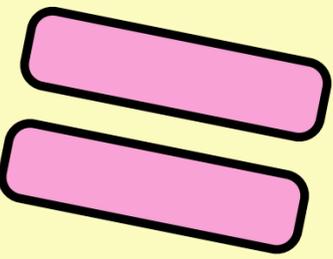


# Warm Up Questions - Answers



**21a** Award **ONE** mark for

**B** is (55, 30)

**1m**

**21b** Award **ONE** mark for

**D** is (55, 14)

**1m**

If B and D are incorrect, **ONE** mark may be given for the correct  $y$  coordinate for both B and D and the same  $x$  coordinate (incorrect) for both points, i.e.

- D is (same  $x$  as B, 14)

**22**

Award **TWO** marks for the correct answer of  $50^\circ$

**Up to 2m**

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- $115 \times 2 = 230$   
 $360 - 230 = 130$   
 $130 \div 2 = 65^\circ$   
 $65^\circ + 65^\circ = 130^\circ$   
 $180^\circ - 130^\circ$

**OR**

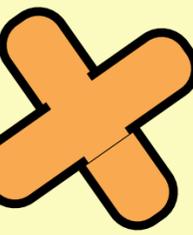
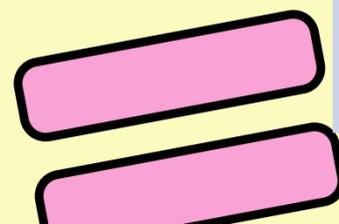
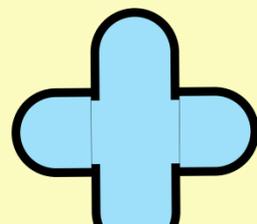
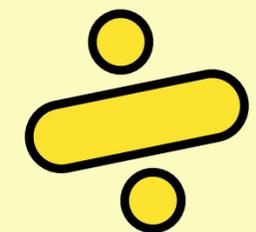
- $115 \times 2 = 230$   
 $360 - 230 = 130$   
 $130 \times 2 = 260^\circ$   
 $360^\circ - 260^\circ = 100^\circ$   
 $100^\circ \div 2$

Award **ONE** mark for sight of:

- 130

**OR**

- 65





4

5

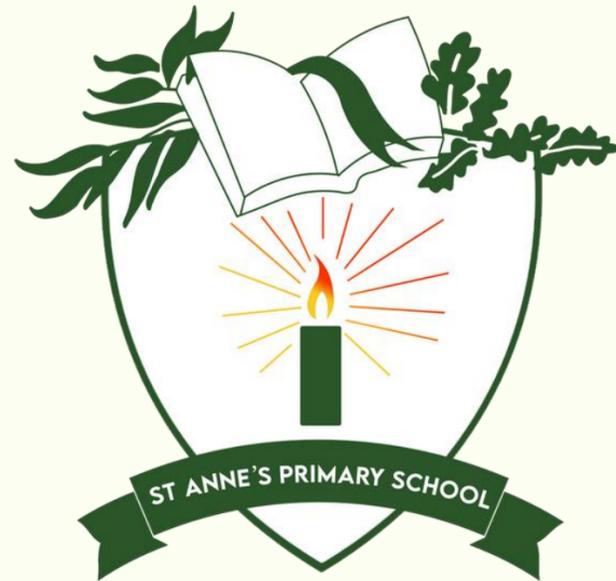


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# Key Stage Two Expectations

2



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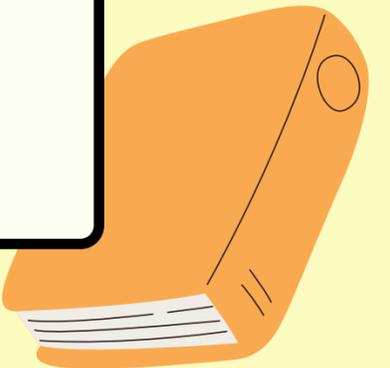
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# Aims of the Workshop

- Understand what KS2 national assessments involve and what your child is expected to know by the end of Key Stage 2.
- Feel more confident with SATs-style questions and the formal methods children are taught in school.
- Know practical ways to support your child at home, including strategies, routines, and helpful resources.

# BLOB FOOTBALL

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# National curriculum assessments in KS2

Multiplication Tables Check - June of Year 4

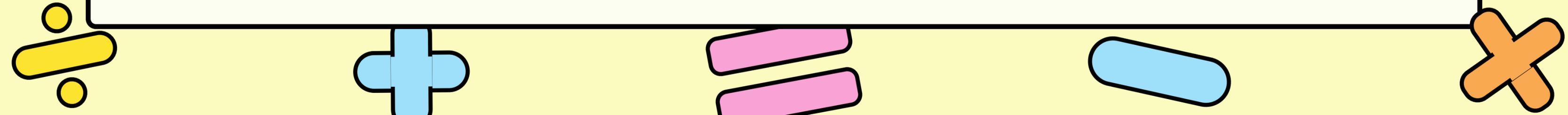
Key Stage 2 Tests (referred to as SATs) - May of Year 6



# Multiplication Tables Check

The purpose of the check is to determine whether your child can **fluently recall their times tables up to 12**, which is essential for future success in mathematics. It also helps us, as a school, to **identify if your child may need additional support.**

It is an onscreen check consisting of **25 times table questions**. They will have **6 seconds to answer** each question. The check should take **no longer than 5 minutes** to complete. There is **no pass mark** for the check.





# Effective ways you can support your child at home

## 1. Practise Little and Often

Short, regular practice is more effective than long sessions.

Ideas to try:

- 5–10 minutes a day
  - Mix different tables together
  - Use digital tools such as:
    - Times Table Rock Stars (Soundcheck mode)
    - Hit the Button
    - Topmarks Multiplication Trainer
  - Try quick-fire questions during small moments (e.g., car journeys)
- 

# Effective ways you can support your child at home

## 2. Focus on Trickier Tables

Many children find these tables the hardest: 6s, 7s, 8s, 9s, and 12s.

Help by:

- Spotting patterns (e.g., 9x facts follow a predictable number pattern)
- Linking to known facts (e.g., doubling:  $8 \times 6 = \text{double } 4 \times 6$ )

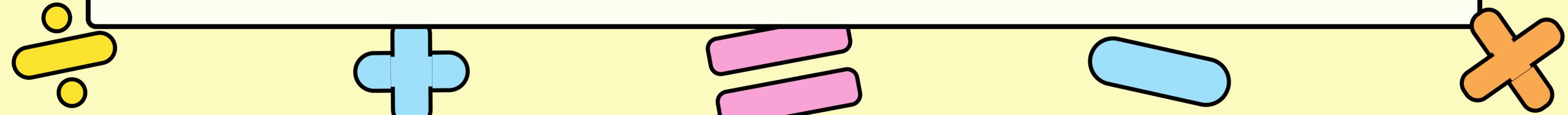


# Effective ways you can support your child at home

## 3. Practise in a Test-Like Format

The MTC gives children 6 seconds per question, so practising with a bit of time pressure helps build confidence.

Ways to do this:

- TT Rock Stars (Soundcheck mode)
  - Quick timed quizzes
  - Reading questions aloud with a six-second timer
- 

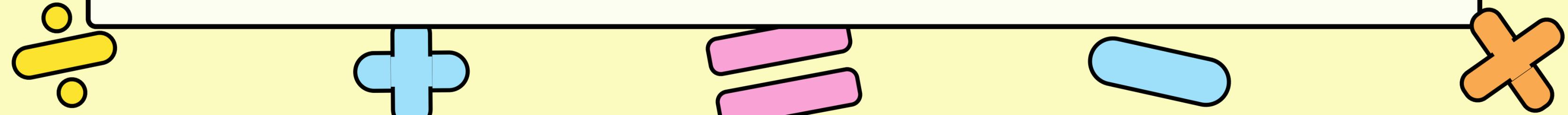


## Effective ways you can support your child at home

### 4. Use Visual and Practical Methods

Not all children learn through memorisation alone. Visual or hands-on activities can help facts stick.

