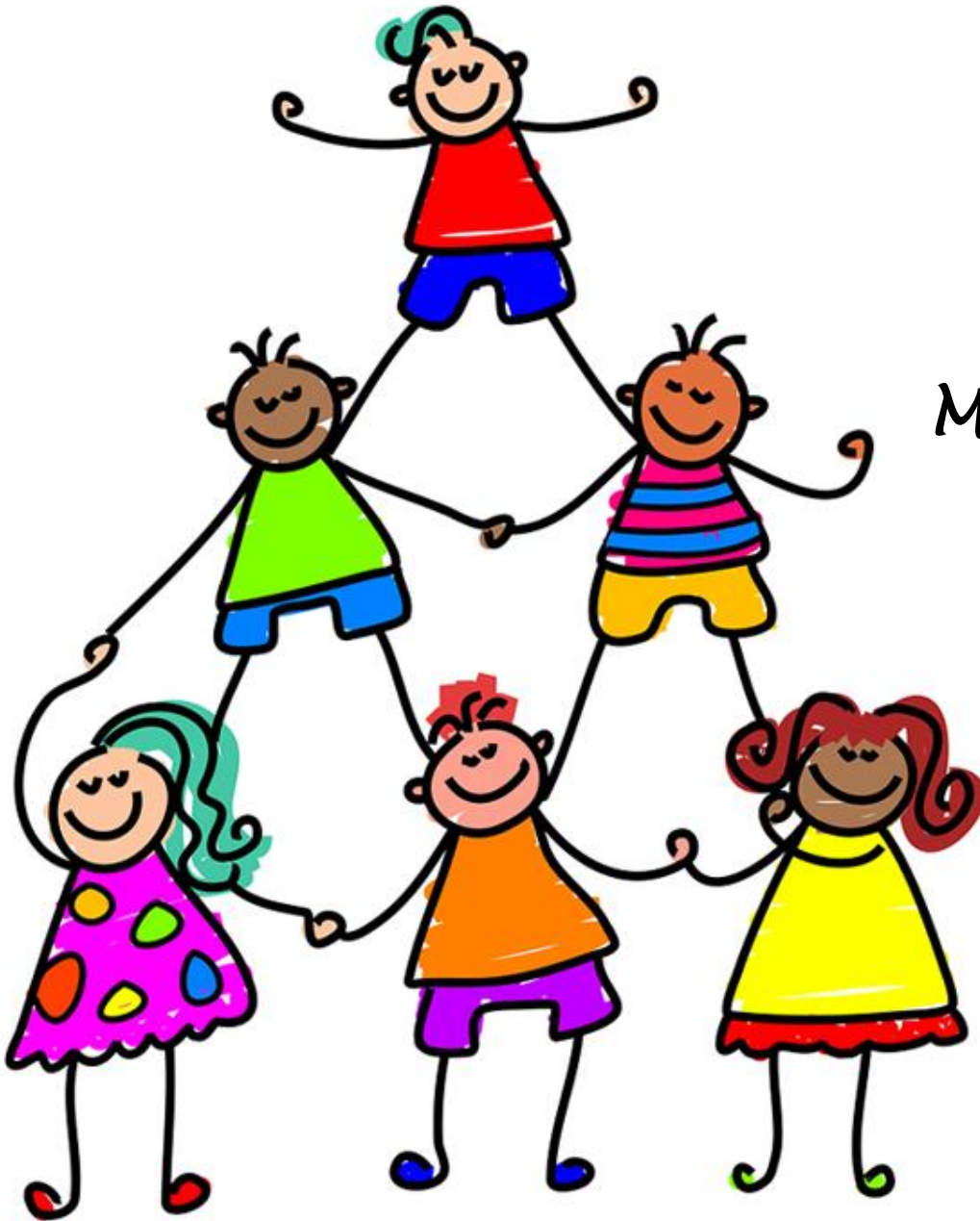




Year 1 Maths Workshop

January 2026





MISTAKES



ALLOW



THINKING TO



HAPPEN



MATH:

YOU SHOULD NOT ^{only} KNOW WHAT YOU ARE DOING. YOU SHOULD ALSO KNOW

WHY ≠ HOW

HARRY WONG



Our Mathematical Vision

At Streetsbrook we aim to make mathematical learning practical, **relevant and fun** and ensure children acquire the necessary knowledge, skills and **confidence to be successful mathematicians** now and into their future.



