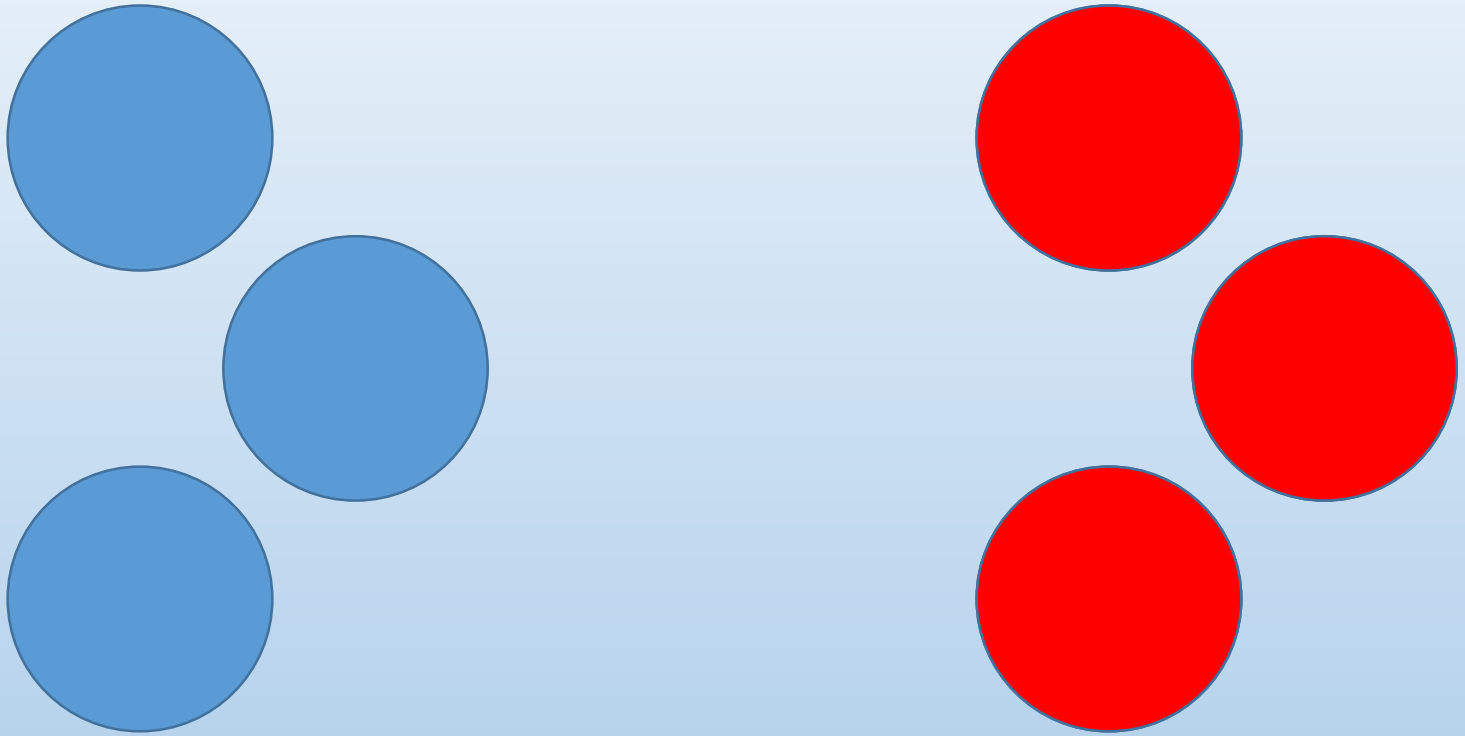
Maths fluency

- This helps us move onto looking at the '**composition of number**'.
- We can see the numbers/amounts within a whole.
- Having a deep understanding of numbers to 10 will help with future addition and subtraction.

