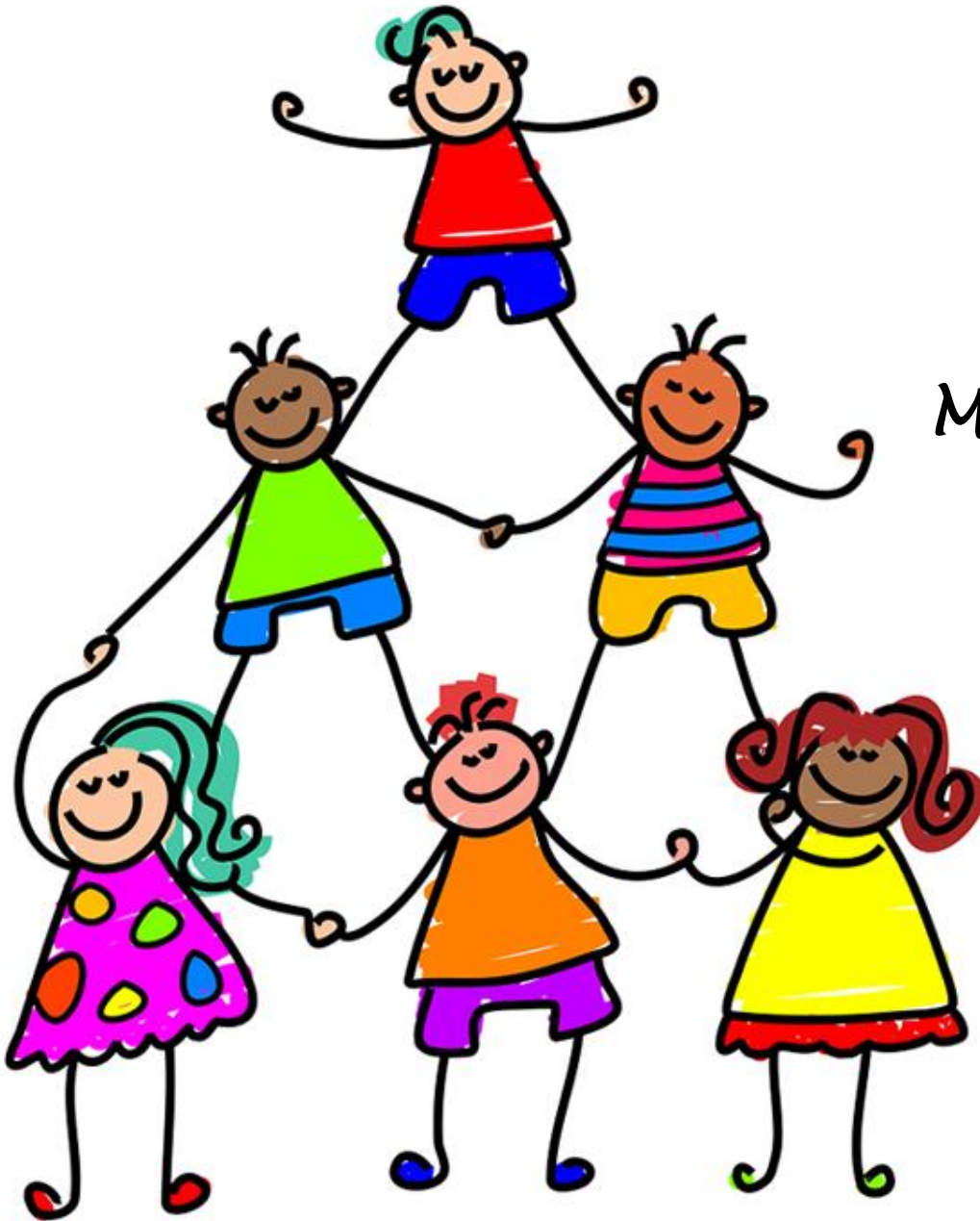




Year 1 Maths Workshop

January 2026





Our Mathematical Vision

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.





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.



Our Maths 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!**

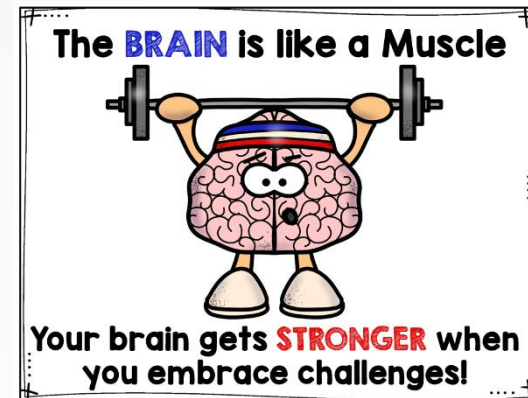


What is a Growth Mindset ?