Our Curriculum Intent

Through our structured and well-planned Mathematics curriculum, children are supported to:

- **achieve a sound understanding** of the number system
- **become fluent** in the fundamentals of mathematics
- **reason mathematically** and be able to communicate their thinking using accurate mathematical vocabulary
- **solve problems** by applying their mathematical knowledge
- **make rich connections across mathematical ideas**, including applying their mathematical knowledge in other curriculum areas
- **develop and apply a growth mindset** in relation to their mathematical learning
- **enjoy mathematics!**



The National Curriculum

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non- routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.



Key Mathematical skills

- Number sense - a flexibility to work with numbers
- Use & apply key skills and knowledge
- Think and reason mathematically
- Conceptual understanding
- Generalise & find patterns
- Mathematical vocabulary
- Problem solver
- Estimate
- Fluent calculator - number facts knowledge (automaticity)
- Perseverance/resilience
- Risk-taker
- Positive responses to challenge

But there's something else ...



A Growth Mindset

In simple terms we want children to be brave and resilient in relation to maths. We want them to relish the challenges of learning and to understand that they learn from their mistakes.

We have a couple of key sayings to support this.

I can't do it....**yet**....

Mistakes grow your brain!





Growth Mindset - Key Messages for Parents

- Be encouraging, even if they are wrong.
‘Oh I see what you are thinking’... rather than... ‘No, that’s wrong!’
- **Don’t associate maths with speed** - this can lead to maths anxiety, especially in girls.
- Never share the idea that you were bad at maths at school or you dislike it.
Maths achievement has been shown to drop, particularly when mothers share this with daughters.
- Encourage number sense – a flexibility to work with numbers
- Think about the praise you give. *‘I like how you worked that out’... rather than... ‘You are just so clever at maths!’*
- Remind children that **‘mistakes’ grow their brain!**



A Mastery Curriculum

Mastery is an inclusive way of teaching that is grounded in the belief that all pupils can achieve in maths therefore the large majority of pupils progress through the curriculum at the same pace.

At Streetsbrook we have developed our own approach to maths teaching and learning. Based on the pedagogy of Mastery, our approach adapts as the children move through the school, in line with the development of their skills, abilities, confidence and independence.

A mathematical concept is deemed 'mastered' when learners

- can **represent it in multiple ways**
- can **communicate solutions using mathematical language**
- can **independently apply the concept to new problems**



What will my child be learning when?

Please see our website for an overview for what will be taught each half term

www.streetsbrook.co.uk

Spring 1	Number: Place Value - Count to and across 100 beginning with 0 or one, or from any given number. - Count backwards from 100 to any given number. - Count, read and write numbers to 100 in numerals. - Given a number identify one more or one less. - Focus on how many more are needed to reach a specific total. - Begin to recognise sequences forwards/backwards, odd and even, explore missing number. - Explore counting in multiples	Number: Addition and Subtraction - Represent and use number bonds and related subtraction facts within 20. - Add and subtract one digit numbers to 20, including zero. - Read, write and interpret mathematical statements involving (+), (-) and (=) signs. - Solve one step problems that involve (+) and (-), using concrete objects and pictorial representations - Focus on the = sign meaning 'the same as' not the total. - Add and subtract using monetary amounts.	Time - Tell the time to the hour and draw the hands on a clock face to show these times. - Tell the time to half past the hour and draw the hands on a clock face to show these times. - Compare, describe and solve practical problems for time.
Spring 2	Number: Multiplication and Division - Solve one-step problems involving multiplication, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. - Solve one-step problems involving division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. - Counting in multiples and repeated addition - Introduction to multiplication and division. - Money – total groups of 2ps, 5ps, 10ps	Time - Order a sequence of events within a day. - Recognise, name and write the days of the week in order. - Recognise, name and begin to write the months of the year in order. - Use language of time: before, after, yesterday etc.	Geometry: Position Describe position of objects.



KS1 Maths lessons

Main Lesson structure – 40- 60 minutes daily + Mastering Number

Problem Starter / Fluency Starter

Problem Starter - applying existing knowledge in a new or alternative context and explaining thinking

Fluency starter - an opportunity to practise and improve key knowledge e.g. KIRFs

Practical Phase

Working with concrete (or pictorial) resources to teach a new concept or embed a concept currently being taught.

Recording Phase

Working more independently, adapted to meet the needs of learners

Reflection Phase

Questioning and reasoning aimed at reinforcing key learning and vocabulary, exposing children to alternative presentations of the learning or an opportunity to apply the learning



MASTERING NUMBER



NCETM

NATIONAL CENTRE FOR EXCELLENCE
IN THE TEACHING OF MATHEMATICS

This project aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future.

