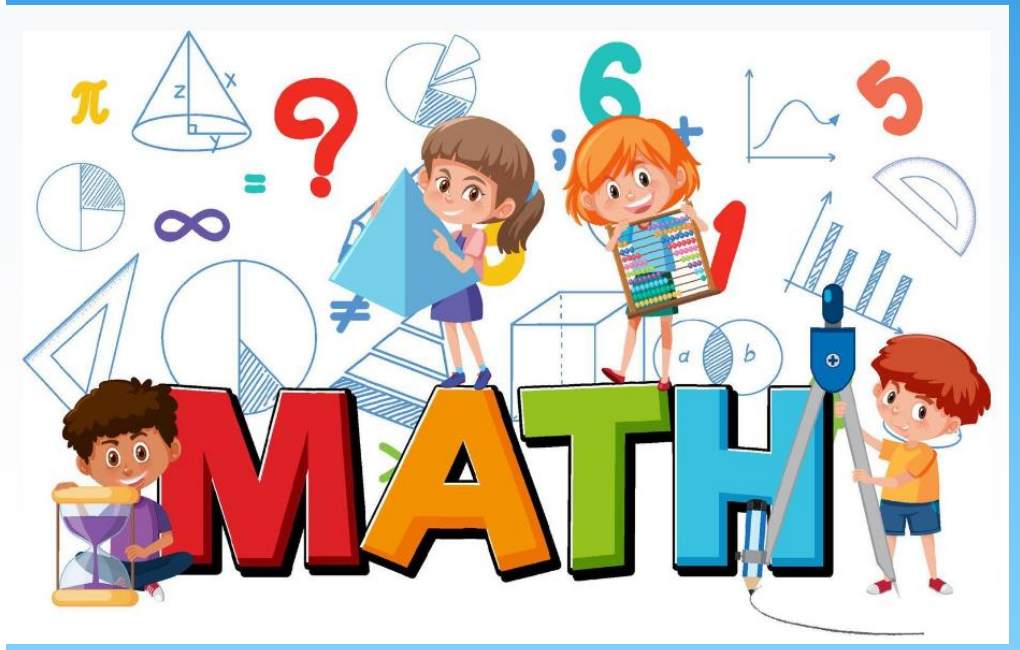
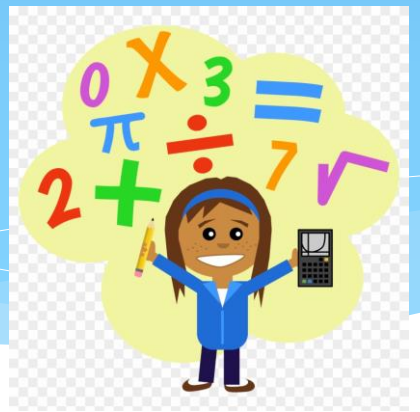
Welcome to our Maths workshop



Year 1 and Year 2



Session Aims

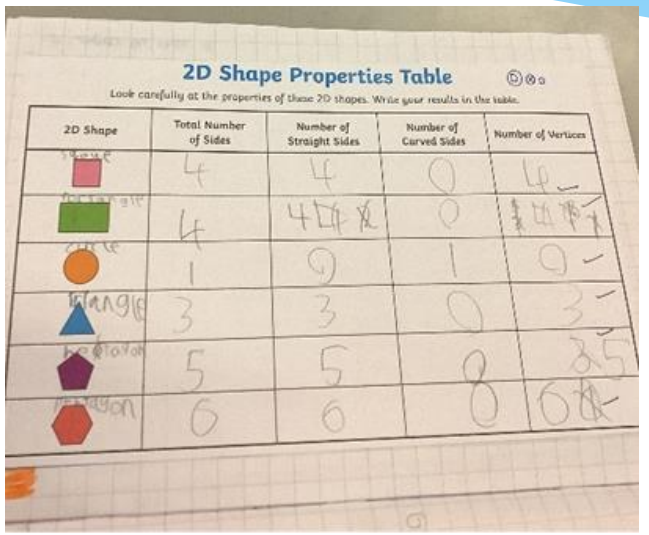
What does Maths look like in Year 1 and Year 2?

