

Maths at Bolton Primary School in Class 1

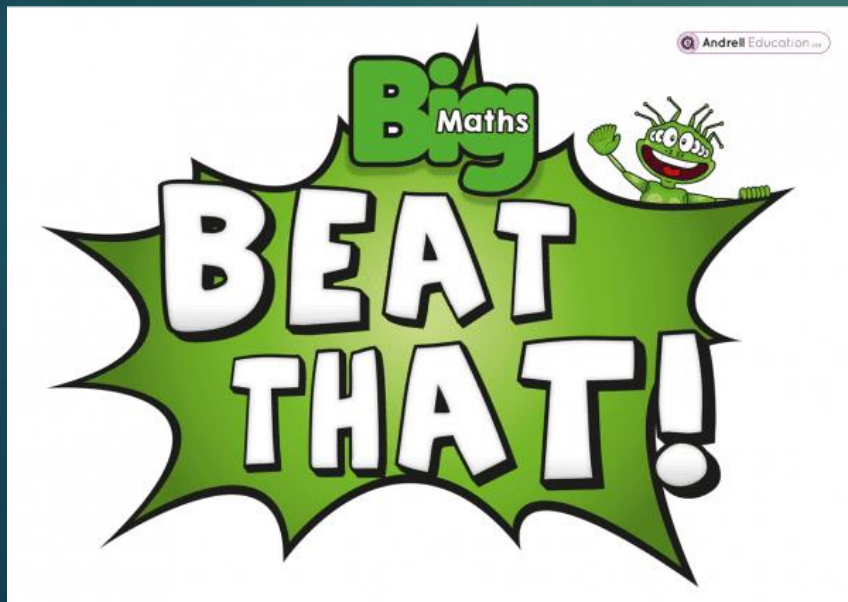
& HOW TO SUPPORT MATHS AT HOME

What does Maths look like in Class 1?

- ▶ Mastering number activities
- ▶ Fluency activities
- ▶ Main Maths session e.g. number/place value
- ▶ Reasoning activities
- ▶ Big Maths challenges (Thurs)



Big Maths Challenge



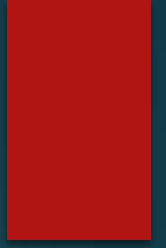
LEARN ITS
Challenges!

Activity for all

What is mastering number?

- ▶ Mastering Number is designed to help children in EYFS, Year 1 and Year 2 to embed good number sense including fluency and flexibility with number facts.