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!**



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

Streetsbrook Infant & Early Years Academy Maths Curriculum Overview - Year 2

Autumn 1	<u>Number: Place Value</u> - Count in steps of 2, 3 and 5 from 0 and in 10's from any number – forward and backward. - Recognise the place value of each digit in a 2 digit number. - Compare and order numbers from 0-100 - Use $<$ $>$ and $=$ signs correctly - Use place value and number facts to solve problems. - Recognise odd and even numbers - Identify and represent numbers using different representations including the number line.	<u>Number: Addition and Subtraction</u> - Solve problems with $+$ and $-$ using concrete objects and pictorial representations, including those involving numbers, quantities and <i>measures</i>. - Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods. - Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2 digit number and ones. - Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2 digit number and 10's. - Add and subtract numbers using concrete objects, pictorial representations and mentally, including two 2 digit numbers. - Add and subtract numbers using concrete objects, pictorial representations and mentally, including adding 3 one digit numbers.	<u>Measures: Length and Height</u> - Compare and order lengths. - Reason about relationships between lengths/heights. - Choose and use appropriate standard units (m / cm) - Measure to the nearest labelled unit using rulers.
Autumn 2	<u>Multiplication and Division</u> - Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables. - Solve problems involving multiplication using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in context. - Solve problems involving division using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in context. - Count in multiples of 3 to at least 30. - Make connections between multiplication and division by 2, doubling and halving.	<u>Measurement: Weight</u> - Compare and order weights. - Choose and use appropriate standard units (g/kg) - Measure to the nearest labelled unit using scales.	<u>Number: Place Value</u> - Count in steps of 2, 3 and 5 from 0 and in 10's from any number – forward and backward. - Recognise the place value of each digit in a 2 digit number. - Compare and order numbers from 0-100 - Use $<$ $>$ and $=$ signs correctly - Use place value and number facts to solve problems. - Recognise odd and even numbers - Identify and represent numbers using different representations including the number line. - Application of place value - missing number problems, how many more/less?



Talking about maths

SENTENCE STEMS

**STREETSBROOK
SA
ACADEMY**

Top Left (Pink box):
I solved the problem by...
I can check my answer by...
I can prove it by...
I can check my answer by...

Top Right (Yellow box):
I know that...
I noticed that...
I found that...
I compared...

Middle Left (Purple box):
I can check my answer by...
Another way to solve it is...
My answer makes sense because...

Middle Right (Teal box):
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...

Bottom Left (Orange box):
I have ... groups of ...
I have ... lots of ...
I can share ... between ... equally
I multiplied/divided...

Bottom Right (Green box):
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.



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**



KS1 Maths lessons

Main Lesson structure – 40- 60 minutes

Problem Starter / Fluency Starter

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

Flashback starter – recapping a previous concept

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



End of year expectations Year 2 Teacher Assessment Framework (TAF)

Working towards the expected standard

The pupil can:

- read and write numbers in numerals up to 100
- partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources¹ to support them
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus (e.g. $23 + 5$; $46 + 20$; $16 - 5$; $88 - 30$)
- recall at least four of the six² number bonds for 10 and reason about associated facts (e.g. $6 + 4 = 10$, therefore $4 + 6 = 10$ and $10 - 6 = 4$)
- count in twos, fives and tens from 0 and use this to solve problems
- know the value of different coins
- name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres).

Working at the expected standard

The pupil can:

- read scales* in divisions of ones, twos, fives and tens
- partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus
- add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. $48 + 35$; $72 - 17$)
- recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If $7 + 3 = 10$, then $17 + 3 = 20$; if $7 - 3 = 4$, then $17 - 3 = 14$; leading to if $14 + 3 = 17$, then $3 + 14 = 17$, $17 - 14 = 3$ and $17 - 3 = 14$)
- recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary
- identify $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{4}$ of a number or shape, and know that all parts must be equal parts of the whole
- use different coins to make the same amount
- read the time on a clock to the nearest 15 minutes
- name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.

Working at greater depth

The pupil can:

- read scales* where not all numbers on the scale are given and estimate points in between
- recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts
- use reasoning about numbers and relationships to solve more complex problems and explain their thinking (e.g. $29 + 17 = 15 + 4 + \square$; 'together Jack and Sam have £14. Jack has £2 more than Sam. How much money does Sam have?' etc.)
- solve unfamiliar word problems that involve more than one step (e.g. 'which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?')
- read the time on a clock to the nearest 5 minutes
- describe similarities and differences of 2-D and 3-D shapes, using their properties (e.g. that two different 2-D shapes both have only one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices, but different dimensions).



Standard Attainment Tests (SATs)

Year 2 – May/June

Non-Statutory curriculum tests (SATs) at Key Stage 1



What about children who need more help with Maths ?

- Additional planned support within lessons
- Small group work with an adult
- Targeted questioning
- Mixed ability pairing
- Use of concrete resources
- Additional provision where appropriate



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**.