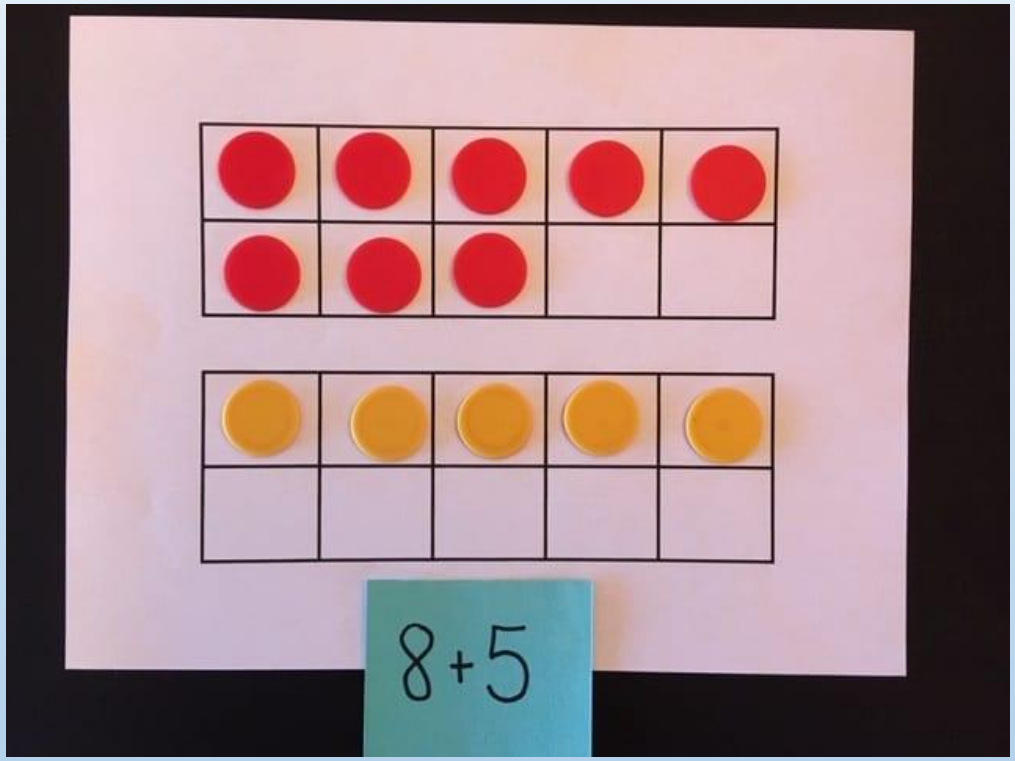
6 is made of...







How will this help in KS1?