Reception Example

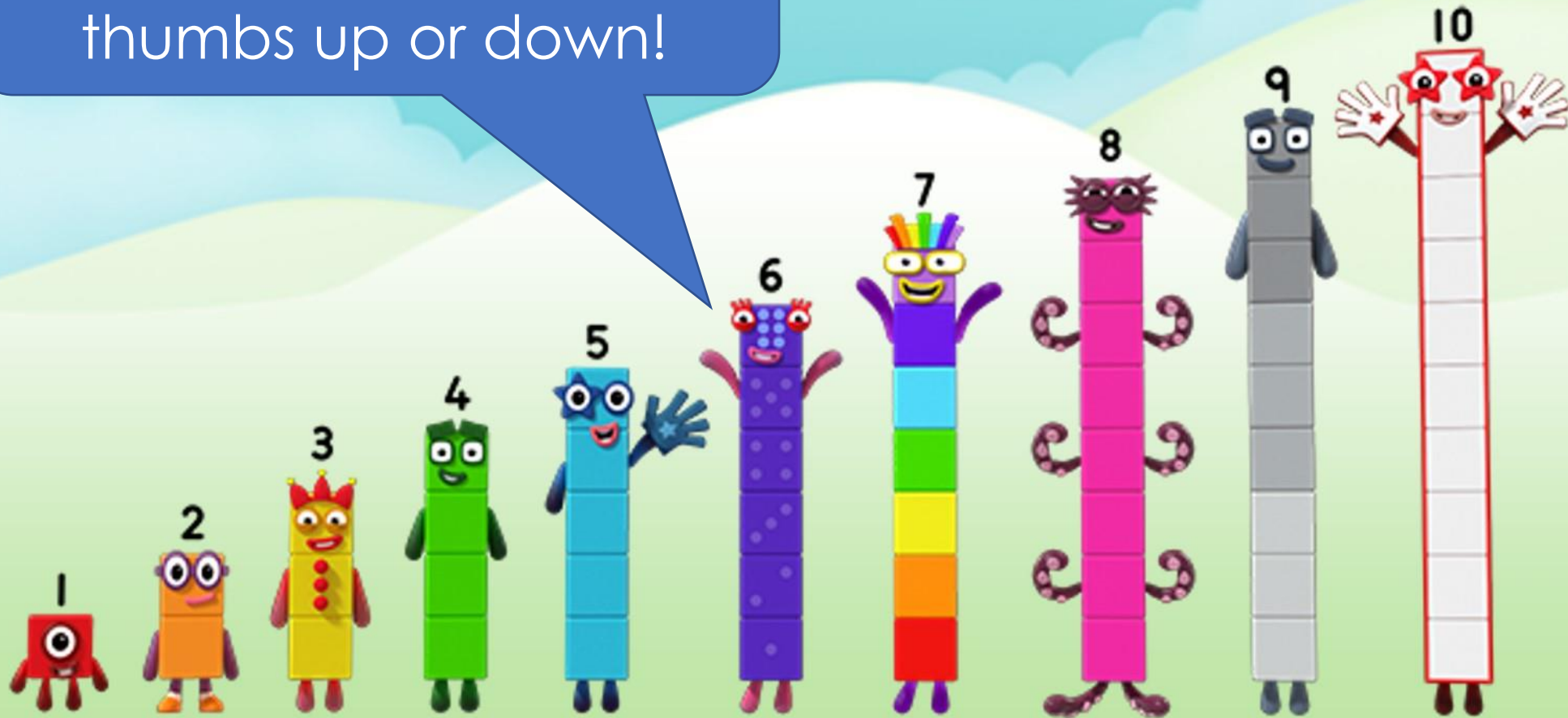


Numberblocks

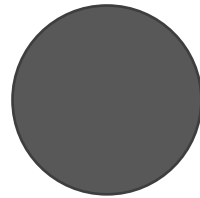
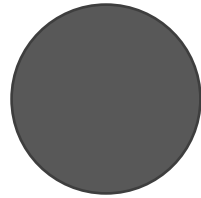
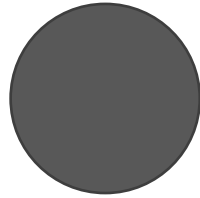
Series 2, Episode 1: Six



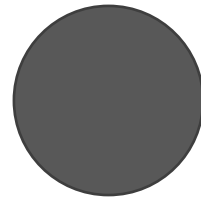
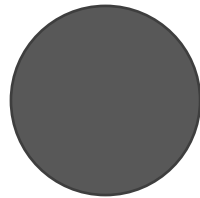
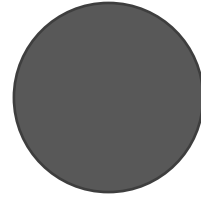
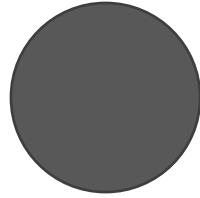
Let's play '6 or NOT 6'?
Get ready to put your
thumbs up or down!



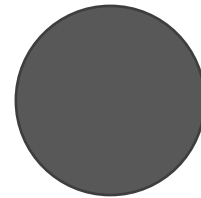
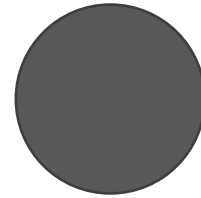
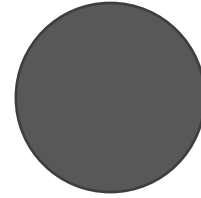
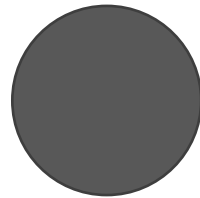
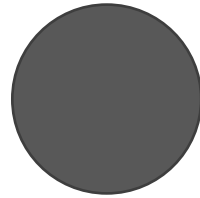
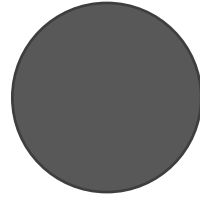
6 or NOT 6?



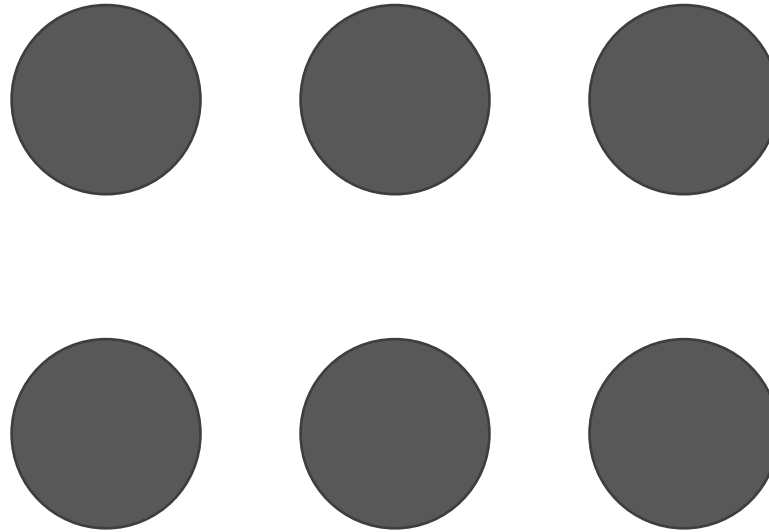
6 or NOT 6?



6 or NOT 6?



6 or NOT 6?



Let's clap, hop,
skip and jump!

Don't forget your
'stopping' number!





6



8



2



10



Year 1 Example

Use what you know about my parts to help you finish my stories about boats sailing away!