Try using:

- Counters, Lego, or groups of objects
  - Number lines and skip counting
  - Colour-coded times table charts
  - Fact families (e.g.,  $6 \times 7 = 42$ ,  $7 \times 6 = 42$ )
- 

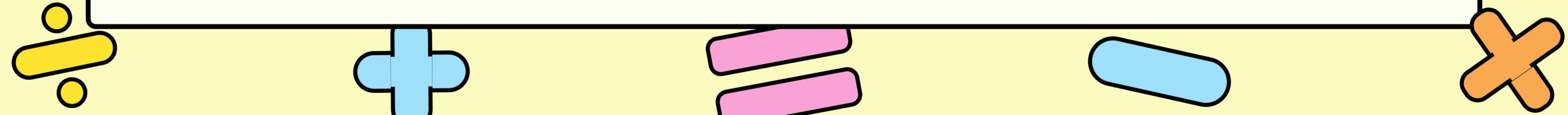


# Effective ways you can support your child at home

## 5. Look for Opportunities in Daily Life

Multiplication is everywhere. Use real situations to reinforce learning naturally.

For example:

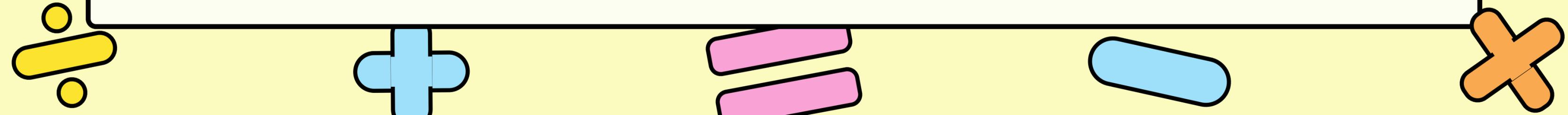
- Baking (e.g., 4 trays with 6 cupcakes each)
  - Shopping (e.g., 3 packs of 9 apples)
  - Everyday “maths challenges” (“What is  $7 \times 4$ ?”)
- 



# Effective ways you can support your child at home

## 6. Support Confidence, Not Just Speed

Children learn best when they feel positive. Remind them that:

- It's not a high-stakes test
  - Mistakes are part of learning
  - Confidence grows gradually with practice
- 

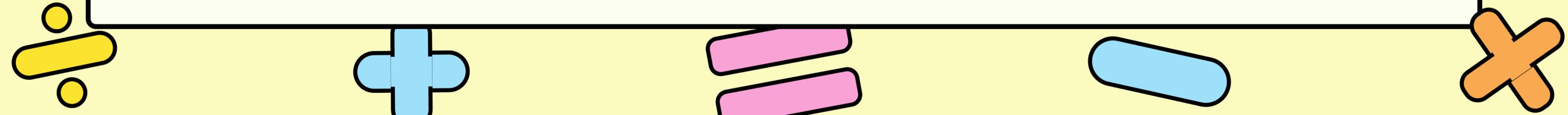


# Effective ways you can support your child at home

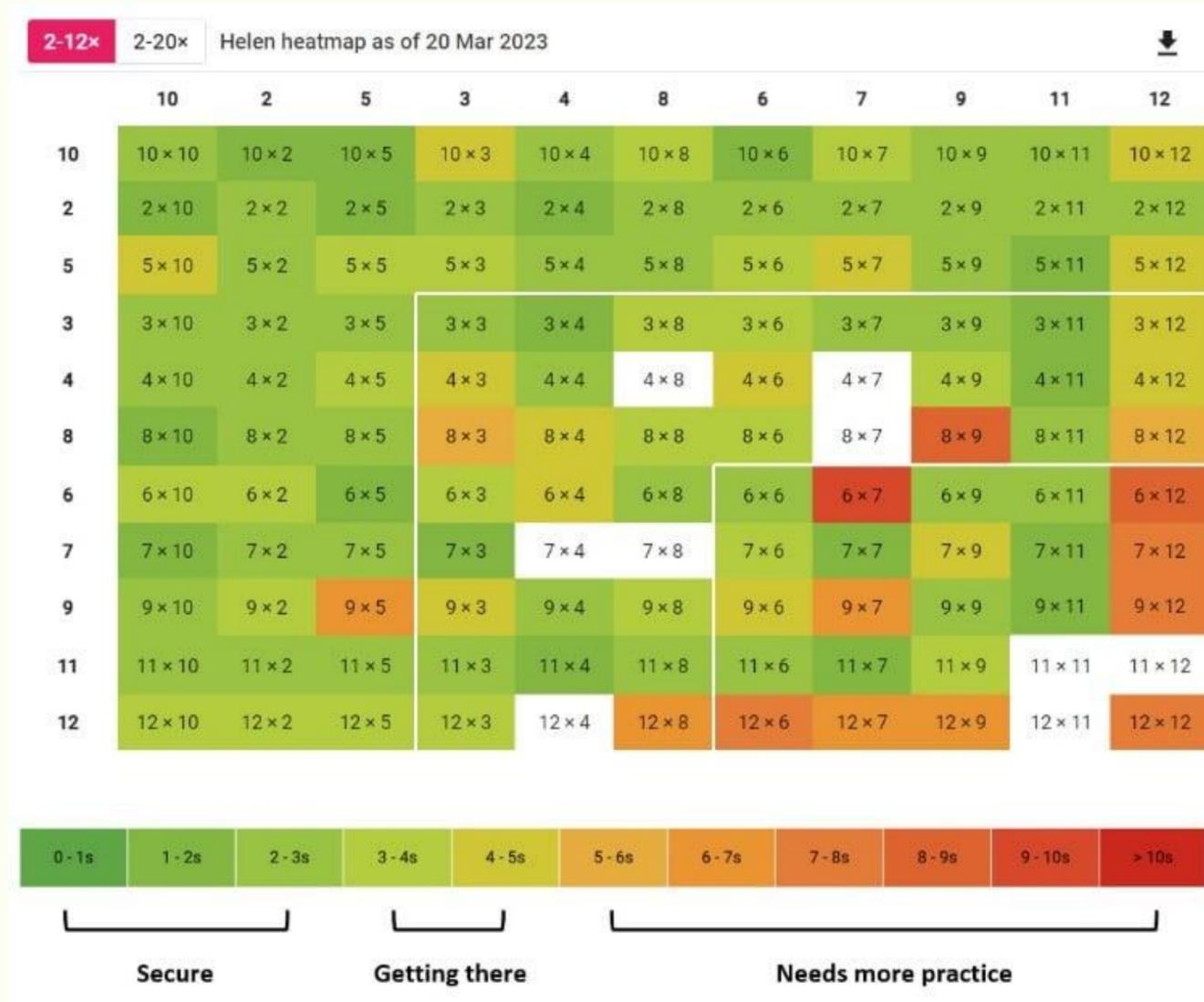
## 7. Celebrate Progress

Motivation increases when children see their improvement.

You can:

- Track progress on a simple chart
  - Celebrate each table learned
  - Praise effort as much as accuracy
- 

# Times Table Rock Stars - Heatmap



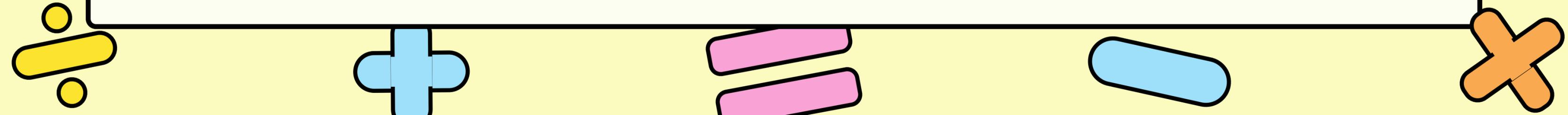


## Key Stage 2 Tests (SATs)

At the end of KS2, children in Year 6 will sit National Curriculum Assessments in:

- English grammar, punctuation and spelling
- English reading
- mathematics

The tests help measure the attainment of pupils in relation to the standards set out in the national curriculum, and help teachers and parents identify where pupils may need additional support in a certain subject area.



# Grammar, Punctuation and Spelling

## Paper 1: Grammar & Punctuation

Length: 45 minutes

Format:

- A series of short-answer questions
- Topics include word classes, sentence types, tenses, punctuation, and standard English

Purpose: To assess a child's understanding of English grammar rules and ability to apply them correctly.

## Paper 2: Spelling Test

Length: around 15 minutes

Format:

- 20 dictated spellings read aloud by the teacher
- Children write each word into a sentence with a missing gap

Purpose: To assess accurate spelling of common and more complex words.

# Your Turn!

On your table, you will find a selection of questions taken from past SATs papers.

Please take a moment to look through them and see if you can work out the correct answers.