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.

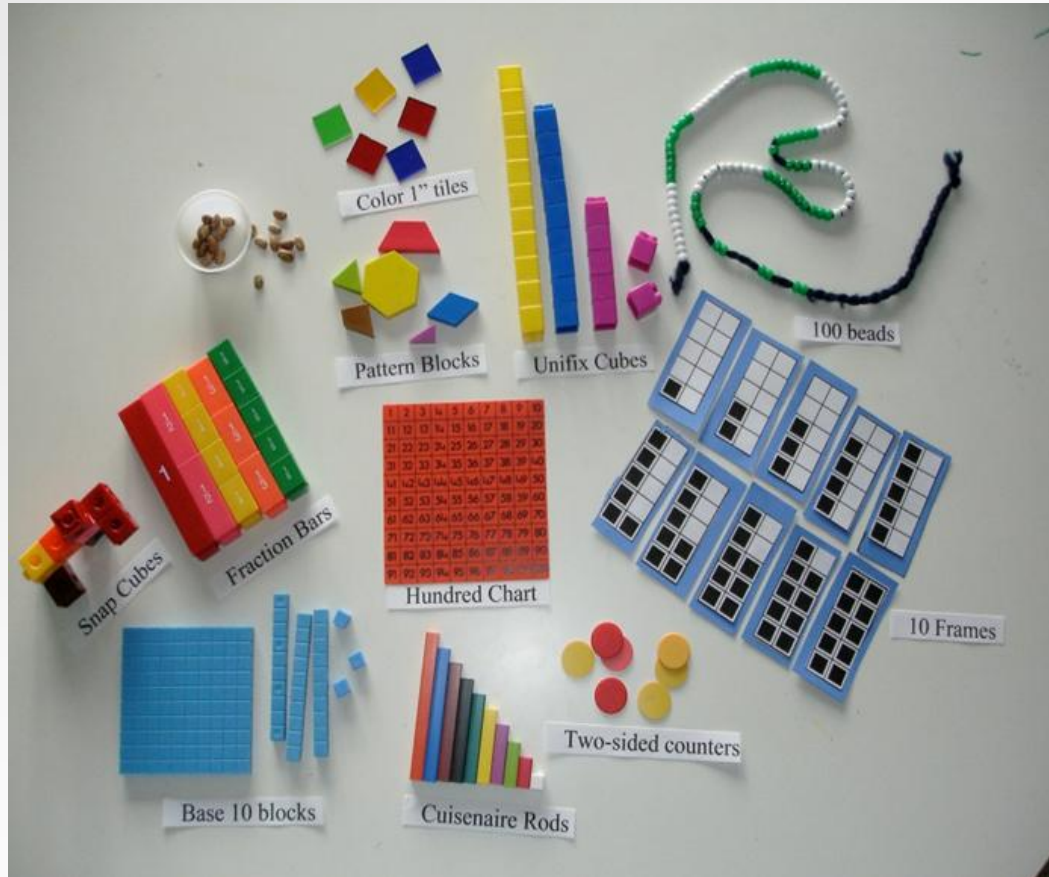
Watch:

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





Concrete Resources



A mastery teaching approach encourages children of all ages to keep using these concrete resources.



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

43

+ 21

23 – 15

- 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



Concrete-Pictorial-Abstract Progression(CPA)

$$65 + 27 =$$

	T	O
		...
+		...

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.

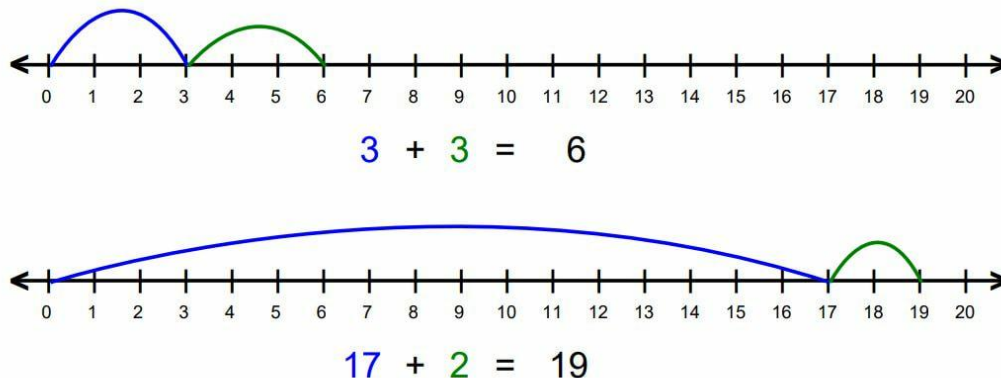
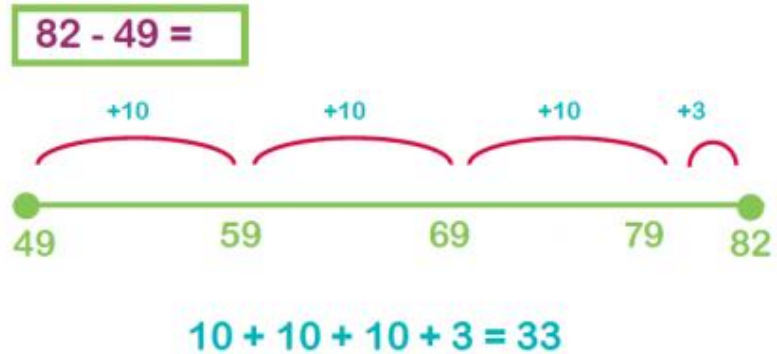