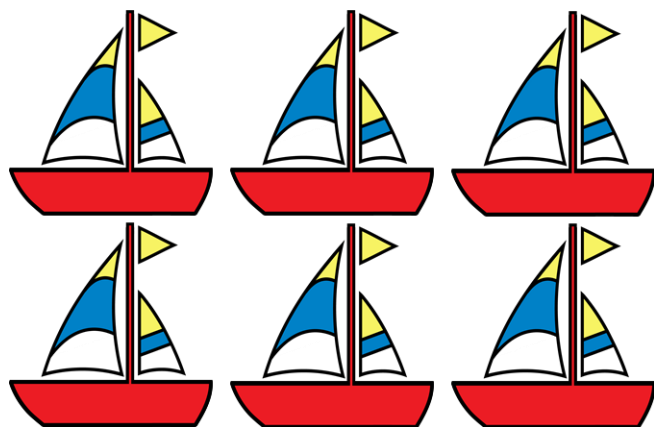
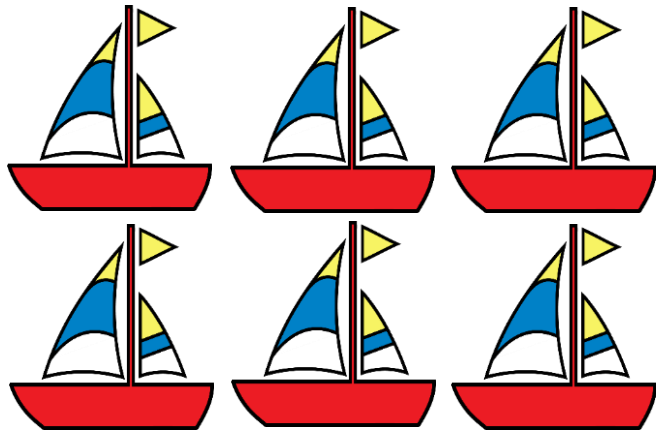


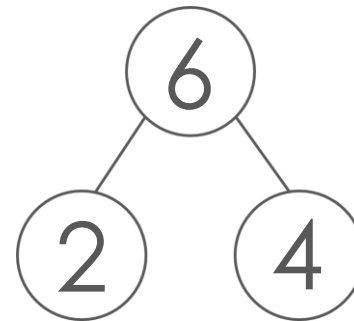
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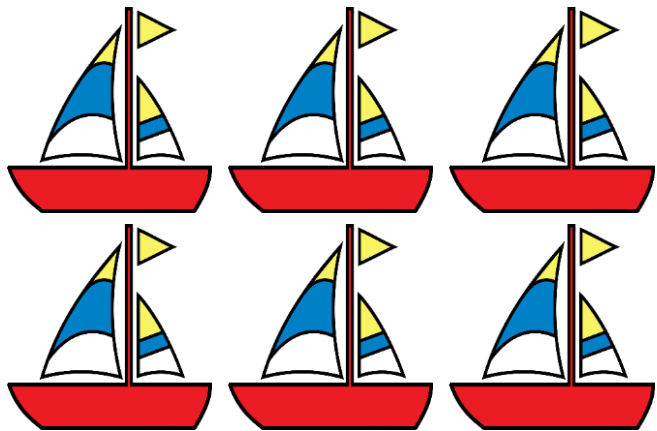


First, there were **6** boats.

Then, **2** boats sailed away.

Now, there are **4** boats.

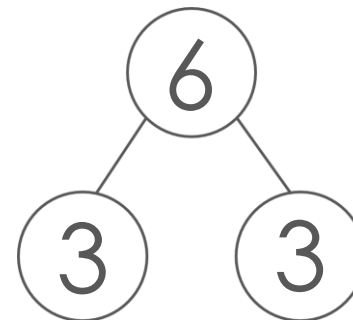


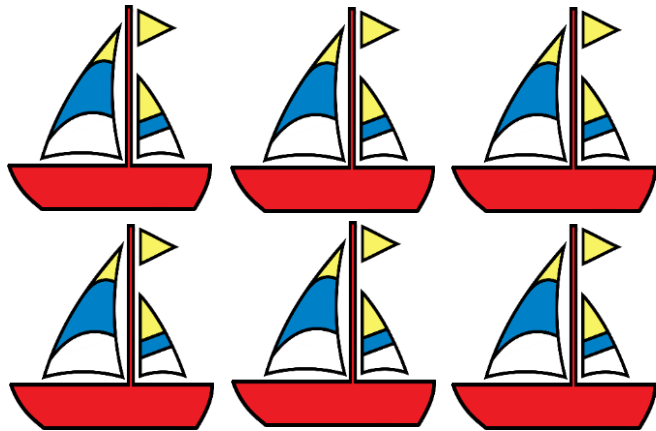


First, there were **6** boats.

Then, **3** boats sailed away.

Now, there are 3 boats.