## Sample questions taken from previous SATs Grammar and Punctuation papers

1. Circle the verb that is in the **subjunctive** in the sentence below.

If I were to help, I would start by clearing the tables.

2. Circle the three **determiners** in the sentence below.

There are some biscuits in this tin but there are not any chocolate ones.

3. Circle the four **verbs** in the passage below.

There were hundreds of gulls circling in the sky.

They gathered near the dock, searching for scraps.

4. Write the **contracted form** of the underlined words in the boxes below them.

I will not be able to come to your party, but

Karina said that she would come.

5. Explain how the position of the **apostrophe** changes the meaning of the second sentence.

1. What are your brother's favourite toys?
2. What are your brothers' favourite toys?

---

---

1 mark

6. Rewrite the sentence below in the **passive**. Remember to punctuate your answer correctly.

Someone stole the treasure.

---

1 mark

7. Which sentence has a **modal verb**?

Tick one.

Please help me find the blue pencils.

What are we having for lunch?

Alex had been yawning all day.

I must be at school early tomorrow.

1 mark

8. Complete the sentence below using the **past progressive** form of the verb in the box.

While we \_\_\_\_\_ to our friend, his phone started ringing.

1 mark

1 mark

# Answers

1. **Award 1 mark** for the correct word circled.

If I were to help, I would start by clearing the tables.

2. **Award 1 mark** for all **three** correctly circled.

There are some biscuits in this tin but there are not any chocolate ones.

3. **Award 1 mark** for all four correct.

There were hundreds of gulls circling in the sky.  
They gathered near the dock, searching for scraps.

4. **Award 1 mark** for both correct.

I will not be able to come to your party, but

↓  
won't

Karina said that she would come.

↓  
she'd

**Do not accept** misspellings.

**There are no capitalisation requirements for this question.**

5. **Award 1 mark** for a response that demonstrates understanding of the plural possessive apostrophe, e.g.

- *In the second sentence, it means that there is more than one brother.*
- *In the second one, it shows plural possession.*
- *1. One brother. 2. Two brothers.*

**Also accept** responses that demonstrate understanding without referring to the second sentence, e.g.

*In the first sentence, there is only one brother.*

**There are no spelling or punctuation requirements for this question.**

6. **Award 1 mark** for a correctly punctuated sentence using the passive, for example:

- *The treasure was stolen by someone.*
- *The treasure was stolen by somebody.*
- *The treasure was stolen.*

**Do not accept** misspellings of verb forms or errors in punctuation or capitalisation.

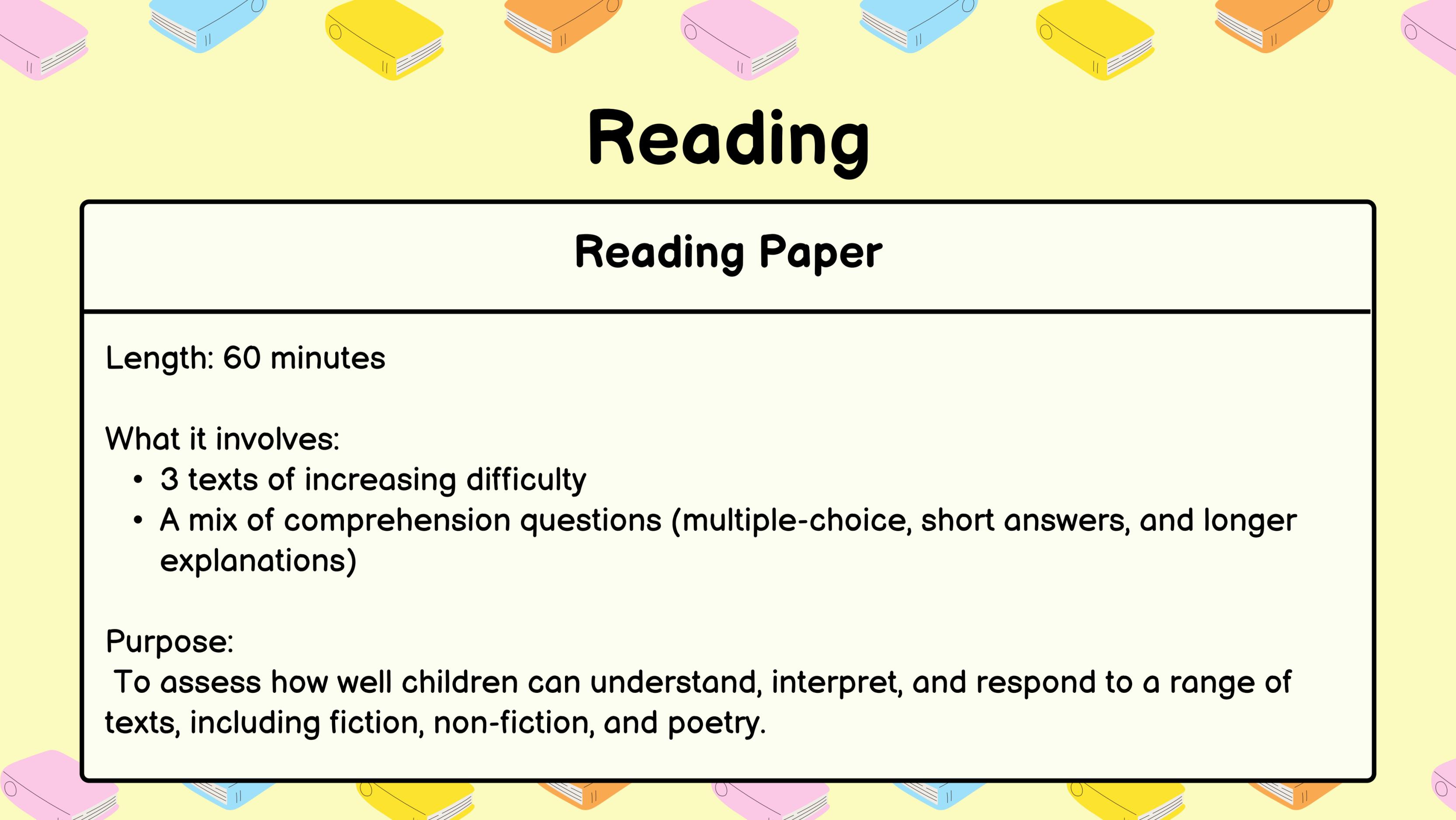
7. I must be at school early tomorrow.

8. **Award 1 mark** for

While we were talking to our friend, his phone started ringing.

↑  
to talk

**Do not accept** misspellings or errors in punctuation or capitalisation.

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# Reading

## Reading Paper

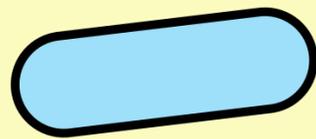
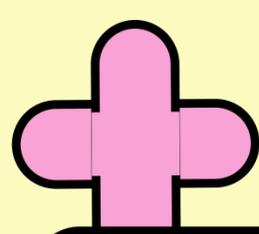
Length: 60 minutes

What it involves:

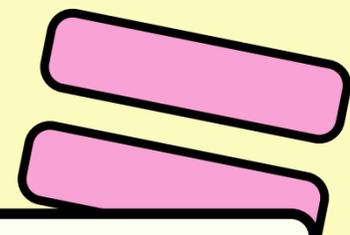
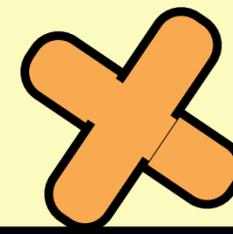
- 3 texts of increasing difficulty
- A mix of comprehension questions (multiple-choice, short answers, and longer explanations)

Purpose:

To assess how well children can understand, interpret, and respond to a range of texts, including fiction, non-fiction, and poetry.



# Mathematics



## Paper 1: Arithmetic

Length: 30 minutes

Format:

- Pure calculations (addition, subtraction, multiplication, division)
- Fractions, decimals and percentages
- No reasoning or explanation needed

Purpose:

To assess the speed and accuracy of written and mental calculation methods.

## Paper 2 and 3: Reasoning

Length: Each paper is 40 minutes

What they involve:

- Word problems
- Multi-step challenges
- Questions requiring explanation or choosing efficient methods
- Interpreting tables, charts, shapes and measurements
- Applying mathematical understanding to real-life contexts

Purpose:

To assess how well children can apply their maths skills—reasoning, problem-solving and using maths flexibly across different situations.