Watch:

www.ncetm.org.uk/maths-hubs-projects/mastering-number/





Talking about maths

SENTENCE STEMS

**STREETSBROOK
SA
ACADEMY**

Speech bubble icon:

- I solved the problem by...
- I can check my answer by...
- I can prove it by...
- I can check my answer by...

Speech bubble icon:

- I know that...
- I noticed that...
- I found that...
- I compared...

Lightbulb icon:

- I can check my answer by...
- Another way to solve it is...
- My answer makes sense because...

Plus and minus icons:

- I know that... is greater than/less than ...
- ... is made up of ... tens and ... ones
- ... is a part and ... is a part
- I added/subtracted...

Cross and plus icons:

- I have ... groups of...
- I have ... lots of ...
- I can share ... between ... equally
- I multiplied/divided...

Object and ruler icons:

- The object is heavier/lighter/longer /shorter than...
- I know it's a ... because...
- This shape has ... sides and ... corners.

Children need to be able to communicate this understanding using mathematical language.

Maths sessions at Streetsbrook include lots of opportunities to talk about maths.

Sentence starters are often used to open up discussion.



Adaptive Teaching Approach

- **Adapt and support**
- **Challenge and extend**

Adaptive Teaching	Factors to consider
C ontent	Teaching/Learning Objective(s), Prior Learning
P resentation	Teaching, Resources, Vocabulary, Questioning
E nvironment	Staffing, Grouping, Location, Time, Supporting Resources
E xpectation	Task, Modelling/Scaffolding, Outcome, Success Criteria, Feedback



What about more able children?

- Emphasis is on deep knowledge, sometimes called Greater Depth (**rather than acceleration**)
- Children who grasp concepts rapidly are challenged through rich and sophisticated **problem-solving opportunities** where they are required to **communicate their understanding** and/or **represent and apply their understanding in a variety of ways**.



What about children who need more help with Maths?

- Additional planned support within lessons
- Same day or follow up 'catch up' sessions
- Supplementary maths intervention programmes where needed
- Small group work
- Targeted questioning



End of year expectations Year 1

The links below contain Curriculum Overviews for each half term.



Childcare
Curriculum
Overview for
Parents



Nursery
Curriculum
Overviews for
Parents



Reception
Curriculum
Overviews for
Parents



Year 1
Curriculum
Overviews for
Parents



Year 2
Curriculum
Overviews for
Parents

[Click here to view Information Evening Presentations - September 2024](#)



[Curriculum Policy](#)



[End of Year 1 Expectations](#)



[End of Year 2 Expectations.pdf](#)

[Pre Key Stage Standards](#)



[The National Curriculum](#)

The national curriculum provides pupils with an introduction to the essential knowledge that they need to be educated citizens. It introduces pupils to the best that has been thought and said; and helps engender an appreciation of human creativity and achievement.



[FAQs about RSE Changes](#)



Maths

Children who are working **at the expected standard** for their age are assessed as **expected**. This means that they are able to do the following:

Number and place value

- counts to and across 100 beginning with 0 or one, or from any given number
- count backwards to and across 100 from any given number
- count, read and write numbers to 100 in numerals
- count in multiples of twos, fives and tens
- given a number, identify one more or one less

Addition and subtraction

- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit numbers to 20, including zero
- add and subtract two-digit number to 20, including zero

Multiplication and division

- solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
- solve one step problems involving division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Fractions and decimals

- recognise, find and name a half as one of two equal parts of a quantity
- recognise, find and name a half as one of two equal parts of an object or shape
- recognise, find and name one quarter as one of four equal parts of a quantity
- recognise, find and name a quarter as one of four equal parts of an object or shape

Measurement

- compare, describe and solve practical problems for length and height, mass and weight, capacity and volume
- compare, describe practical problems for time
- tell the time to the hour and draws the hands on a clock face to show these times
- tell the time to half past the hour and draws the hands on a clock face to show these times

Geometry

- recognise and name common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres

If a child can do some of the above, but not all, they are assessed as **working towards** the expected standard.

Children who are working at a **greater depth** within this expected standard are assessed as **working at greater depth**. This means that they can do all of the above independently and competently and:

- are able to reason and make corrections to other areas of maths and have the insight, fluency and flexibility to apply the mathematics to unfamiliar contexts and problems



Why do we use *Concrete Resources*?

- Allows children to 'see the maths'

What does 43 look like? How does it compare to 34 or other numbers?