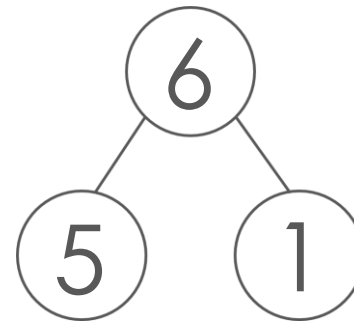


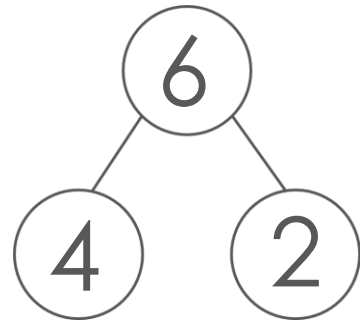


First, there were **6** boats.

Then, **5** boats sailed away.

Now, there is 1 boat.

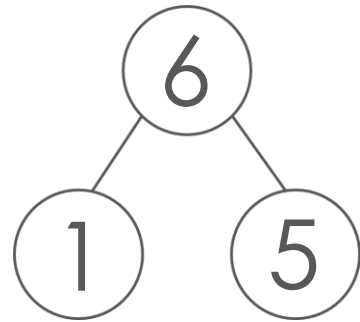




First, there were **6** boats.

Then, **4** boats sailed away.

Now, there are **2** boats.



First, there were **6** boats.

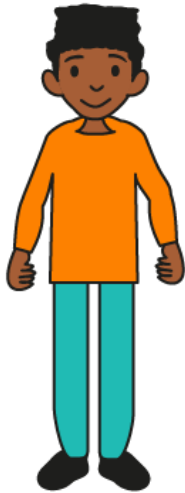
Then, **1** boat sailed away.

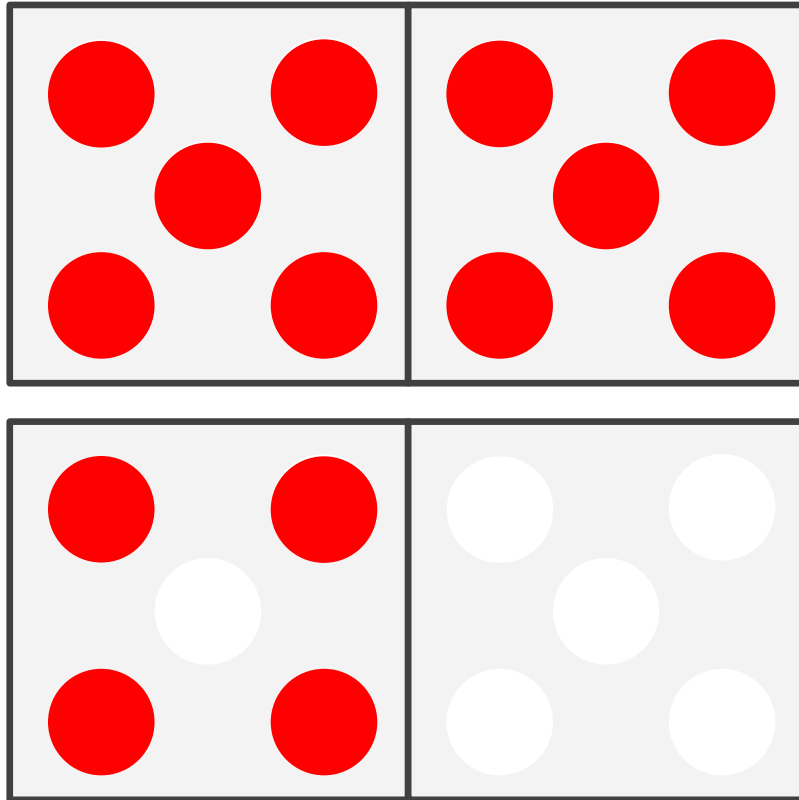
Now, there are **5** boats.

Year 2 Example

Get your fast eyes ready
to say what you see

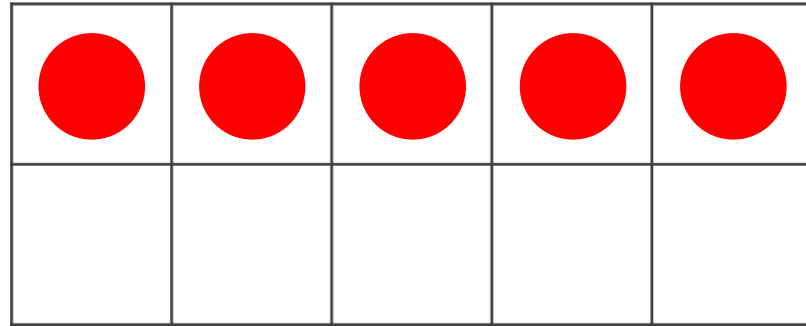
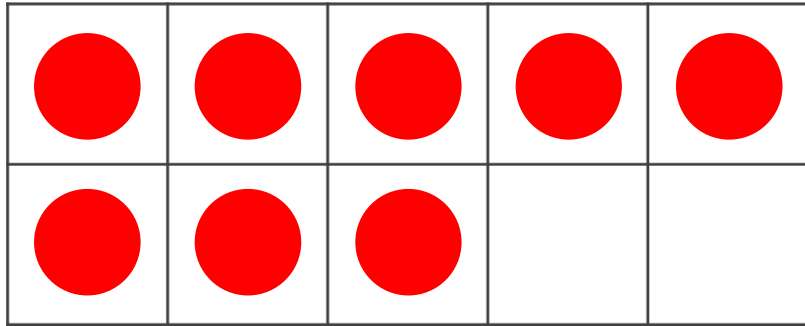
Don't count!
Say the amount!