Together, the two reasoning papers give a rounded picture of how confidently children can use maths in practical and varied contexts.

# Maths SATs

KS2 Maths SATs papers analysis by @\_MissieBee

% of questions from each year group curriculum

Year	2017	2018	2019	2022	2023	2024	2025
3	7	9	10	8	10	12	12
4	26	18	21	23	19	26	21
5	25	26	21	32	29	18	29
6	41	47	47	37	41	44	38

More than half of the content in every set of maths papers so far has been drawn from the Years 3, 4 and 5 curricula.

# Maths SATs

KS2 Maths SATs papers analysis by @\_MissieBee

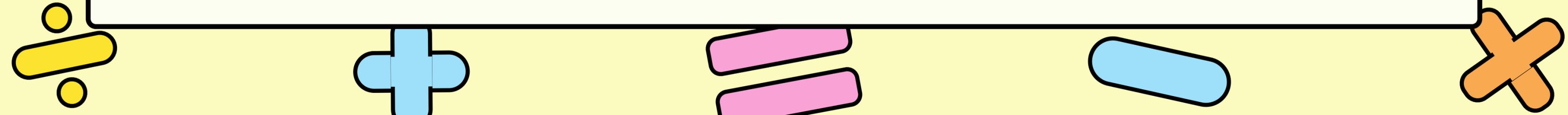
*% of questions by content domain*

Content domain	2017	2018	2019	2022	2023	2024	2025
Number & PV	9	10	9	9	10	9	13
Calculations	22	29	30	38	33	41	35
FDP	14	14	24	25	25	26	24
Ratio & prop.	9	6	8	6	6	5	6
Algebra	9	9	6	3	7	3	2
Measurement	14	13	9	7	7	7	11
Shapes	9	10	7	6	6	6	4
Pos. & direction	3	4	3	2	2	2	3
Statistics	11	6	4	3	4	2	2



# Power Maths

At St Anne's, our mathematics lessons follow Power Maths, a whole-class mastery scheme written by leading experts and recommended by the Department for Education. Power Maths is designed to ensure that every child can succeed in mathematics. Its key aims are to:

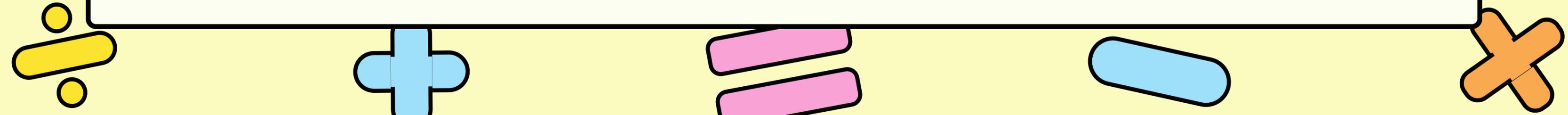
- Keep the whole class learning together, ensuring all children develop a secure understanding of each concept.
  - Provide rich, engaging problem-solving activities that challenge children and deepen their mathematical thinking.
  - Use ongoing, practical assessment to identify misconceptions early and support pupils with timely, targeted intervention.
  - Develop a strong growth mindset, helping children build confidence, resilience, and a positive attitude towards maths.
- 



# Mastery

**“Mastering maths means acquiring a deep, long-term, secure and adaptable understanding of the subject” – NCETM**

In our mathematics lessons, this is achieved by:

- carefully sequenced, small step learning
  - building fluency
  - developing mathematical thinking
  - exposure to representation that expose mathematical structures
- 

Conceptual  
understanding

Mathematical  
problem  
solving

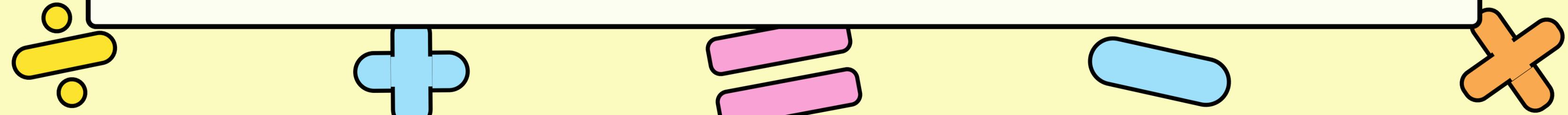
Mathematical  
thinking

Language and  
communication

**Mastery**



# Lesson Structure

1. Retrieval Practice
  2. Key Vocab for the lesson
  3. Discover and Share
  4. Think Together
  5. Practice
  6. Reflect
- 



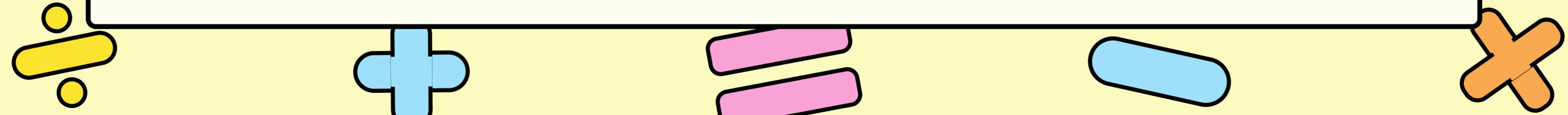
# Retrieval Practice (RP)

At the start of every lesson, we begin with Retrieval Practice. This is a short activity where children answer questions about prior learning.

These questions might link to:

- something taught in the previous lesson,
- a recent topic, or
- learning from earlier in the year or even a previous year group.

This helps pupils strengthen their memory, make connections, and build long-term understanding.



# RP Examples - Place Value

## Flashback 4

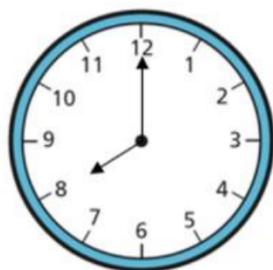
Year 3 | Week 1 | Day 1

White Rose  
MATHS

1) How many tens are there in 67?

2) How many minutes are there in 1 hour?

3) Write the time shown on the clock.



4) Add 12 and 27 together.

$$3 \times 2$$

## Flashback 4

Year 4 | Week 1 | Day 1

White Rose  
MATHS

1) How many boys went to the park at the weekend?

	Girls	Boys
Saturday	52	46
Sunday	37	35

2) How many more goals did Alex score than Jack?

Name	Goals scored
Alex	
Jack	

Key  
● = 2 goals

3) Which type of angle is this?



4) What is 32 divided by 8?

$$3 \times 2$$

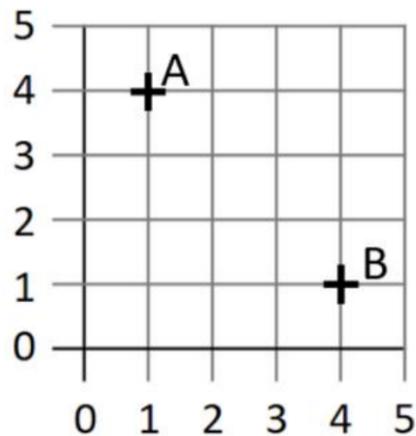
# RP Examples - Place Value

## Flashback 4

Year 5 | Week 1 | Day 1

White Rose  
MATHS

- 1) Write the coordinates of points A and B.
- 2) Describe the movement from point A to B.



- 3) In a pictogram, if  is equal to 20 children then  is equal to  children.
- 4)  $6,485 - 3 \text{ thousands, } 4 \text{ tens and } 5 \text{ ones} =$

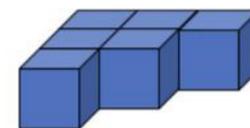
## VI

## Flashback 4

Year 6 | Week 1 | Day 1

White Rose  
MATHS

- 1) How many cubes make up this shape? XII

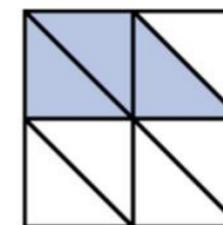


cubes

- 2) How many grams are in  $\frac{1}{2}$  a kilogram?

- 3) What is 9 subtract 15?

- 4) What fraction is shaded?



# Discover and Share (Year 6)

Unit 1: Place value within 10,000,000, Lesson 1

## Numbers to 1,000,000

### Discover

I have made a 6-digit number using the cards. It has 4 hundreds. My number has 2 ten thousands. It is less than 800,000 and odd.



Richard

Lexi

- What numbers could Richard have made using the digit cards shown?
- How many different answers can you find?