- Supports transition to /aids understanding of abstract questions

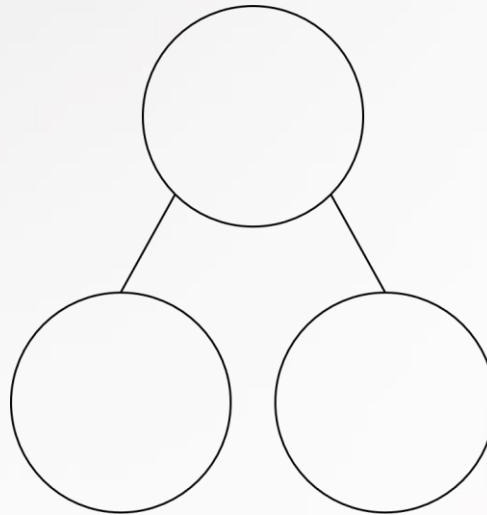
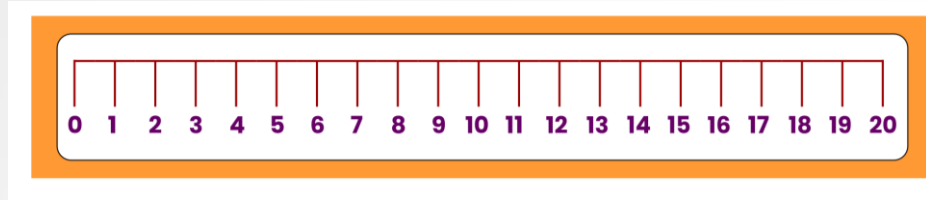
- Promotes deep knowledge

"A pupil, who has worked out the answer using an abstract method, can be challenged to use concrete manipulatives to convince others that they are correct."

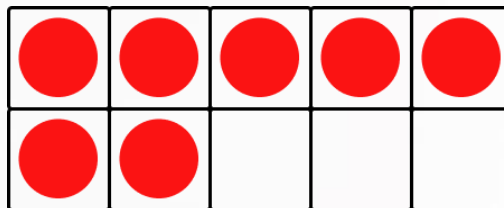
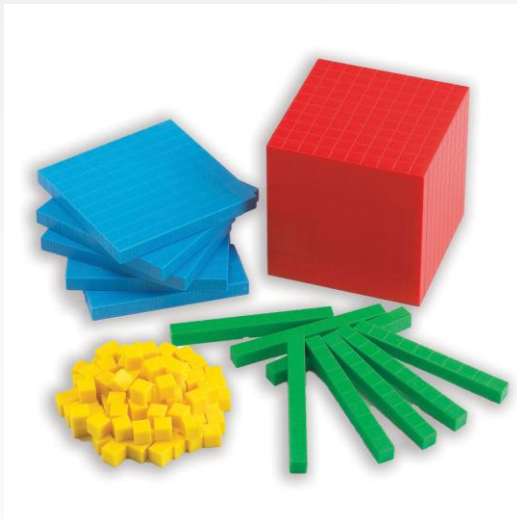
- Provides staff with a 'window' on a child's thinking



What we use in school...

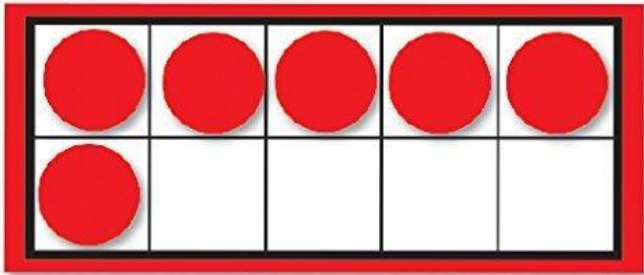


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100





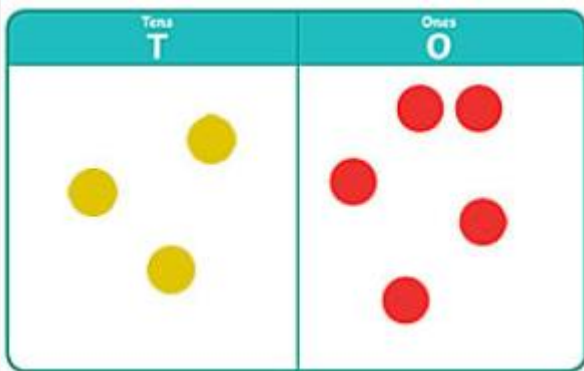
*Some key resources which help children
'see the maths'*



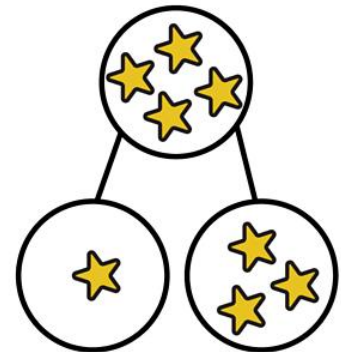
ten frame and counters



numicon



place value
counters



part, part,
whole model



Concrete-Pictorial-Abstract Progression(CPA)

Once children are confident with a concept using concrete resources, they progress to drawing pictorial representations or quick sketches of the objects. By doing this, they are no longer manipulating the physical resources, but are still benefiting from the visual support the resources provide.