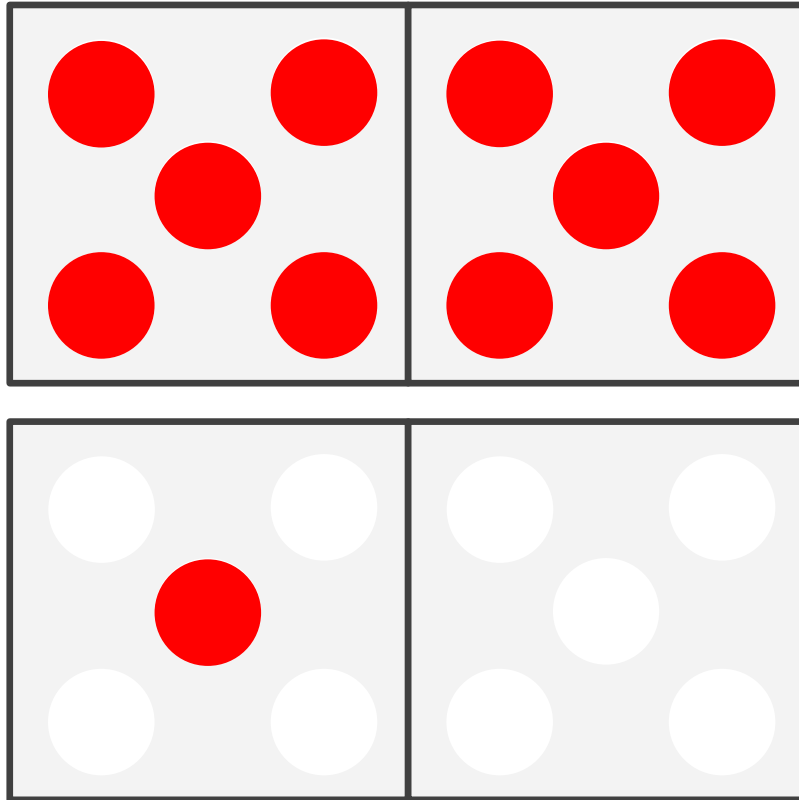
14

____ is made of ____ and ____ .



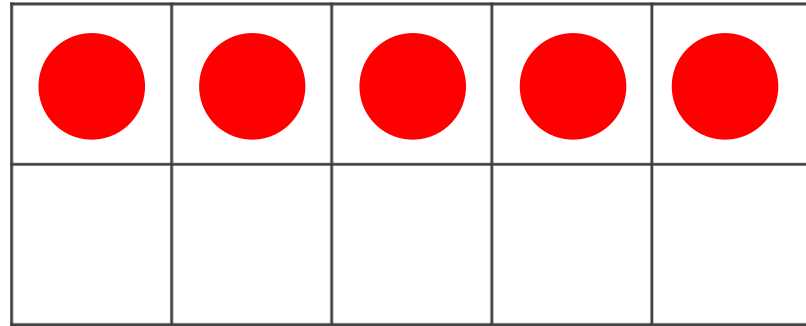
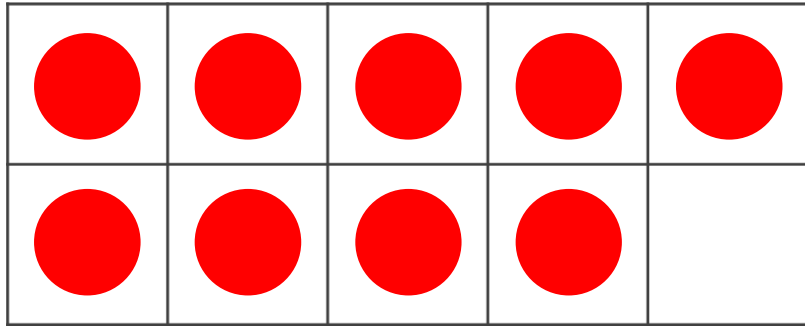
13