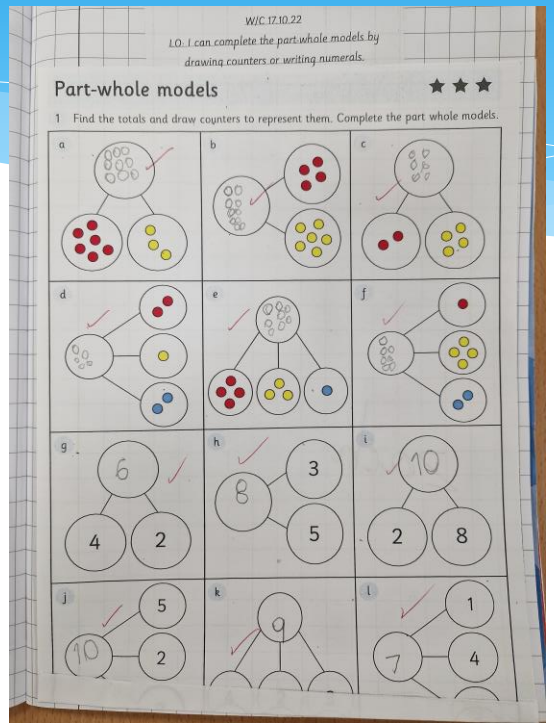
How is Maths taught at St Joseph's?

How can children be supported at home?

What does Maths look like in Year 1?

Number bonds to 10 and within 10.





Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.

To read time to O'clock and Half Past.

Count forwards and backwards in multiples of 2, 5 and 10.

To double numbers to 10.

Count within 100, forwards and backwards, starting with any number.

Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.

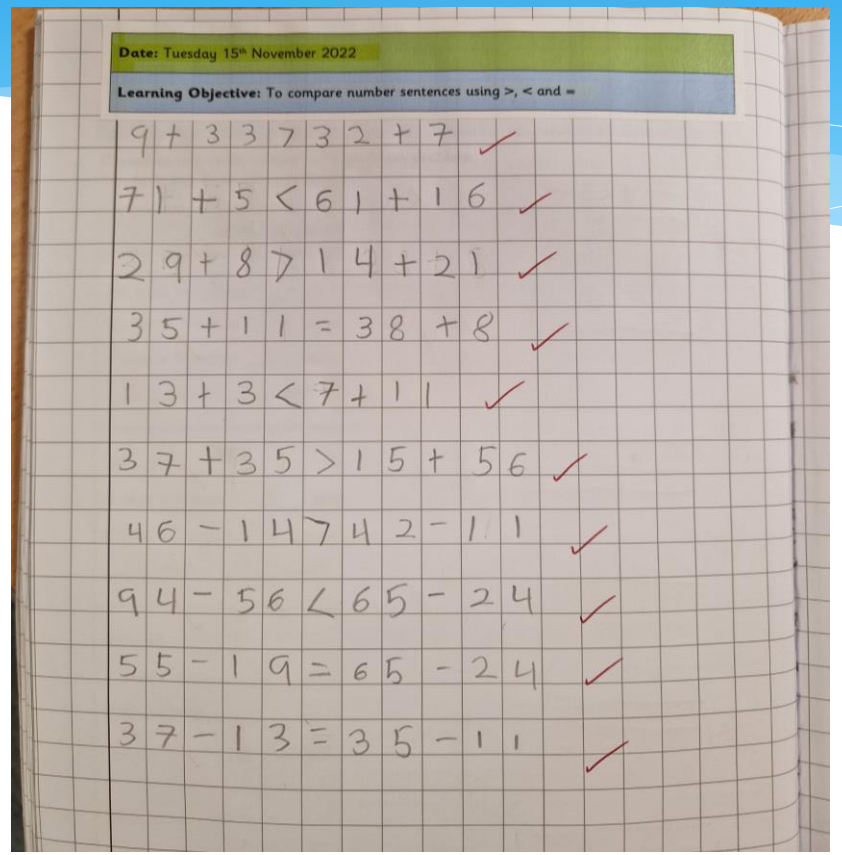
Read, write and interpret equations containing +, - and = symbols.