Unit 1: Place value within 10,000,000, Lesson 1

### Share

a) and b) Richard's number has 4 hundreds.

Put the 4 in the hundreds column.

HTh	TTh	Th	H	T	O
			4		

Put the 2 in the ten thousands column.

HTh	TTh	Th	H	T	O
	2		4		

The digit in the hundred thousands column must be less than 8.

The 7 or the 9 must go in the ones column to make the number odd.

HTh	TTh	Th	H	T	O
6	2		4		9

The digits that are left can be placed in either the thousands or the tens column. So Richard could have made:

627,489	726,489	629,487
628,479	728,469	628,497



I made 726,489 and 728,469 when I used 7 instead of 6 as the first digit.

I made 629,487 and 628,497 when I used 7 instead of 9 in the ones column.



# Think Together (Year 6)

## Think together

1 Richard has made a number using counters on a place value grid.

HTh	TTh	Th	H	T	O
●●		●●●	●●●●	●	●●●●●●●●●

- What number has Richard made?
- What is 1,000 more than Richard's number?
- What is 10 less than Richard's number?

2 What is the value of the digit 5 in each of these numbers?

a)

HTh	TTh	Th	H	T	O
1	5	2	1	8	0

b)

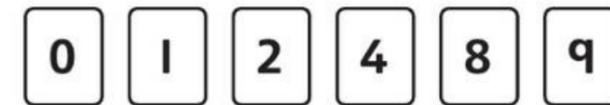
HTh	TTh	Th	H	T	O
4	1	2	1	0	5

- 26,514
- 519,822

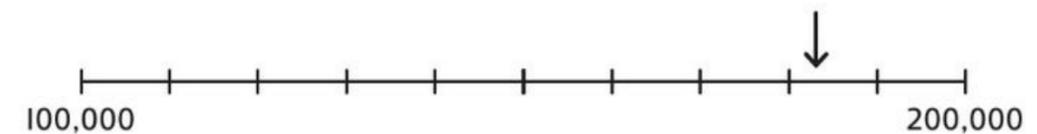
Saying the numbers out loud helps me to understand the place value of each number.



3 Lexi makes a number using these digit cards.



She draws an arrow where her number is on a number line.



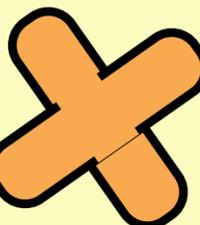
What number do you think Lexi has made?

CHALLENGE

I can see the number line is split into 10 equal parts. This will help me to work out what the missing values are.



I can see what Lexi's number has to start with by looking at where the number line starts and ends.



# Practice and Reflect (Year 6)

Unit 1: Place value within 10,000,000, Lesson 1

Date: \_\_\_\_\_

## Numbers to 1,000,000

1 Write the numbers that are shown on the place value grids.

a)

HTh	TTh	Th	H	T	O
○○○	●●	○○○○○ ○○○○○	○○○○	○	○○

\_\_\_\_\_

b)

HTh	TTh	Th	H	T	O
	●●●●● ●●	●●	○○○		○○○○

\_\_\_\_\_

2 Write each of the numbers in numerals.

a) one hundred and twenty-three thousand  
\_\_\_\_\_

b) four hundred and thirty-nine thousand, two hundred and eighty-six  
\_\_\_\_\_

c) ninety-seven thousand, one hundred and three  
\_\_\_\_\_

d) three hundred and five thousand, two hundred and forty-six  
\_\_\_\_\_

6

PUPIL PRACTICE BOOK 6A PAGE 6

Unit 1: Place value within 10,000,000, Lesson 1

3 What is the value of each underlined digit?

a) 731,142 \_\_\_\_\_

b) 24,904 \_\_\_\_\_

c) 7.373 \_\_\_\_\_

d) 518,420 \_\_\_\_\_

e) 112,304 \_\_\_\_\_

f) 35,182 \_\_\_\_\_

4 Using all six digit cards each time, write a number:

a) that is even \_\_\_\_\_

b) that is odd \_\_\_\_\_

c) that is a multiple of 5 \_\_\_\_\_

d) that is greater than 500,000 but less than 700,000. \_\_\_\_\_

5 a) Write the missing numbers.

\_\_\_\_\_ 330,000 \_\_\_\_\_ 370,000 \_\_\_\_\_

300,000 \_\_\_\_\_ 400,000

b) Estimate where the number 39,411 is on the number line.

30,000 \_\_\_\_\_ 40,000

7

PUPIL PRACTICE BOOK 6A PAGE 7

Unit 1: Place value within 10,000,000, Lesson 1

6 Write the missing numbers. Start from the original number each time.

a)

Number	1,000 more	100 more	10 more	10 less
73,400				

b)

Number	100,000 more	10,000 more	1,000 more	1,000 less
650,167				

7 **CHALLENGE** Max is thinking of a number. His number:

- is a 6-digit, odd number
- has the same number of 1,000s as 1s
- is greater than half a million
- has a digit sum of 26.

Write any two numbers that Max might be thinking of.  
\_\_\_\_\_ and \_\_\_\_\_

8

**Reflect**

Write three pieces of information about the number 172,428. Compare your information with a partner's information.

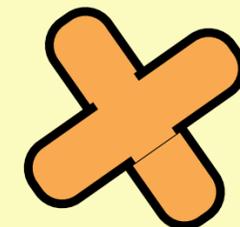
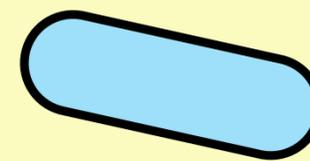
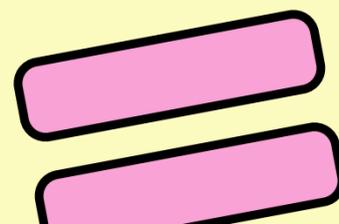
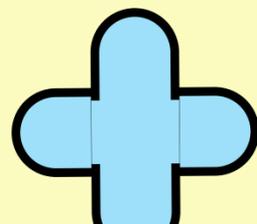
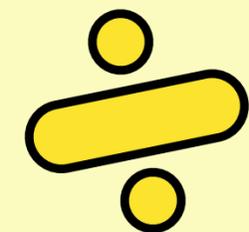
• \_\_\_\_\_

• \_\_\_\_\_

• \_\_\_\_\_

8

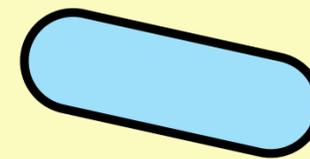
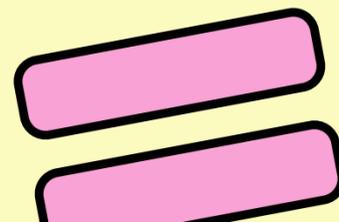
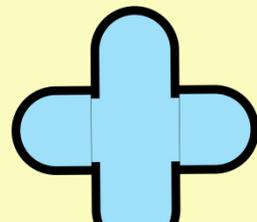
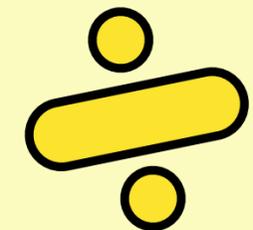
PUPIL PRACTICE BOOK 6A PAGE 8



# Content - Year 3 and 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value FREE TRIAL  VIEW		Free trial	Number Addition and subtraction  VIEW				Number Multiplication and division A  VIEW				
Spring	Number Multiplication and division B  VIEW		Measurement Length and perimeter  VIEW		Number Fractions A  VIEW			Measurement Mass and capacity  VIEW				
Summer	Number Fractions B  VIEW	Measurement Money  VIEW	Measurement Time  VIEW		Geometry Shape  VIEW		Statistics  VIEW		Consolidation			