____ is made of ____ and ____ .



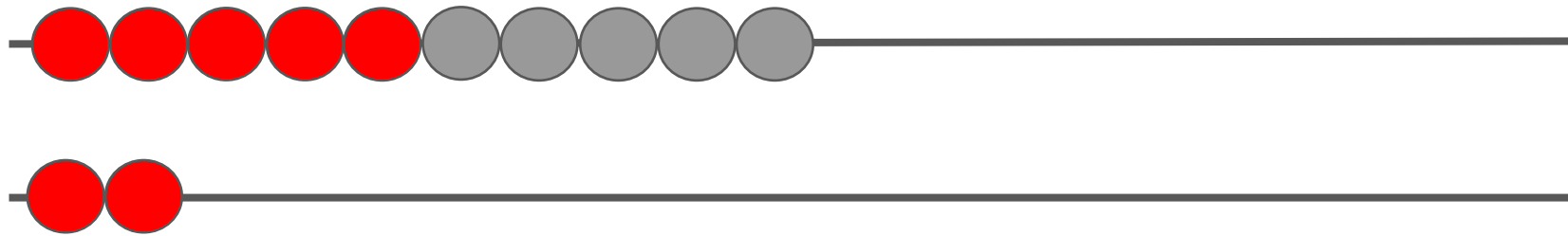
11

____ is made of ____ and ____ .



14

____ is made of ____ and ____ .

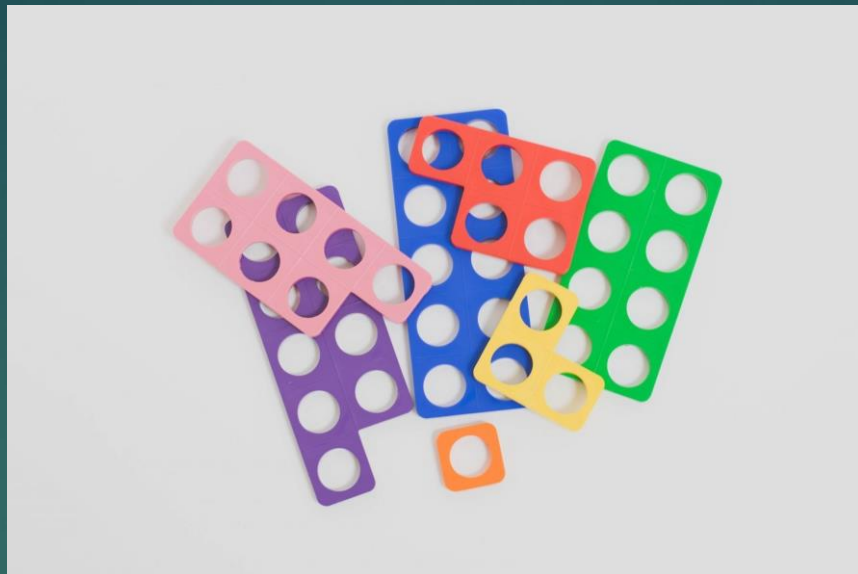


12

____ is made of ____ and ____ .

What is fluency?

1. Counting and number sense: being able to count forward and backward, recognize and represent numbers, and understand the relationship between numbers.
 2. Addition and subtraction: being able to quickly and accurately solve simple addition and subtraction problems using mental and written strategies.
 3. Multiplication and division: being able to understand the concept of multiplication as repeated addition and division as sharing, and use mental and written strategies to solve simple problems.
 4. Measurement: being able to measure and compare lengths, weights, and capacities using standard units of measurement.
 5. Geometry: being able to recognize and describe basic shapes and their properties.
- Developing fluency in maths is important because it lays a strong foundation for higher-level mathematical thinking and problem-solving.



Fluency (5 minutes)



Year 1
Week 9 – Day 4

1. $9 + 4 = ?$



2. Double $3 = ?$

Use...



Number shapes
...to help you

3. $14 - 5 = ?$



Specialist maths interventions and curriculum resources thirdspacelearning.com/

- Adding 1d numbers
- Using number line to add numbers

Version 2 (2022)

Fluency (5 minutes)

- 1) $8 \times 2 =$
- 2) $3 + 8 + 8 =$
- 3) $56 + 17 =$
- 4) $6 \times 2 =$
- 5) $4 + 6 + 6 =$
- 6) $34 + 49 =$

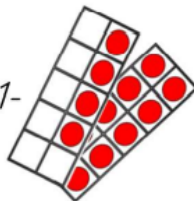
- Fact families

Version 2 (2022)

Bonds to 10

Carpet Games

You will need: Ten frame cards showing 7-10 (5-and-a-bit and pair structure)



Memory Game: Place the cards upside down. The children take turns to turn over 2 cards. When they find a pair which add to 10, they keep the cards. The player who collects the most pairs wins.

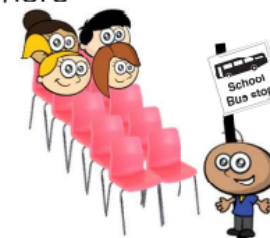
Fish: (For 3-4 players)
Share out the cards.

The aim is to make bonds to 10. The children take turns to ask any player for a card they need. E.g. If they have a 4, they ask one of the other players for a 6. Once they have made a bond to 10, they put that pair down. The first player to put down all of their cards wins the game.

Enhancements to areas of learning

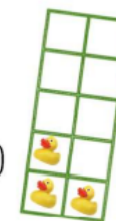
Outdoors

Place 10 chairs into 5 rows of 2 to resemble the seats on a bus. Ask: How many passengers are there on the bus? How many more passengers could ride on the bus? How many are getting on or off at the next stop? How many are on the bus now?



10 Hunt

Hide 10 items (rubber ducks, beanbags etc) around the outside area and chalk a large 10 frame onto the ground. As the children find the items, they put them into the 10 frame. Prompt the children to use the 10 frame to help them see how many they have found and how many are still hiding.