Once children have a secure understanding of the concept through the use of concrete resources and visual images, they are then able to move on to the abstract.

Although children can be taught the method without understanding the maths behind it, this can lead to confusion errors and difficulties with retaining or remembering the skills.

A photograph of a child's work on a piece of paper. At the top, the equation $65 + 27 =$ is written in blue ink. Below it, the number 65 is represented by six vertical purple lines and a 'T' symbol above them. The number 27 is represented by two vertical purple lines and a '0' symbol above them. A plus sign is written to the left of the 27. Below the pictorial representations, there are two horizontal lines for the answer.

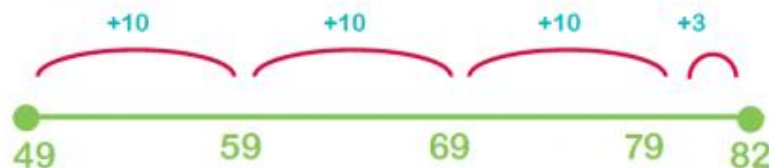


How else do we support calculation?



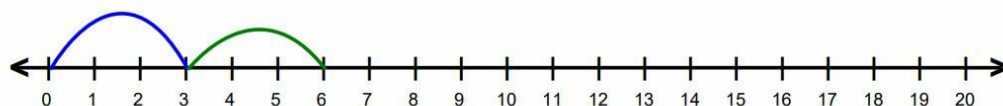
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$82 - 49 =$$

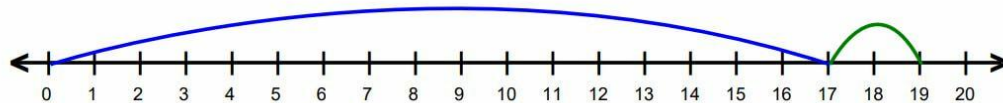


$$10 + 10 + 10 + 3 = 33$$

Children use number squares and number lines to support calculation and will be encouraged to begin to calculate mentally where appropriate.



$$3 + 3 = 6$$



$$17 + 2 = 19$$

Key Instant Recall Facts

(KIRFs) For more information
see our website

[https://www.streetsbrook.co.uk/
maths-at-streetsbrook/](https://www.streetsbrook.co.uk/maths-at-streetsbrook/)



How can concrete manipulatives be used to support understanding?

Place Value (stop at 2.15)

www.youtube.com/watch?v=vBIZal-8Kr4&list=PLWIJ2KbiNEypIzvd0-OU48R3KSq3ywhV

* Most of these videos are presented by the daughter of the Maths Lead at a local primary school



Maths 4 Kids

www.youtube.com



How can you help?

- Puzzles and games – especially anything with a dice ...Have fun!
- Be encouraging, even if they are wrong (encourage resilience when challenged)
- Don't associate maths with speed
- Never share the idea that you were bad at maths at school or you dislike it
- Encourage number sense – a flexibility to work with numbers
- Think about the praise you give
- Remind children that 'mistakes' grow their brain
- Support children in learning and understanding Key Instant Recall Facts (KIRFs) such as number facts and times tables - aim for automaticity
- Ask them to explain their ideas, thinking, working out
- Value the process as well as the answer
- Make the most of real maths – money, time, measurement ...
- Help them enjoy maths!



How can I help at home ?

- **Games:** 'Snakes & Ladders', Dominoes - Invaluable for developing number sense
- **Setting the table,** how many people, how many knives, etc.
- **Sorting the washing by size, colour etc.**
- Can you cut your toast into squares, triangles, in half?
- **Pocket money** – coin recognition, shopping
- Maths through songs , rhymes and stories
- **I Spy** (shapes, colours, size,)
- Lots of apps and websites aimed at making maths fun
- Support your child in embedding Key Instant Recall Facts (KIRFs) For more information see our website <https://www.streetsbrook.co.uk/maths-at-streetsbrook/>

Maths is everywhere! Enjoy it and so will your child!



How can I help outdoors?

- **Outdoor games** - Hop Scotch, Hide and Seek , Den Building, Hunt the number...
- **Estimating** - leaves on a branch, conkers in a pile, how long it will take to run up the garden and back...
- **Compare/order by size/weight/length/ capacity** - leaves, twigs, stones, shells, sand water...
- **Look for patterns/ shapes** - fencing, roofing, buildings...
- **Environmental numbers** - car number plates, house numbers, buses...
- **I Spy** (shapes, colours, sizes)

Maths is everywhere! Enjoy it and so will your child!