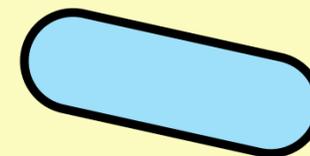
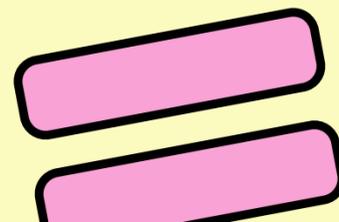
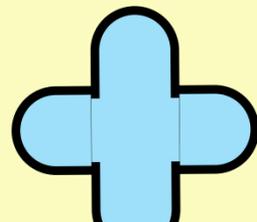
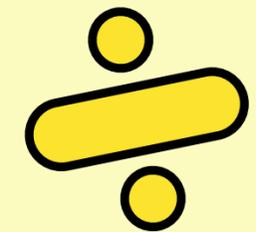
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
Autumn	Number Place value FREE TRIAL  VIEW		Free trial	Number Addition and subtraction  VIEW			Measurement Area  VIEW	Number Multiplication and division A  VIEW					Consolidation
Spring	Number Multiplication and division B  VIEW		Measurement Length and perimeter  VIEW		Number Fractions  VIEW			Number Decimals A  VIEW					
Summer	Number Decimals B  VIEW	Measurement Money  VIEW	Measurement Time  VIEW		Consolidation	Geometry Shape  VIEW		Statistics  VIEW	Geometry Position and direction  VIEW				



# Content - Year 5 and 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value FREE TRIAL <a href="#">VIEW</a>		Number Addition and subtraction <a href="#">VIEW</a>		Number Multiplication and division A <a href="#">VIEW</a>				Number Fractions A <a href="#">VIEW</a>			
Spring	Number Multiplication and division B <a href="#">VIEW</a>	Number Fractions B <a href="#">VIEW</a>	Number Decimals and percentages <a href="#">VIEW</a>	Measurement Perimeter and area <a href="#">VIEW</a>	Statistics <a href="#">VIEW</a>							
Summer	Geometry Shape <a href="#">VIEW</a>	Geometry Position and direction <a href="#">VIEW</a>	Number Decimals <a href="#">VIEW</a>	Number Negative numbers <a href="#">VIEW</a>	Measurement Converting units <a href="#">VIEW</a>	Measurement Volume <a href="#">VIEW</a>						

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value FREE TRIAL <a href="#">VIEW</a>	Number Addition, subtraction, multiplication and division <a href="#">VIEW</a>						Number Fractions A <a href="#">VIEW</a>	Number Fractions B <a href="#">VIEW</a>		Measurement Converting units <a href="#">VIEW</a>	
Spring	Number Ratio <a href="#">VIEW</a>	Number Algebra <a href="#">VIEW</a>	Number Decimals <a href="#">VIEW</a>	Number Fractions, decimals and percentages <a href="#">VIEW</a>	Measurement Area, perimeter and volume <a href="#">VIEW</a>	Statistics <a href="#">VIEW</a>						
Summer	Geometry Shape <a href="#">VIEW</a>	Geometry Position and direction <a href="#">VIEW</a>	Themed projects, consolidation and problem solving <a href="#">VIEW</a>									



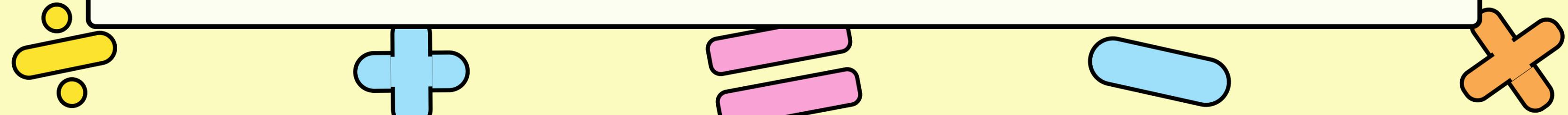


# Formal Method

A formal method is a standard written procedure used to carry out a calculation. Examples include:

- column addition
- column subtraction
- long multiplication
- long division

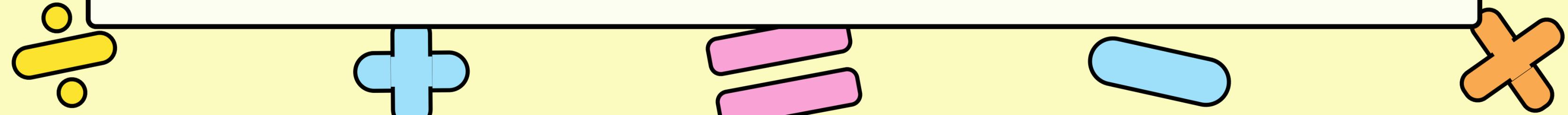
These methods provide clear, step-by-step structures that help children solve calculations accurately, efficiently, and with confidence.





# Formal Methods - Modelling

We will now model the formal methods adopted at St Anne's.



# Formal Methods - Modelling



Solve  
 $127 - 49 = ?$

# Formal Methods - Modelling



Column method is efficient, but we ensure children understand the concept of place value first, so they know why the algorithm works, preventing later errors.

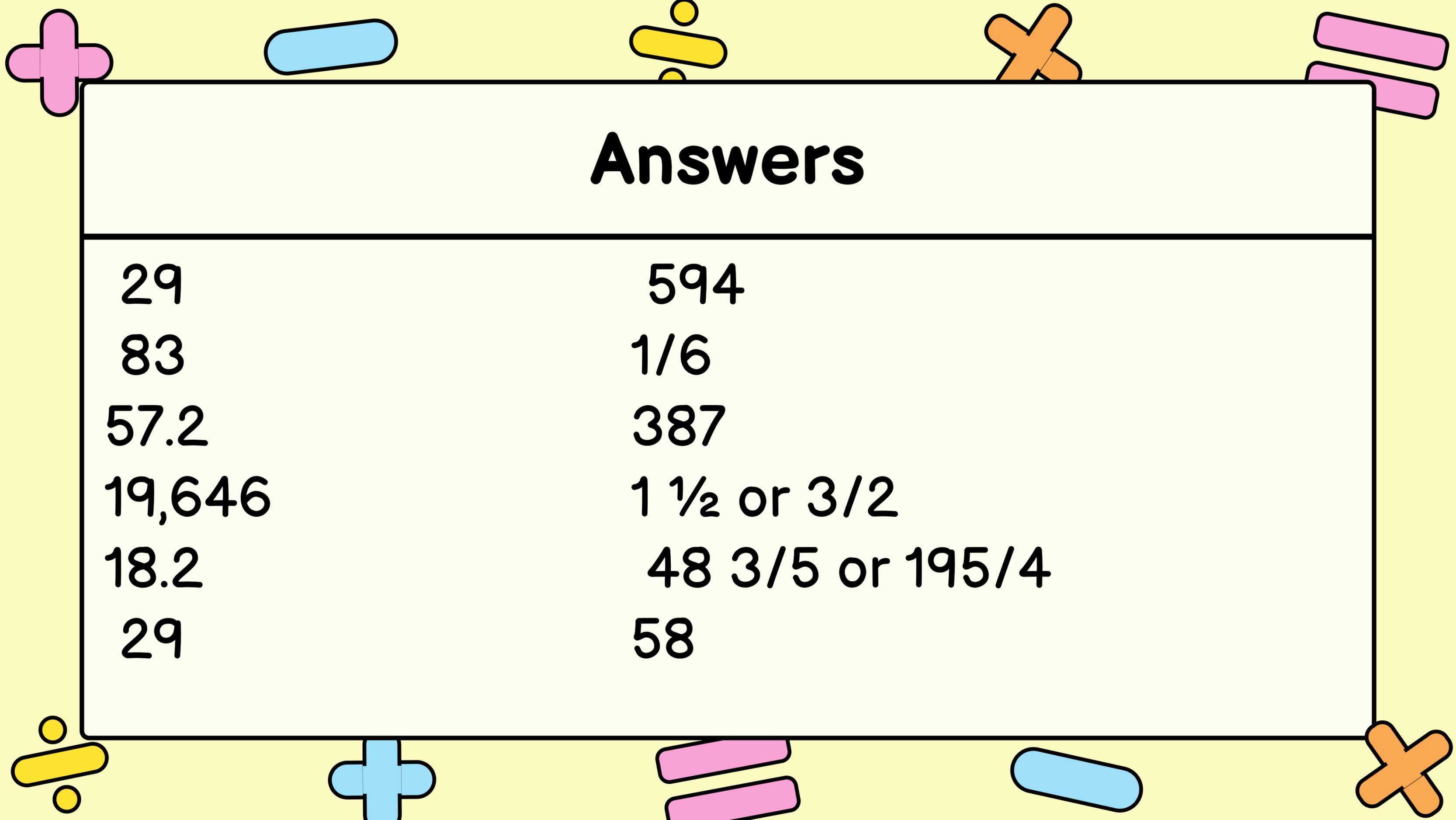
# Your Turn !

On your table, you will find a selection of questions taken from the 2024 Arithmetic SATs paper.