WhiteRose Main Maths



Collect a variety of different containers.



Which do you think has the greatest capacity?

How could you work out which has the greatest capacity?



There are 3 bridges.

- Bridge A is double the length of Bridge B.
- Bridge C is 4 m longer than Bridge A.
- Bridge B is 9 m long.

Order the bridges from shortest to longest.

$$\text{Bridge A} = 18 \text{ m}$$

$$\text{Bridge B} = 9 \text{ m}$$

$$\text{Bridge C} = 22 \text{ m}$$

$$9 \times 2 = 18$$

$$18 + 4 = 22$$

Have a think



Reasoning Activities

Reasoning



The glasses are the same size, so the volume of juice in each glass is the same.



Do you agree with Tiny?
Explain your reasons.

Jo and Max are comparing their glasses.



Jo Max

My glass can hold more water.



Jo

No, my glass can hold more water.



Max

Why do Jo and Max think this?

Whose glass can hold more water?

Jo Max cannot tell

Reasoning

Four children are measuring their heights.

Fay is taller than Ann, but not as tall as Dan.

Tom is taller than Dan.

Write the children's names in order of their heights.

Start with the shortest child.

An oak tree is 20 m tall.

An elm tree is 15 m tall.

A pine tree is taller than an elm tree, but shorter than an oak tree.

How tall could the pine tree be?

Compare answers with a partner.

A plane is 55 m long.

A boat is 95 m long.

A scooter is 55 cm long.

Tiny wants to put the lengths in order.

I cannot order the lengths, because the units are different.



Do you agree with Tiny?
Why?



Reasoning

- ▶ Mathematical reasoning in KS1 (Key Stage 1) refers to the ability to use mathematical concepts and procedures to solve problems, make connections between different mathematical ideas, and explain and justify mathematical solutions and strategies. It involves understanding and applying mathematical concepts in a logical and systematic way.
- ▶ Examples of mathematical reasoning skills in KS1 include:
 1. Identifying patterns and relationships between numbers and shapes
 2. Using visual representations to solve problems, such as diagrams or pictures
 3. Making generalisations about mathematical concepts and procedures based on examples and evidence
 4. Using logical reasoning to solve problems and make predictions
 5. Explaining and justifying mathematical solutions and strategies using mathematical language.
- ▶ Developing mathematical reasoning skills in KS1 is important because it helps students to think critically and creatively about mathematical problems, and to develop a deeper understanding of mathematical concepts and procedures.

At home...

Keep it simple – practise what they are already learning at school that is usually identified on their homework.

Keep it fun – there are lots of games and computer games available on our school website, activities and can be done inside or outside.

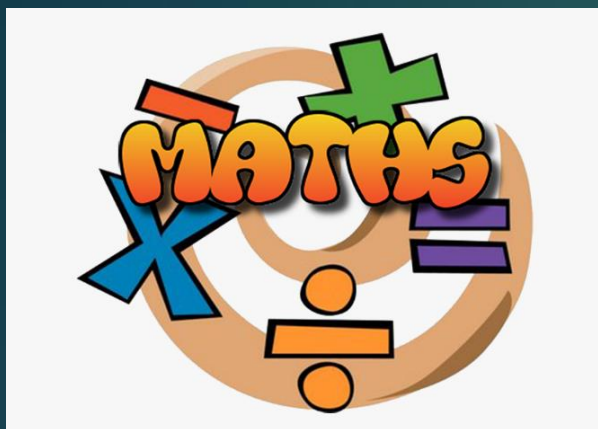
Keep it real – practise maths for real purposes such as going shopping, sorting out laundry, measuring for cooking etc. Children are more motivated to learn when there is a real purpose for their learning.

When faced with a problem, encourage your child to ask these questions... Can I do this in my head? Could I use drawings or jottings to help me? Do I need to use a written method? Can I estimate and check the answer? Does the answer sound right?

Activities you could try at home

- ▶ 1. Saying numbers
- ▶ 2. Counting multiples
- ▶ 3. Place value
- ▶ 4. Reading Numbers
- ▶ 5. Subitising
- ▶ 6. Doubling / Halving
- ▶ 7. Addition and subtraction
- ▶ 8. Number Bonds
- ▶ 9. Partitioning
- ▶ 10. Timetables





Other Ideas for at home



In the street

- Recognising bus numbers
- Number plate hunt. Who can find a 7? Add the numbers up.
- Comparing door numbers
- Counting – how many lampposts on the way to school?

Doing the washing

- Counting in 2s – matching shoes
- Sorting by colour and size.
- Matching/pairing up socks.
- Find four shoes that are different sizes. Can you put them in order.





Time

- What day is it yesterday, today, tomorrow?
- Use timers, phones and clocks to measure short periods of time.
- Count down 10/ 20 seconds to get to the table/ into bed etc.
- Recognising numbers on the clock. If you cover a number, what number was missing?

Going shopping

- Reading price tags
- Counting items into the basket
- Finding and counting coins
- Comparing weights – which is heavier





Food!