How else do we support calculation ?

Pictorial/visual



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



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 you help?

Physical support:

- Puzzles and games – especially anything with a dice ...Have fun!
- Encourage number sense – a flexibility to work with numbers
- 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
- Make the most of real maths – money, time, measurement ...
- Refer to report targets
- Homework

Wellbeing support:

- Don't associate maths with speed
- Never share the idea that you were bad at maths at school or you dislike it
- Be encouraging, even if they are wrong (encourage resilience when challenged)
- Value the process as well as the answer
- Remind children that 'mistakes' grow their brain
- Think about the praise you give
- Help them enjoy maths!



Can you recommend any websites?

Online parental advice and activities for children

home.oxfordowl.co.uk

www.topmarks.co.uk/maths-games

www.nationalnumeracy.org.uk

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

[Numberblocks - CBeebies – BBC](#)



How can concrete manipulatives be used to support understanding?

Place Value

www.youtube.com/watch?v=vBIZal-8Kr4&list=PLWIJ2KbiNEyplZvdo0-OU48R3KSq3ywhV

Addition

www.youtube.com/watch?v=hHM25Nx4vhg

Subtraction

www.youtube.com/watch?v=pADFYrGdyYE

Multiplication using arrays, in KS1

www.youtube.com/watch?v=8ooE6XAelTI

Division by Sharing and Grouping

www.youtube.com/watch?v=bdgIIPNNhul



Maths 4 Kids

www.youtube.com

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



It is your turn!





Place Value

Tens

Ones





Addition

$$14 + 24$$

$$26 + 31$$

Dienes and place value charts





Subtraction

$$26 - 14$$

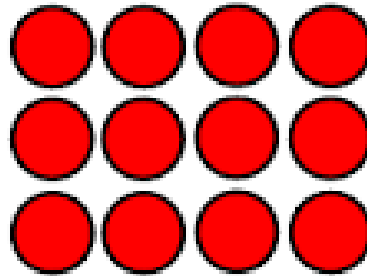
$$32 - 11$$

Dienes and place value charts





Multiplication and Division



Arrays on whiteboards

Sharing circles on whiteboards



Money

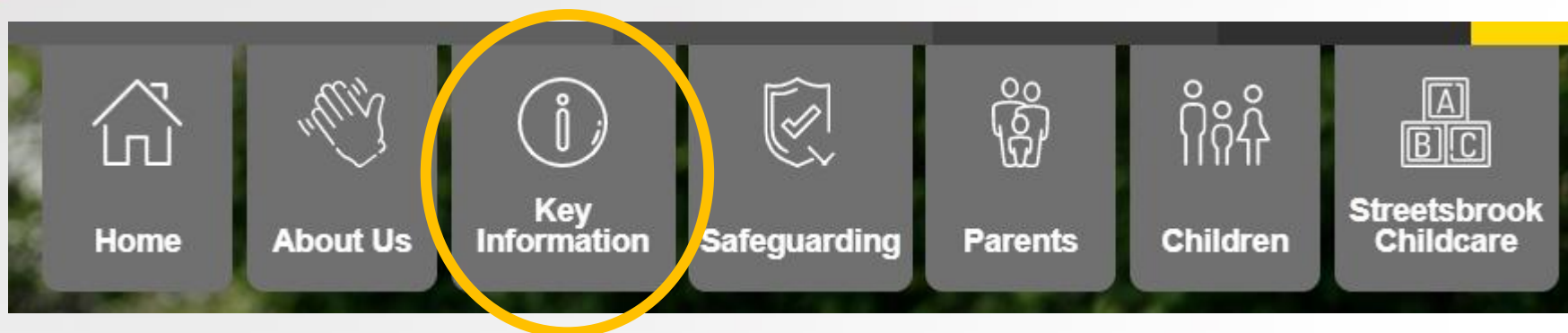
How many ways
can you make
26p?

Coins and whiteboards





Streetsbrook Website



Curriculum

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



English at
Streetsbrook



Maths at
Streetsbrook



PSHE at
Streetsbrook





Questions...