Subitising with different patterns and objects

Dice games

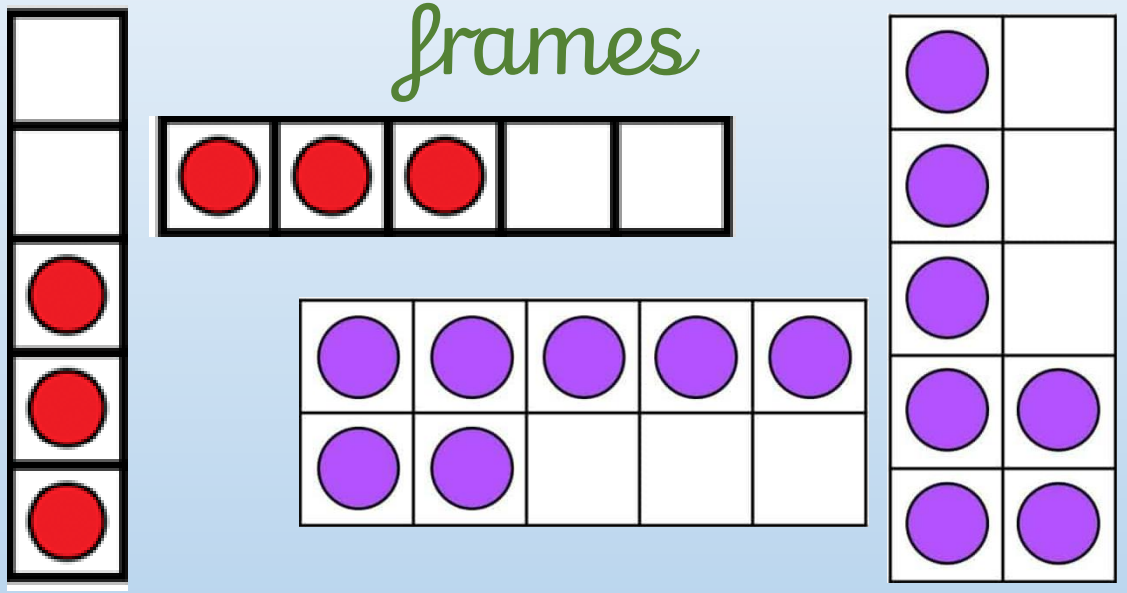
Hands on their heads

Looking at an amount in a range of ways

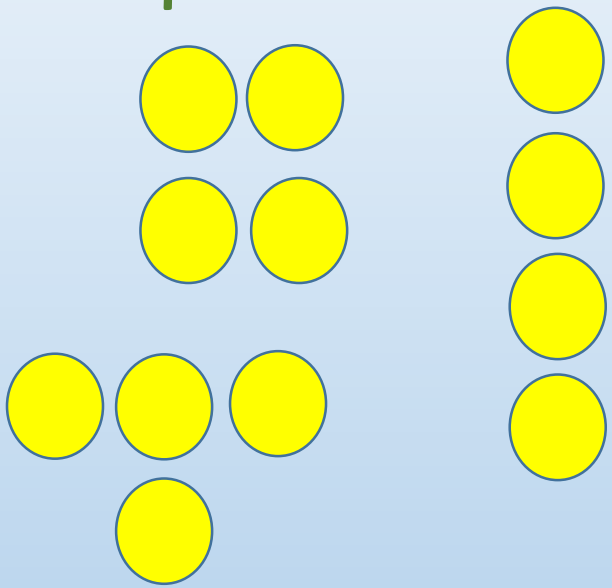
Representation of number

objects

five and tens frames



dot patterns



numicon

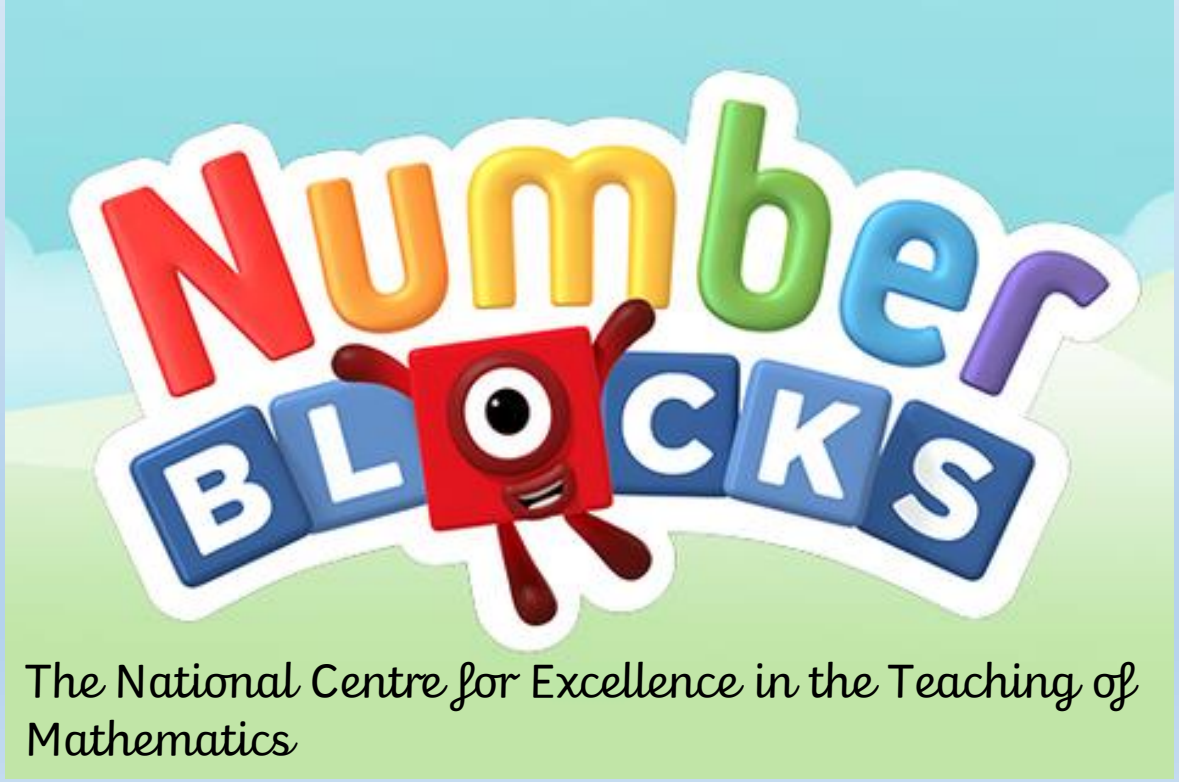
numerals

Numberblocks

Numberblocks will be used as a supporting material to help bring numbers and ideas to life in the world around them.

We will look at each number throughout the year, giving children an opportunity to deepen their understanding of...

- The amount
- What makes up that number (composition)
- Where it sits within the number system in relation with other numbers
- How to form that number



The National Centre for Excellence in the Teaching of Mathematics

Number

Early Learning Goal

Early Learning Goal (Expectation for the end of Reception)

Children at the expected level of development will:

- Have a deep understanding of numbers to 10, including composition of each number
- Subitise (recongise quantities without counting) up to 5
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns

Early Learning Goal