What does Maths look like in Year 2?

To read the time to the nearest five minutes

To describe the properties of 2D and 3D shapes and compare shapes by their properties

Recognise the subtraction structure of 'difference' and answer questions such as "How many more…?".



Practical learning using a variety of resources.

Recognise the place value of each digit in two-digit numbers.

Secure fluency in addition and subtraction facts within 10.

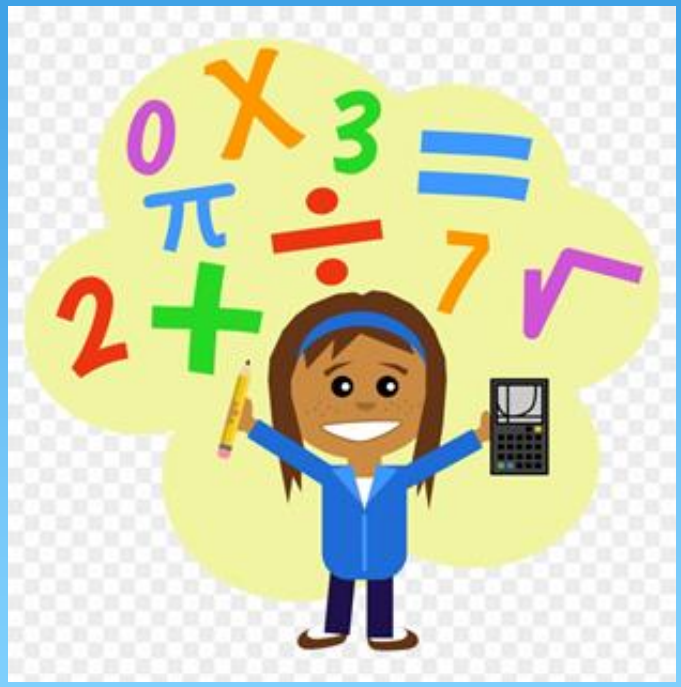
Add and subtract within 100 by applying one-digit addition and subtraction facts. To add and subtract any 2 two-digit numbers.

How is Maths taught at St Joseph's?

Our Calculation Policy

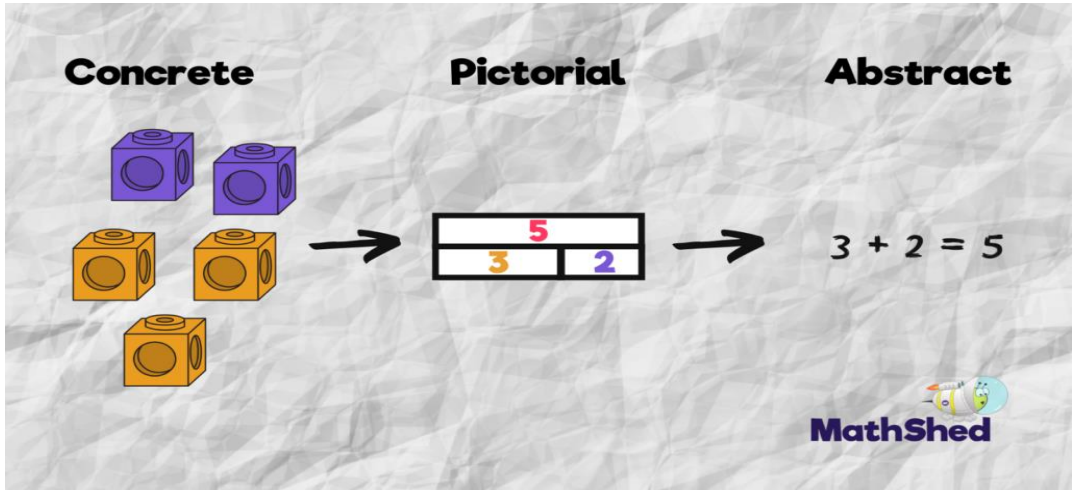
This document guides teachers through the **appropriate calculation methods within each year group** and the **progression** of skills **throughout the school**.