Websites we recommend...

Online parental advice and activities for children

www.topmarks.co.uk/maths-games

www.nationalnumeracy.org.uk

www.bbc.co.uk/bitesize/subjects/zjxhfg8



[Numberblocks - CBeebies – BBC](#)





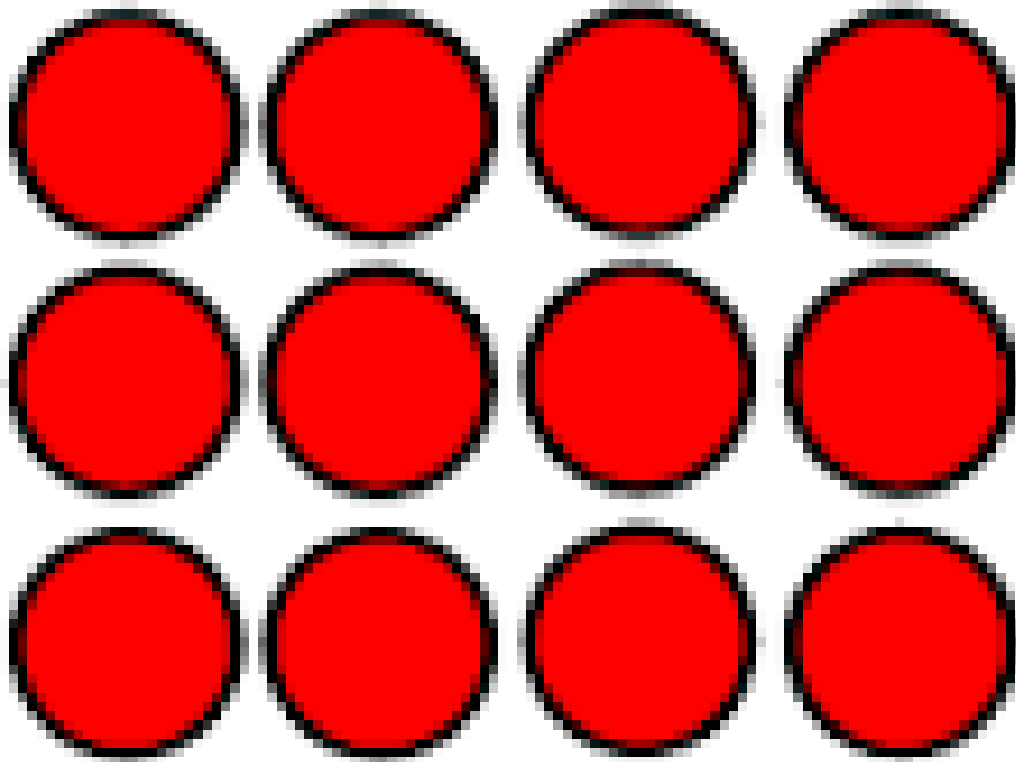
Questions...





It's your turn!

What do you see?



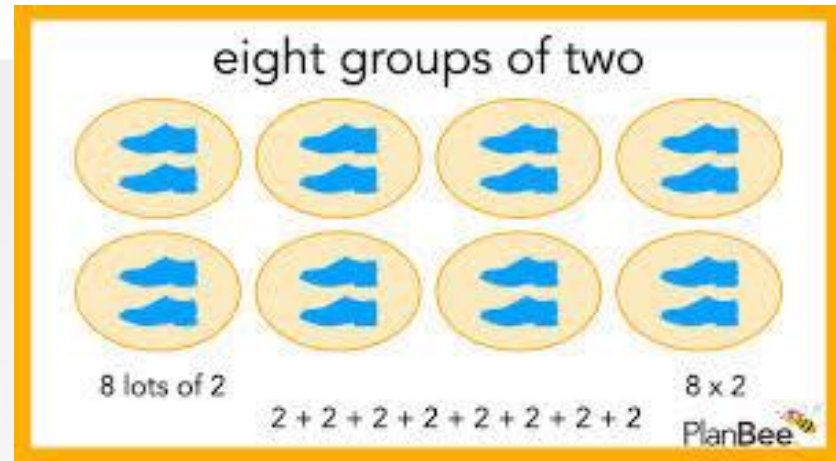
How we would use this in school...