Please take a moment to look through them and see if you can work out the correct answers.

Sample questions taken from the 2024 Arithmetic SATs Paper

21	$2 + 3^3 =$	<input type="text"/>	1 mark
29	$0.7 \times 26 =$	<input type="text"/>	1 mark
33	43% of 900 =	<input type="text"/>	1 mark
23	$90 - 56 \div 8 =$	<input type="text"/>	1 mark
30	$34 \overline{)986}$	<input type="text"/>	2 marks
34	$2\frac{1}{6} - \frac{2}{3} =$	<input type="text"/>	1 mark
24	$63 - 5.8 =$	<input type="text"/>	1 mark
31	99% of 600 =	<input type="text"/>	1 mark
35	$1\frac{1}{4} \times 39 =$	<input type="text"/>	1 mark
25	$\begin{array}{r} 418 \\ \times 47 \\ \hline \end{array}$	<input type="text"/>	2 marks
32	$\frac{1}{2} \div 3 =$	<input type="text"/>	1 mark
36	$73 \overline{)4234}$	<input type="text"/>	2 marks



# Answers

29

594

83

$\frac{1}{6}$

57.2

387

19,646

$1\frac{1}{2}$  or  $\frac{3}{2}$

18.2

$48\frac{3}{5}$  or  $195/4$

29

58

# Your Turn !

On your table, you will find a selection of questions taken from the 2024 Reasoning SATs papers.

Please take a moment to look through them and see if you can work out the correct answers.

Sample questions taken from 2024 Reasoning Papers

**23** Mrs Mills has 940 seeds to plant into trays. She plants 12 seeds in each tray. The last tray is not full. What fraction of the last tray is filled?

Show your method

**24** Here are four numbers. 40 60 64 100

Use each number **once** to complete these statements.

is a square number.

is a cube number.

is a common multiple of 4 and 5

is a common factor of 80 and 120

**26** Here are 3 translations on a coordinate grid. Tick the translations that are **four units to the left**.

from (0, 2) to (4, 2)

from (6, 8) to (2, 8)

from (-3, 5) to (-7, 5)

**22** Sarah makes jewellery using black and white beads. She uses this rule to work out how many black beads to use.

$$\text{black} = (\text{white} \times 3) + 4$$

Sarah uses 12 white beads to make a necklace. How many black beads does she use?

Sarah uses 25 black beads to make a bracelet. How many white beads does she use?

**15** 35% of the 680 pupils at a school have a pet dog. 159 of the pupils who have a pet dog are boys. How many of the pupils who have a pet dog are girls?

Show your method

**21** A band holds a concert for charity. The tickets cost £27 each. They sell 635 tickets. They pay £3,180 to use the hall. They give one-third of the remaining amount to charity. How much money does the band give to charity?

Show your method

**13** There are 20 boxes on a truck. The boxes are in 4 different sizes.

8 of these boxes 6 of these boxes 2 of these boxes

4 of these boxes

4 kg 2.5 kg 6.5 kg 13 kg

What is the **total mass** of the 20 boxes on the truck?

Show your method

# Answers

1.  $4/12$  (paper 2)

2. 100, 64, 60, 40  
(paper 2)

3. Option 2 and 3  
(paper 2)

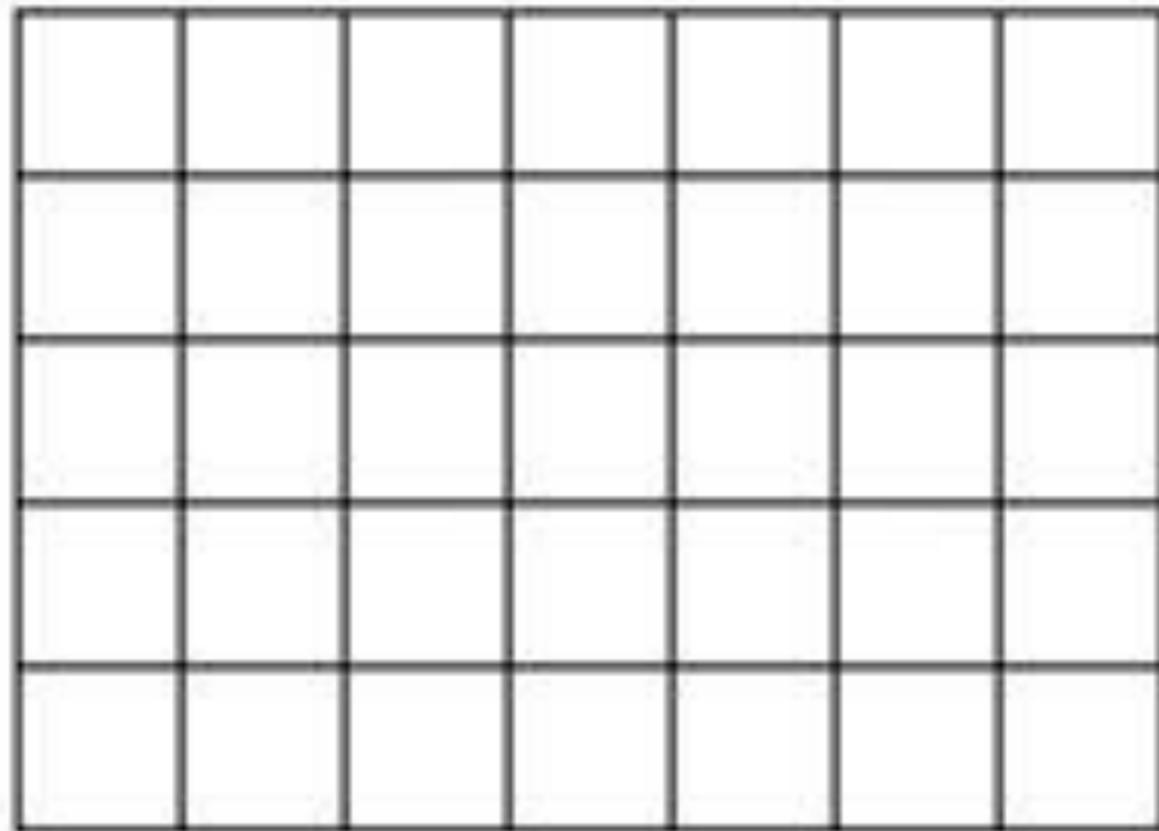
1. a. 40 b. 7 (paper  
3)

2. 79 (paper 3)

3. £4655 (paper 3)

4. 99 (paper 3)

# Your Turn !



Make 2 straight line cuts along the grid lines which divide the rectangle into 3 shapes:

2 squares of **different** sizes, and  
1 rectangle



# Effective ways you can support your child at home

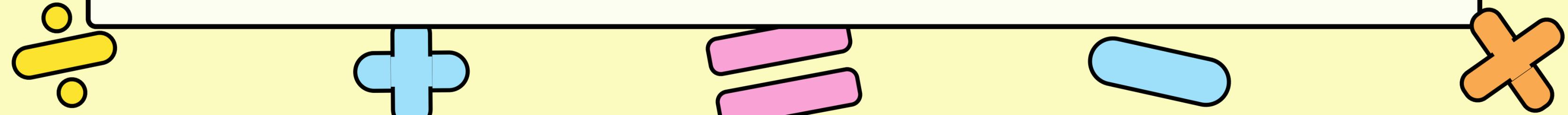
## 1. Encourage Regular Arithmetic Practice

Regular arithmetic practice builds fluency and accuracy, helping children feel more confident across the KS2 maths curriculum. Parents can support by encouraging short, frequent sessions focused on key number skills.

Useful tools include:

- MathsBot – for practising arithmetic questions
- Times Table Rock Stars (TTRS) – to build quick recall of multiplication and division facts
- Daily quick-fire recall activities – such as mental addition, estimation, or checking calculations

Consistent practice helps children develop the speed and accuracy needed for both the arithmetic and reasoning SATs papers.



# Effective ways you can support your child at home

## 2. Make Use of Manipulatives

Manipulatives—both virtual and physical—help children see the maths, making abstract ideas easier to understand. They are especially helpful for place value, fractions, number operations, and reasoning.