Early Learning Goal (Expectation for the end of Reception)

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
- Explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally.

Supporting your child at home with maths

Play lots of games- including board games.

Point out maths in everyday life

- measuring
- shopping
- cooking

Be positive about maths!

Don't say you couldn't do maths or hated maths.

For children to be good at maths, they need to feel confident about giving it a go.

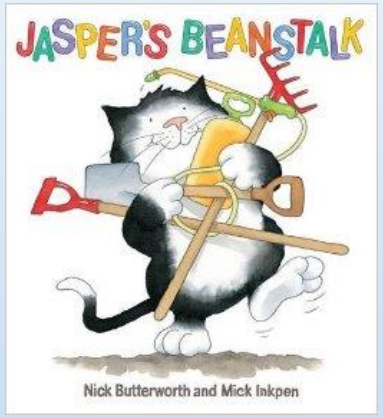
Praise your child for the effort they are putting in, not for how 'clever' they are. Working hard and practising will help them to improve.

Think about language

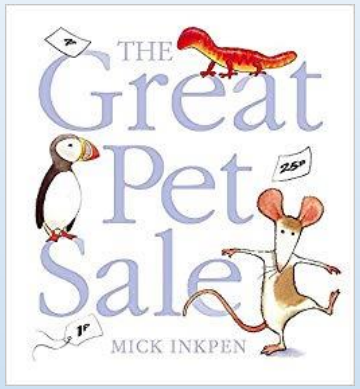
Everyday language moving to mathematical language

General	Mathematical
Big, small	Biggest, smallest, bigger, smaller, longer, shorter, taller
Round one, flat one	Circle, square, sphere, cube, corner, edge
Heavy, light, full, empty	Heaviest, lightest, balanced, the same
On, in, under	Behind, next to, in between
Less, more, a lot, the same	Add, plus, altogether, makes, equals, take away, share, half, double
Today, tomorrow	Before, later, soon, weekend