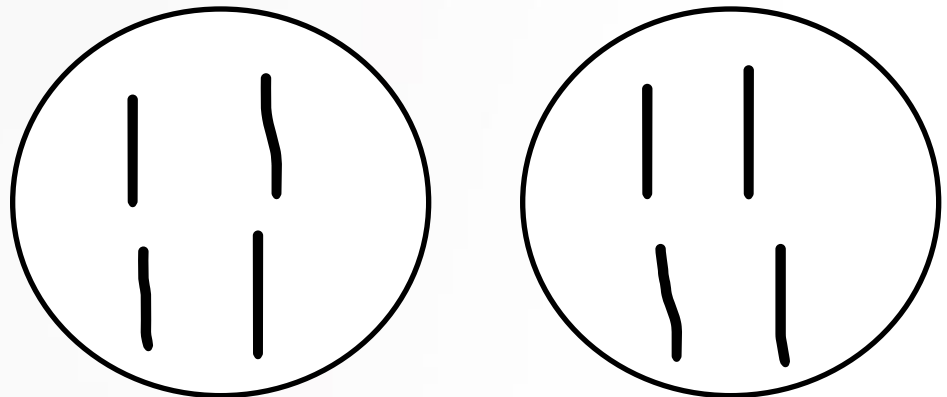


Coming up soon...

- Time
- Division
- Multiplication



$$8 \div 2 = 4$$





Set 1

ADDITION AND SUBTRACTION

Thinking Tom says;

" $5 + 4$ is the same as $4 + 5$."



Thinking Tanya says;

" $5 + 4$ is the same as $6 + 3$."



Who is right?

What do you think?

Convince Me!



It's your turn!

Using the Tens and Ones frames in front of you.