Virtual tools include:

- MathsBot
- Didax
- Polypad

Physical manipulatives that can be used at home include:

- Counters, beads, pasta pieces, or buttons
- Dice and playing cards
- Number lines or hundred squares
- Lego bricks or building blocks for grouping and measuring
- Fraction strips or circles (shop-bought or homemade)



# Effective ways you can support your child at home

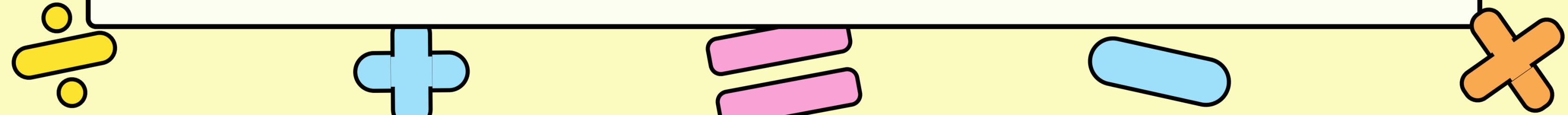
## 3. Support Mathematical Reasoning Through Everyday Contexts

Using maths in real-life situations helps reinforce understanding and builds children's confidence.

You can involve your child/ren in activities such as:

- calculating totals or change when shopping
- using time to plan journeys or daily routines
- measuring ingredients when cooking
- comparing prices to find the best value
- estimating quantities, distances, or timings

Asking open questions like "How do you know?" or "Can you explain your method?" encourages children to think deeply, justify their ideas, and develop strong reasoning skills.





# Effective ways you can support your child at home

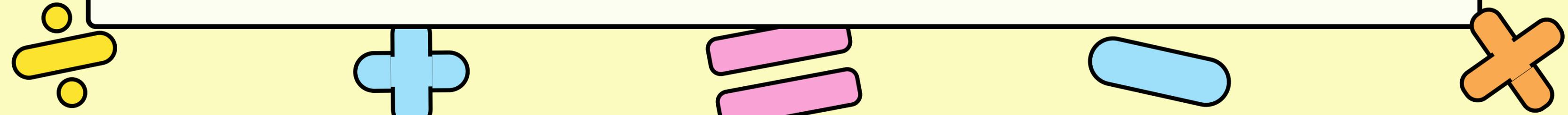
## 4. Promote a Positive Attitude Towards Mathematics

Confidence is key to success in maths, and a positive mindset helps children embrace challenges and keep learning.

You Parents can support this by:

- encouraging perseverance when tasks are difficult
- praising effort, strategies, and problem-solving, not just correct answers
- modelling a positive approach to maths in everyday life
- reinforcing that mistakes are a natural and valuable part of learning

Creating a supportive home environment helps children approach mathematics with confidence, resilience, and a love of learning.



# Key Takeaways from Today's Workshop

- KS2 Maths and Assessments – You now know what the national tests (SATs) involve, the skills your child is expected to master, and the formal methods taught in school.

- Practical Ways to Support at Home – You have strategies, tools, and activities—both virtual and hands-on - to help your child practise arithmetic and reasoning.

- Encouraging Confidence and a Positive Mindset – You understand the importance of celebrating effort, modelling a positive approach to maths, and helping your child approach challenges with resilience and confidence.

# Questions

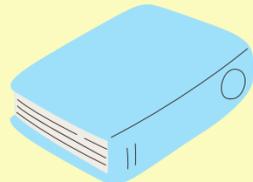
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1

2

3



4



5

6

7

8



9



## Useful links:

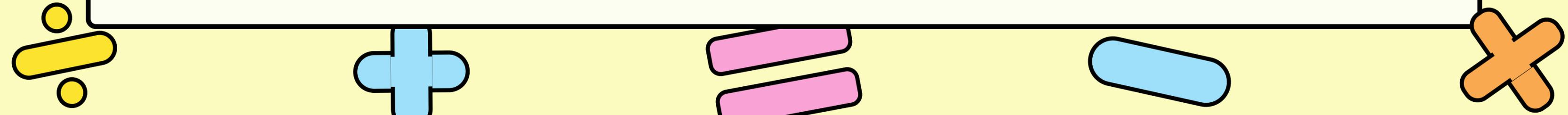
<https://www.gov.uk/government/collections/national-curriculum-assessments-information-for-parents>

<https://mathsbot.com>

<https://www.didax.com/virtual-manipulatives.html>

<https://polypad.amplify.com/p>

<https://www.topmarks.co.uk/maths-games/hit-the-button>



### Maths in Everyday Life

#### • Cooking

Measure weight, capacity, time and temperature.

Read scales on equipment such as weighing scales, measuring jugs, timers and thermometers. Talk about how to work out what the scale is going up in.

Scale a recipe up or down to feed a number of people e.g. Convert a recipe for four people to a recipe for six people.

#### • DIY

Involve them in measuring and calculating how much material is needed for a purpose e.g. wood for shelves or fabric for curtains. Help them to use tape measures or rulers correctly. Encourage estimating before they measure and compare measurements in metric and imperial units.

#### • Time

Reading clock times on both analogue and digital clocks.

Talking and asking questions about the time e.g. How long is it until lunchtime? The journey will take us  $2\frac{1}{2}$  hours what time should we leave? Use bus or train timetables to calculate how long a journey might take. Use a stopwatch to time how long it takes to do everyday tasks, estimating first.

#### • Money

Work out total costs, calculate change, check receipts. Work out prices of sale items e.g. How much will it be if it is 20% off? Manage pocket money, saving for things.

## The Golden Rule Make it fun!

Giving children the opportunity to apply their maths learning to everyday situations makes it more relevant and stimulating.

## Maths at Key Stage 2 How to Help at Home.

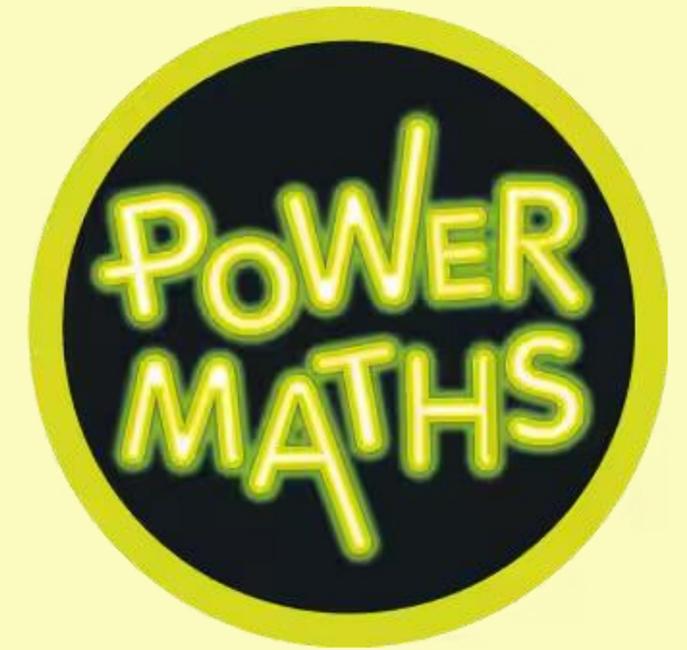


### Games and Activities

- Card games.
- Any games that involve calculating scores such as scrabble, monopoly, bowling, cricket.
- Games that involve strategic thinking and/or logic e.g. draughts, chess.
- Play 'guess my shape'. You think of a shape and your child asks you questions to work out what it is, you can only answer with yes or no.
- Hunt for right angles in the environment, can they spot angles that are smaller or larger than a right angle?

### Mental Activities

- Times Tables Children need to know the times tables facts up to  $12 \times 12$  by the end of Y4. Look for patterns like odd and even numbers, work out related division facts.
- Factors Can they work out and then recall the factors of a number e.g. all the numbers that can be multiplied to make 18?
- Use number cards to practice addition and subtraction facts and multiplication and division facts.
- Open ended activities give children a real opportunity to apply their maths knowledge. Ask them questions such as 'The answer is 25 what is the question?' How many different numbers can you make using 3 and 6?



KS2 Maths SATs papers analysis by @\_MissieBee

% of questions by content domain

Content domain	2017	2018	2019	2022	2023	2024	2025
Number & PV	9	10	9	9	10	9	13
Calculations	22	29	30	38	33	41	35
FDP	14	14	24	25	25	26	24
Ratio & prop.	9	6	8	6	6	5	6
Algebra	9	9	6	3	7	3	2
Measurement	14	13	9	7	7	7	11
Shapes	9	10	7	6	6	6	4
Pos. & direction	3	4	3	2	2	2	3
Statistics	11	6	4	3	4	2	2