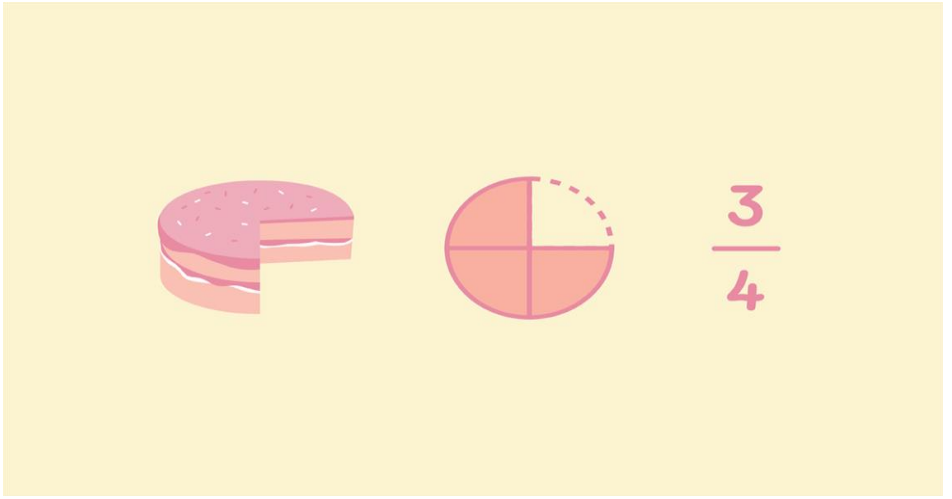
The content of this document is set out in year group blocks under the following headings: **addition, subtraction, multiplication and division**.



Concrete, Pictorial & Abstract

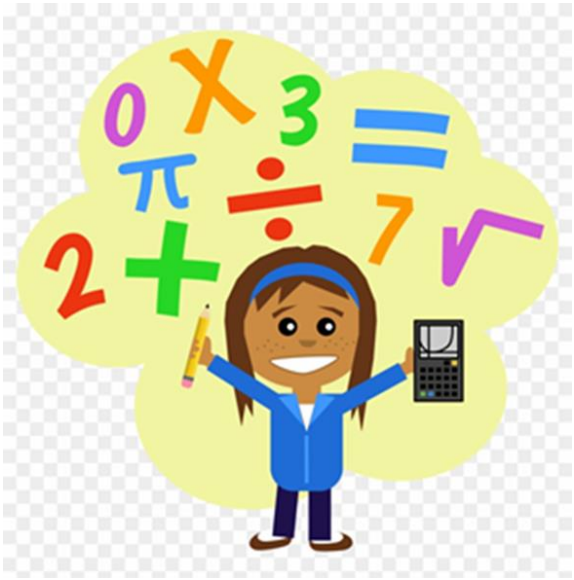
The Concrete Pictorial Abstract (CPA) approach is a system of learning that uses physical and visual aids to build a child's understanding of abstract topics. Pupils are introduced to a new mathematical concept through the use of concrete resources (e.g. fruit, Dienes blocks etc).





Questioning Children

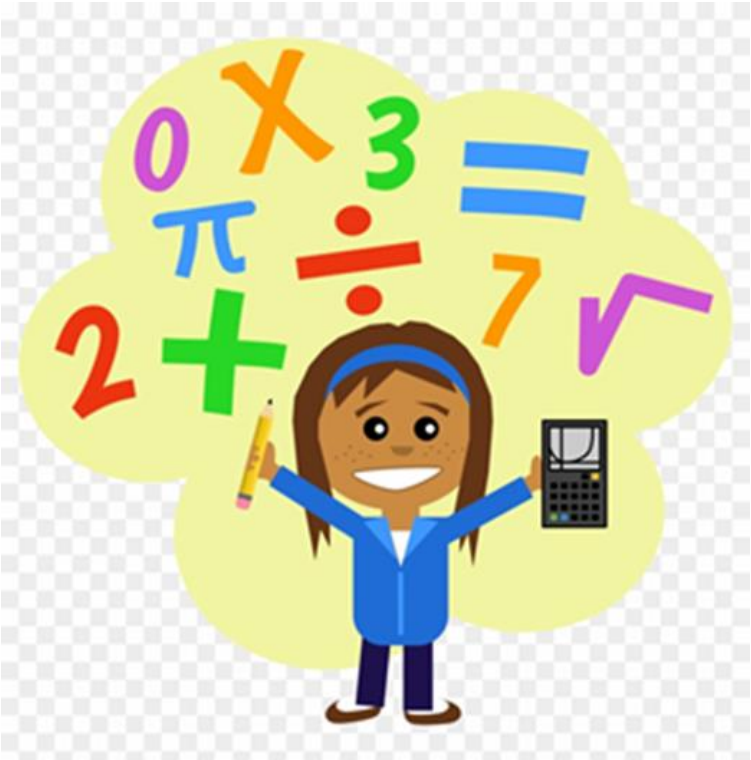
Good questions, and equally important, good listening, can help children make sense of Mathematics, build their confidence, and encourage mathematical thinking and communication. A good question opens up a problem and supports different ways of thinking about it. Some questions to try while helping a child might include:



- What do you already know about this?
- What do you need to find out?
- How might you begin?
- How can you organise your information?
- Can you draw a picture to explain your thinking?
- Are there other possibilities?
- What would happen if …?
- What do you need to do next?

Reasoning and Problem Solving

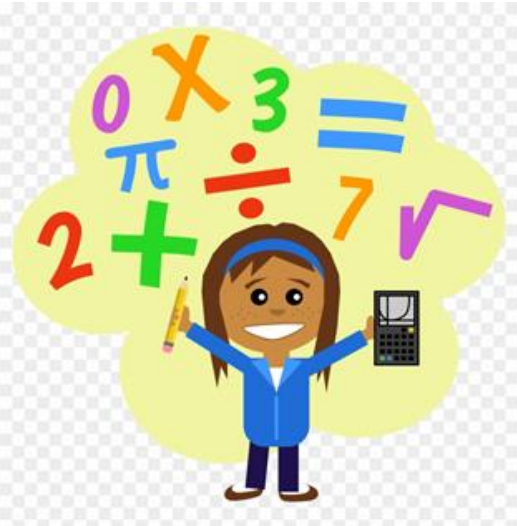
- What is ‘reasoning?’ Discuss!



Reasoning is…

The action of thinking about something in a logical, sensible way.

Progression in Reasoning



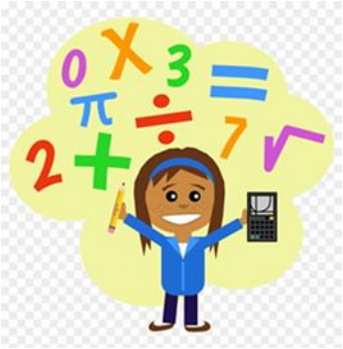
Describing	Simply tells what they did
Explaining	Offers some reasons for what they did (may or may not be correct)
Convincing	Confident that their chain for reasoning is right (inductive reasoning)
Justifying	A correct logical argument that has a complete chain of reasoning
Proving	A watertight argument that is mathematically sound (deductive reasoning)

NRICH (2014)

Times Tables & Number Bonds are extremely important!

In Year 1, pupils should be secure in number bonds for all numbers 1-15 and should count in 1s, 2s, 5s and 10s.

Timetables and their related division facts – at the end of KS1, then children are expected to have rapid recall of the 2, 5 and 10 times tables.



What is the same? What is different?

How do you know… Why do you know…

Explain why…

$$17 + 10 > 17 + 8$$

Is the statement true or false?

1 ten and 12 ones is greater than 2 tens.

How do you know?

How can you help your child with Maths at home?

* Take away their fear.
* Reassure and praise whenever possible. Positive mindset…
* Let them see you using Maths in your everyday routines – portioning meals between the family, chopping vegetables into halves and quarters etc.
* Play with numbers and shapes through games.
* Seeing mistakes as an opportunity to learn and using them as a discussion point.
* Recognising the **importance** and value of Maths in our everyday lives e.g. managing money and telling the time.