21

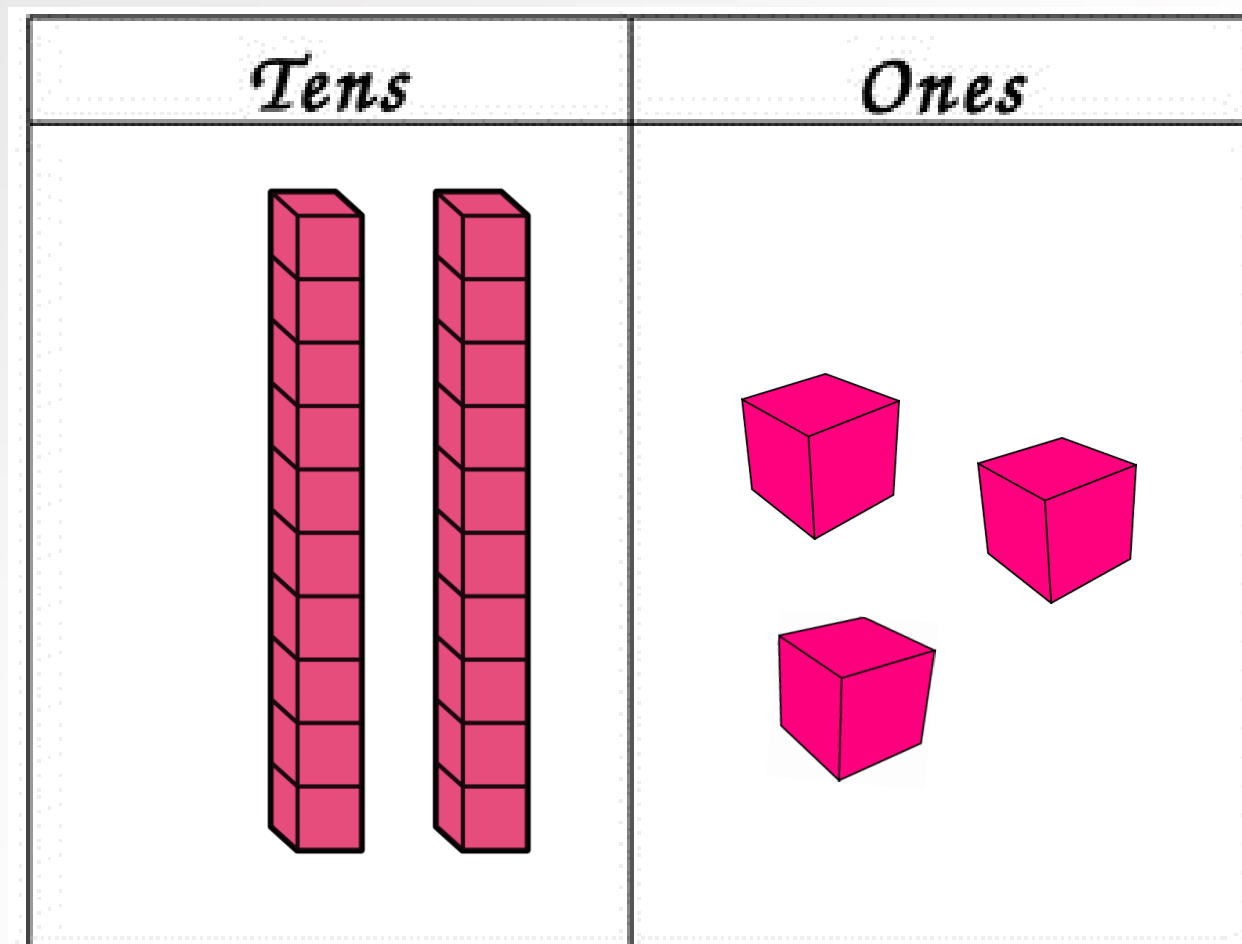
16

33

45

38

13





It's your turn!

Can you represent these numbers using jottings?

11

23

38

41

56

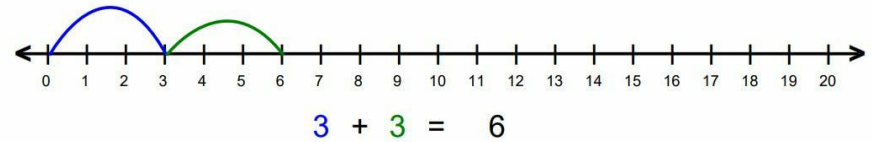
12

1:





It's your turn!



Using the resources on your table can you solve and prove these number sentences...

$$12 - 6 =$$

$$13 - 5 =$$

$$12 + 7 =$$

$$10 - 7 =$$

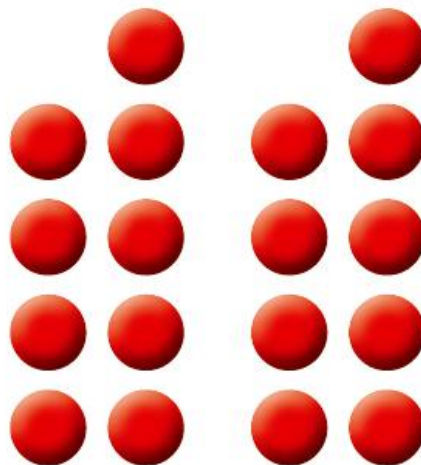
$$5 + 9 =$$

$$4 + 3 =$$

NUMBER AND PLACE VALUE?

Thinking Tom says;

"I know there are less than 20 counters here without counting them all."



What do you think?

Convince Me!

NUMBER AND PLACE VALUE?

Thinking Tom says:

"I can explain what is the same about these two numbers and what is different."

8

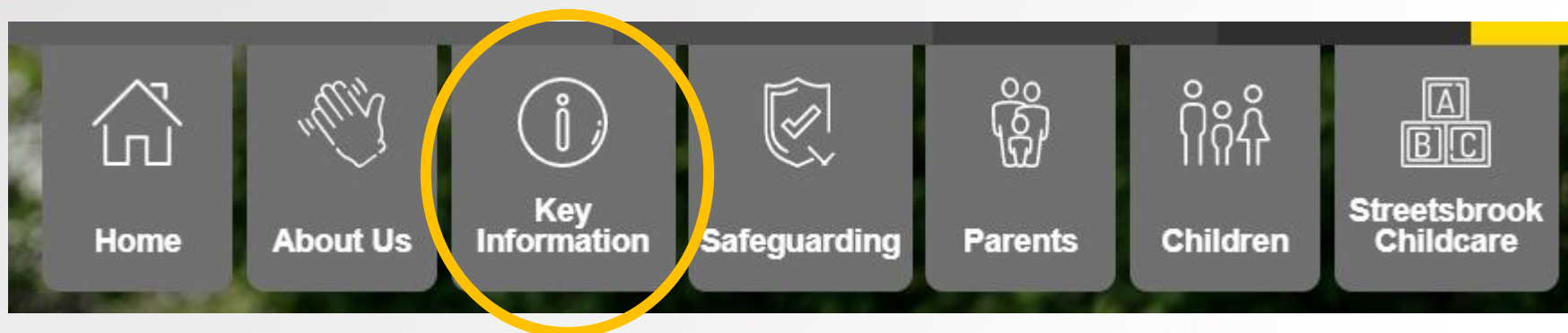
18

Can you explain the difference?

Convince Me!



Streetsbrook Website



Curriculum

Please see our website
www.streetsbrook.co.uk
or contact Miss Cartwright



English at
Streetsbrook



Maths at
Streetsbrook



PSHE at
Streetsbrook