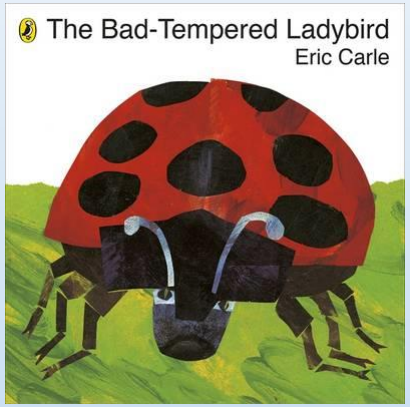
Maths in books



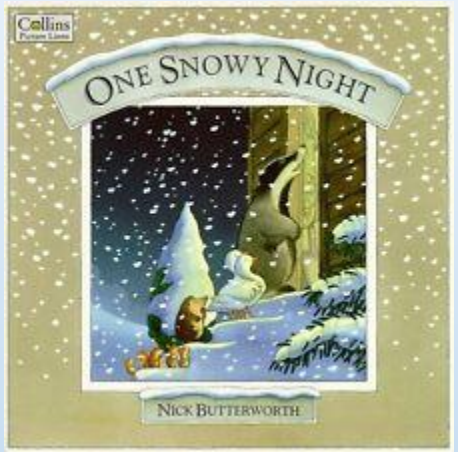
Days of the week



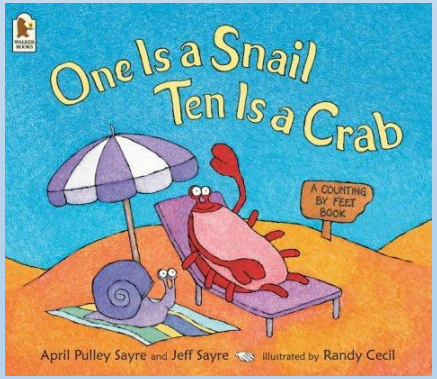
Money



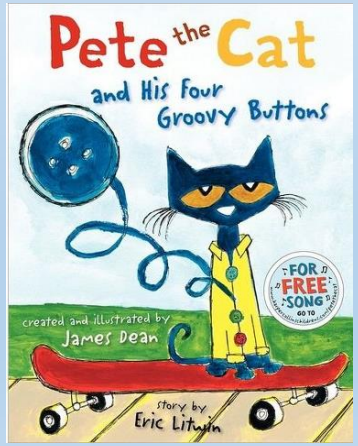
Clock times



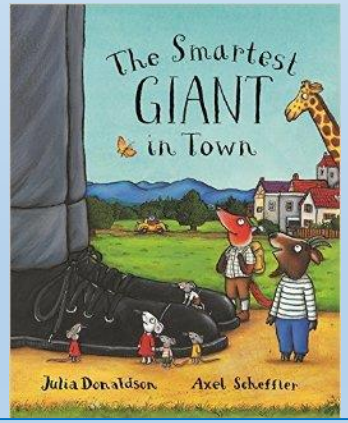
One more - addition



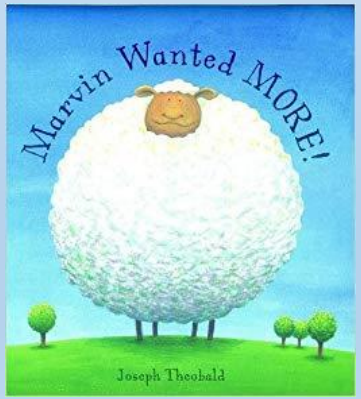
Counting and addition



One less - subtraction



Vocabulary and problem solving related to size



Concept of more

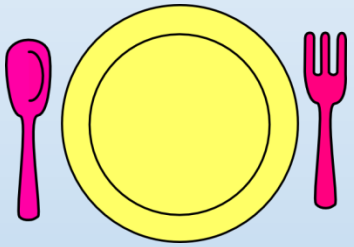
Songs and Rhymes

Ten Green Bottles

Five Little Ducks

In the home

Setting the table and counting out the plates, knives and forks.