- Count - steps up the stairs, money into a money box etc
- Ask children to say how many without counting (5 or fewer)
- Play games using dice/dominoes and encourage child to say how many spots without counting.
- Ask children to set the table with enough knives, forks and plates for everyone.
- Spot numbers in the environment – on phones, microwaves, clocks, registration plates, doors.
- Ask children to think of their own representations for numbers eg one of them, two hands, three bears, four wheels on a car, five toes, six sides on a dice, seven dwarves, eight legs on an octopus etc
- Deliberately make mistakes. Children need to understand mistakes are normal and everyone makes them eg get mixed up when counting, muddle two numbers when ordering them.
- Watch Numberblocks on Cbeebies. This programme is written by maths specialists to model maths concepts and represents number brilliantly. Also, Numberjacks is excellent for solving problems.
- Hide numbers around the house or garden for children to find.
- Play outdoor maths games like hopscotch and skittles. Even better, let children make up their own games and decide how to score points.
- Read books with maths concepts eg The Very Hungry Caterpillar, One is a snail, ten is a crab, What's the time, Mr Wolf? The doorbell rang.
- Draw attention to more and less.

Maths at St Joseph's

Resources that I can use at home to support my child's maths understanding and learning.

Importance of Resources

Resources can be powerful tools to support sense making, mathematical thinking and reasoning skills.

They help our children to be able to practically engage with new learning and to support their ability to visualise new concepts and knowledge.

We apply a CPA approach to Maths learning which embeds the importance of using physical resources to support learning opportunities.
Read on to find out more about this approach.

Resources you can use at home

Alternatives to maths resources

Counters

or you could use……

Smarties

3D shapes

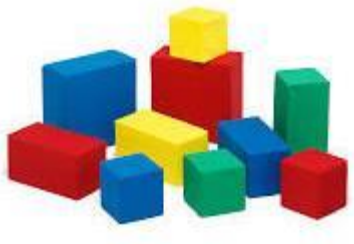
or you could use……

groceries

Counting Bears

or you could use……

anything you have a lot of!