- Can you cut your toast into 4 pieces? Can you cut it into triangles?
- Setting the table. Counting the right number of plates etc. How many more do we need?
- Can you make shapes/ patterns out of the knives and forks. Can you put them in the right place in the drawers?
- Helping with the cooking by measuring and counting ingredients.
- Setting the timer.
- Positional language at dinner time: what is on the rice, where are the carrots etc?

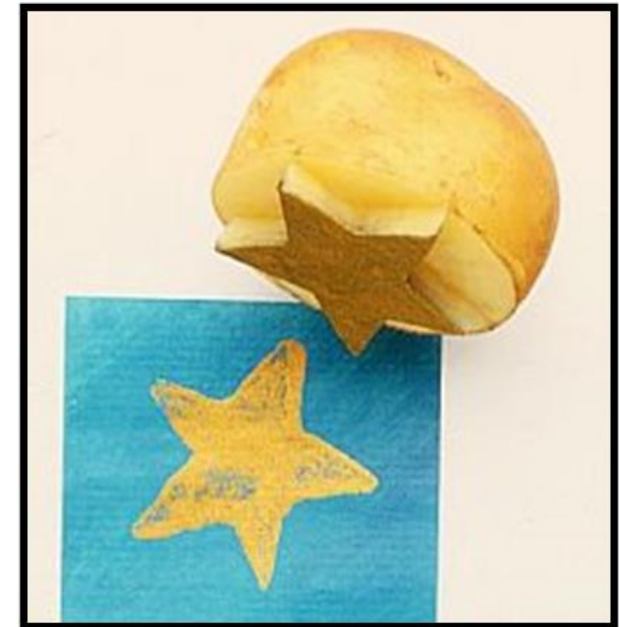


Measuring

- Are you taller than a ...?
- Marking height on the wall.
- Cut hand shapes out of paper. How many hands long is the couch? How long is the table? Which is longer?
- Who has the biggest hands in our family?
- How many steps from the gate to the front door?

Shapes

- Cut a potato into shapes (circles, triangle etc). Use with paint to make pictures and patterns.
- Cut out shapes from coloured paper/newspaper and arrange into pictures.
- Shape hunt: Can you find a square in your house (windows etc), a circle ...



Games



- Putting cards into piles
- Jigsaws (you can make your own by cutting up a magazine picture)
- Snap (matching pairs) or Happy Families (collect 4 of a kind)
- Snakes and ladders or other simple dice games.
- Adding numbers on two dice.
- Bingo, with numbers or shapes
- Hopscotch



Number rhymes and songs

*Eg: 5 little monkeys jumping on the bed
One fell off and bumped his head
Mummy called the doctor and the doctor said
"No more monkeys jumping on the bed!"
4 little monkeys jumping on the bed ...*





What will my child be learning?

The link below will take you to the programmes of study for each year group. This shows you what your child will be learning when at school and what a child of that age is expected to achieve by the end of the year (Age Related Expectations).

[National Curriculum Programmes of Study for Key Stage 1 and Key Stage 2](#)

Each year group will also re-visit teaching from previous year groups to ensure knowledge is consolidated and secure.

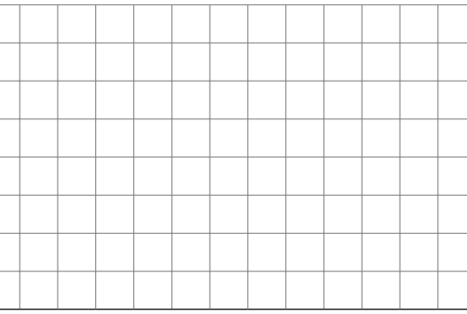
SATS

Children do standardised statutory tests in Y2 and Y6 so that they can be compared nationally.

Y2s have two papers – some example questions below


7 $5 \times 6 =$


11 $68 + 20 =$



10 Sam has cards that are numbered 1 to 8

Sam turns over two of the cards.

8 1 5 

 2 4 7

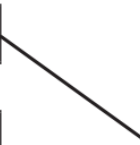
Which two cards has Sam turned over?

Write the numbers on the cards below.

6 Match each shape to the correct description.

One is done for you.

shape	description
triangle	has 8 vertices
square	has 3 sides
octagon	has 4 right angles
circle	has no vertices



1 mark

Websites to support children's Maths skills

www.urbrainy.com

- Multiplication Tables Check (MTC) Replicates what Y4 children have to do in the MTC in June.

www.mathswithamouse.co.uk

- Year 4 MTC Preparation Fun!

www.topmarks.co.uk

- Great maths games, such as: - Hit the Button, Coconut multiples and Daily 10 (excellent for rapid recall)

www.ttrockstars.co.uk

- Competitive times tables. Every pupil from Year 2 upwards has their own log-in

BBC Bitesize

- Lots of information alongside short videos help to make the learning enjoyable and accessible for all children

www.nrich.co.uk

- Problem solving and challenge questions

www.primarygames.com

-Lots of maths games

www.mathsisfun.com

- Provides step-by-step guidance and explanations on 'how' to tackle specific mathematical concepts.

- Create worksheets to print off or complete online!

Maths - Oxford Owl

- Maths at home. maths skills and maths glossary