Counting how long it takes to put shoes on

Counting the stairs as you go up and down them.

Identifying the coins they have for pocket money and counting how much.

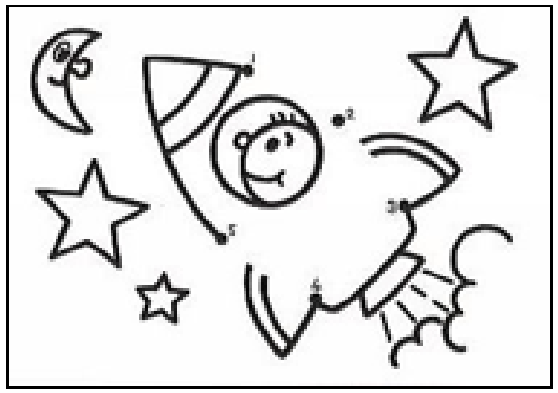
Identifying numerals around the house.

White Rose Maths App

Helps children build greater confidence and fluency.

0 1 2 3 4 5

R.1 St. Andrew's	Tested by someone at home	Checked by someone at school	Passed
I can use positional language - behind, in, on, under, beside / next to.			
I can say the numbers in order, from 0 to 5.			
I can count 5 objects accurately by moving them.			
I can put numbers 0 to 5 in the right order.			
I can recognise numbers to 5 when not in order.			



Suggested activities

Rhymes

Teach your child any number rhymes or songs that you know, particularly ones that involve holding up a number of fingers, like *Five little speckled frogs.*
Practise them regularly, with actions.

Counting and putting numbers in order

Use old magazines, comics or greetings cards. Cut out pictures of animals, or anything else your child is interested in. Label the animals 1 to 5.

- Shuffle the animals. Put them in order from 1 to 5.
- Remove one animal. Ask your child which number is missing. Repeat with other numbers and more than one missing number.
- Ask your child to say what number comes before or after a number you choose.

Dice game

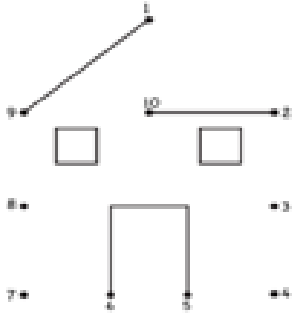
Use a 'dotted' dice and write the numbers 1 to 6 on a sheet of paper (or use the numbered animals).

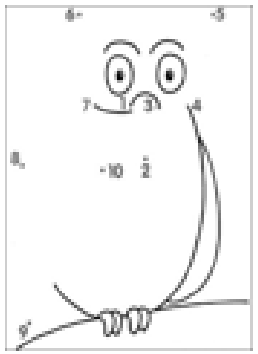
- Throw the dice. Can your child guess how many dots there are?
Check by counting.
- Ask your child which number on the paper matches the dots on the dice.

Did you know more than 200 children go to St. Andrew's Primary School?

0 1 2 3 4 5 6 7 8 9 10

R. 2 Laverstock	Tested by someone at home	Checked by someone at school	Passed
I can recognise and name 2D shapes 			
I can say the numbers in order, from 0 to 10.			
I can count 10 objects accurately by moving them.			
I can recognise numbers to 10 when not in order.			
I can continue a repeating pattern, e.g. red, yellow, red, yellow ..., or  ...			





Did you know the Laverstock and Ford Parish in shaped like a number 7?

Fun games to play at home

Build a tower

For this game you need a dice and some building blocks or Lego bricks.
Take turns to roll the dice. Count the spots on the dice and collect that number of bricks to build your own tower. The first to 10 wins!
For a change, start with 10 blocks or bricks each. Take away the number on the dice. First to zero wins.