You can use anything you have around the house

Pasta for counting

Cards for number recognition and counting

Chewits for counting

Magnetic numbers for number recognition

Toys to put in size order

Don’t Forget Outside

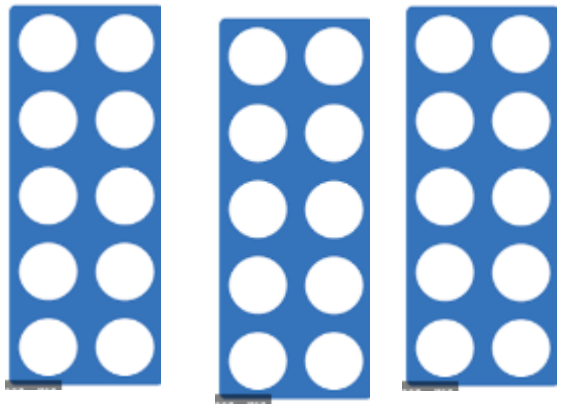
Counting in 2s and 10s

Numicon

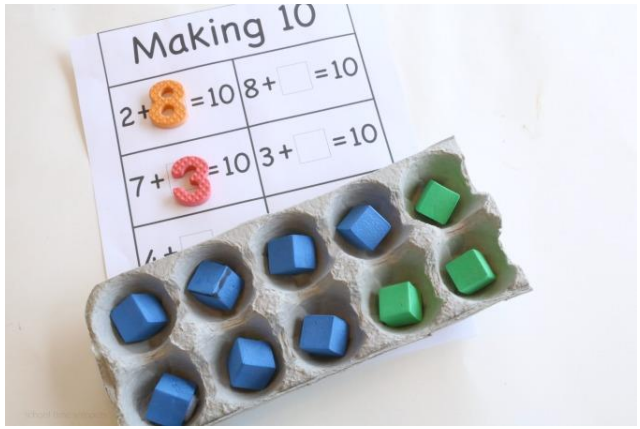
or you could use……

socks

Numicon



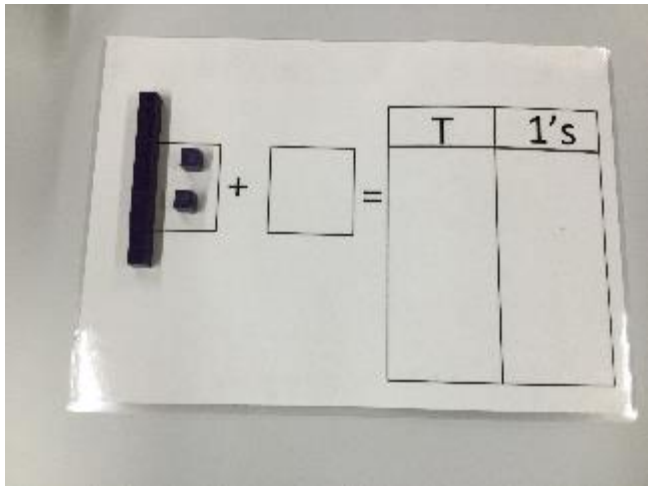
or you could use……

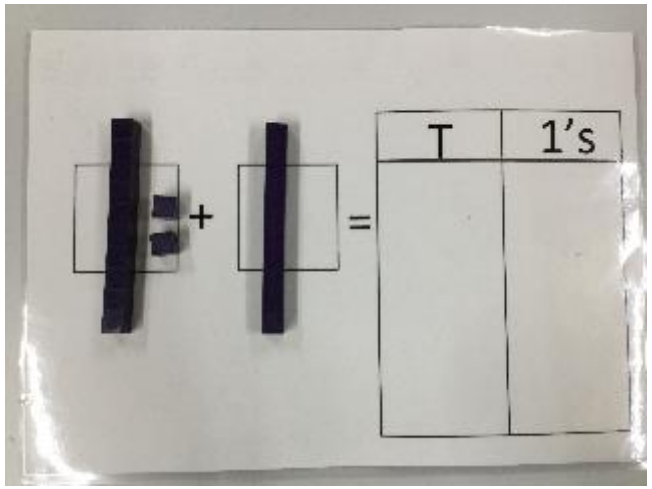


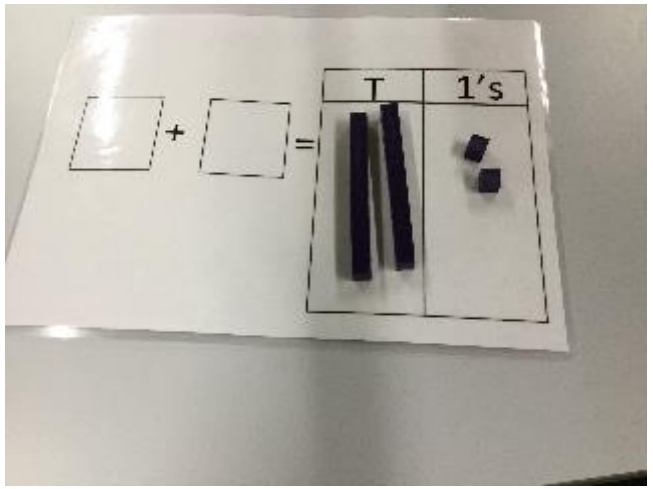
gloves

An example of an addition word problem being solved using dienes. This could be solved using sweets (e.g. Chewits)

Big skeleton goes to the shop to buy cakes. He buys 12 chocolate cakes and 10 cream cakes. How many does he buy altogether?







You could also use sticks as tens and stones as ones.

For greater or less than you could use…

For money work or problems you could use your own coins/ notes.

Websites to support children's Maths skills

- BBC Bitesize – lots of information alongside short videos help to make the learning enjoyable and accessible for all children. Particularly look out for 'Guardians of Mathematica'.
- I See Maths – a useful site with a plethora of ideas for fun games that all the family
- Primary Games Arena - It is a free website that encourages children to play online maths games linked to their home learning. It breaks the games down into concepts which is really helpful.
- Hit the Button – children love this game as it helps to increase confidence through practising times tables and number bonds.
- Maths Zone – this site is jam-packed with fun ways to learn more about Maths.

Thank you for listening.

Any questions?

We hope the workshop helps you understand how you can support your child at home.