Roll a shape

Cut out 12 shapes.
Make 3 triangles, 3 squares, 3 rectangles and 3 circles. Take turns to roll a dice and collect a shape that has that number of sides, e.g. roll a 4, collect a square. The first to have four different shapes wins. If you can name each shape you go first next time!

Collections

You will need number cards to 10 face down on the table.
Take it in turns to secretly turn over a card and clap this many times while the Other player(s) closes their eyes and counts. If they count the correct number of claps they keep the number card. Repeat until all cards are gone. Who has the most cards?

Make some repeating patterns

You can use Lego bricks, or other toys, pieces of fruit, etc. Take turns making patterns and see if the other player can carry the pattern on.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

R. 3 Salisbury	Tested by someone at home	Checked by someone at school	Passed
I can recognise (subitise*) amounts up to 5, without counting, for example: :: is 3 :: is 4			
I can put the numbers 0 to 10 in the right order.			
I can count back from 10 accurately.			
I can say the number that is one more than any number up to 10, e.g. what is one more than 5?			
I can say the number that is one less than any number up to 10 e.g. what is one less than 9?			
I can say the numbers in order to 20.			

*Subitise is to identify the number of things in a set simply by quickly looking at them—not by counting them one by one

Dicey counting

Take turns to roll a dice and count back to zero from the number thrown. For example, If you roll a four you have to say:
Four, three, two, one, zero!

One more, one less

For this game you need a dice, a coin and some building blocks or Lego bricks.

- Take turns to roll the dice.
- Build a tower with that number of blocks or bricks.
- Then toss the coin. Heads means take one brick off. Tails means add one on.
- The first to collect 20 bricks wins!

Counting

Practise counting. Start at 5, and count on from there to 11.
Start at 9, count back from there to zero.
Choose a different starting number each time.

Spot the difference

Draw a row of 5 big coloured spots.

- In turn, one player closes his or her eyes.
- The other player hides some of the spots with a sheet of paper.
- The first player looks and says how many spots are hidden.
- Try with other numbers of spots, e.g. five or seven.

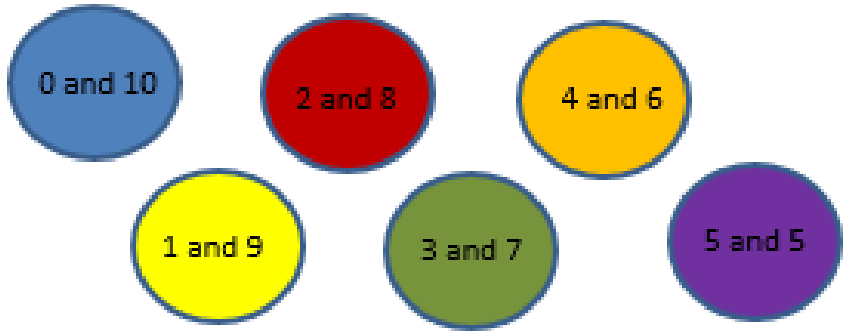
As your child gains confidence with numbers draw more spots (10 or 20)

Did you know that at 123 metres, the spire at Salisbury Cathedral is the tallest spire in Britain?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

R. 4 Wiltshire	Tested by someone at home	Checked by someone at school	Passed
I can automatically recall number bonds to 10.			
I can write numbers to 10.			
I can recognise numbers to 20 when not in order.			
I can say the numbers in order to 30.			
I can double numbers to 5. (double 1 is 2, double 2 is 4 etc.)			

Number bonds to 10:

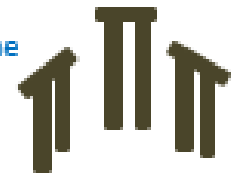


What goes with 7 to make 10?
What goes with 5 to make 10?

0 1 2 3 4 5

6 7 8 9 10

Did you know that Wiltshire contains some very famous and very old landmarks, like Stonehenge. Have you visited yet?



Thank you for coming!