



Welcome to our KS1 Maths Parent Workshop



Aims:

- To give an overview of how maths is taught at Ellison Boulter's
- To share some of the practical resources which are used by children in maths lessons
- To share strategies you could use to support your child(ren) at home
- To provide time to look more specifically at your child(ren)'s year group –
 - What are the key Maths objectives being taught?
 - How are these taught in school?
 - How can you support your child at home with maths?
- To answer any questions you may have



When children leave Ellison Boulton we would like them to:

- Enjoy maths and see its relevance in 'the real world'.
- Have a growth mindset about maths – developing a 'can do'/'have a go' approach.
- Have secure knowledge of number facts and a good understanding of the four operations.
- Use this knowledge to carry out calculations mentally.
- Make use of diagrams and jottings to help record the steps to solving a problem.
- Have an efficient, reliable, written method of calculation for each operation.
- Have the skills to problem solve through mathematical thinking and reasoning by spotting patterns and making connections.



Number

Number is key to all other aspects of Maths.

It includes:

- Counting
- Understanding number
- Knowing and using number facts
- Calculating

You can make a difference to your child's learning by playing simple Maths games **little and often**. With just a few minutes each day, children's confidence and self-esteem can soar.



All children will have access to the National Curriculum for Mathematics (2014). This is set down under the following aims –

Fluency - 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.

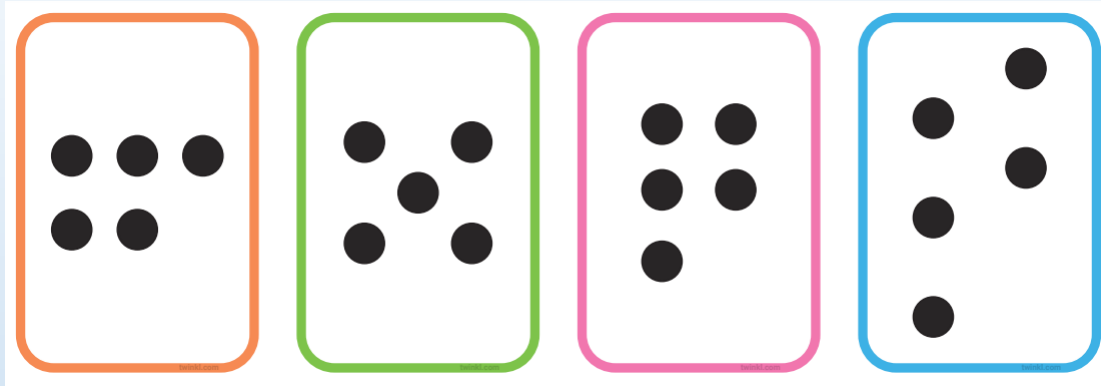
Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

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.

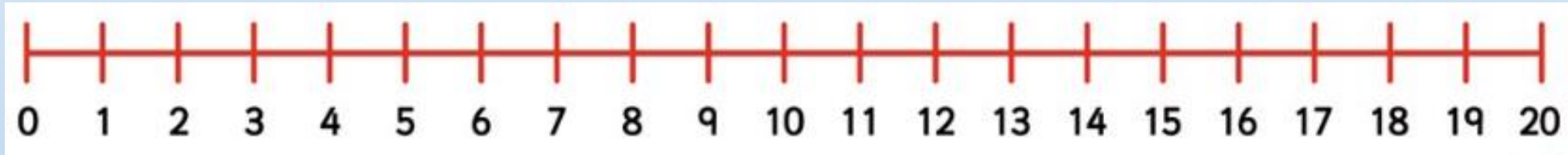
Fundamental Skills



Subitising



Counting



Doubling and halving

Number bonds – How many ways can you make 3, 4, 5 etc
Just knowing that $5 + 3 = 8$ and using it to know $50 + 30$

Odd and even numbers



Calculation Methods

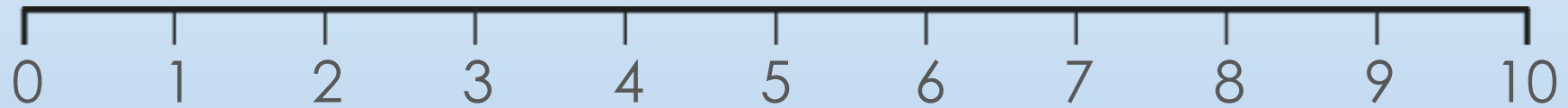
- The Maths work that your child is doing in school may look different to the kind of 'sums' you remember.
- Many parents express concerns about helping at home and showing 'wrong' methods to their children.
- Our Calculation Policy outlines how Maths is taught from Reception through to Year 6 (copies are on our website).

National Curriculum

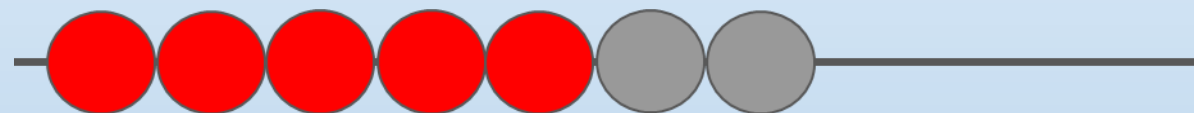
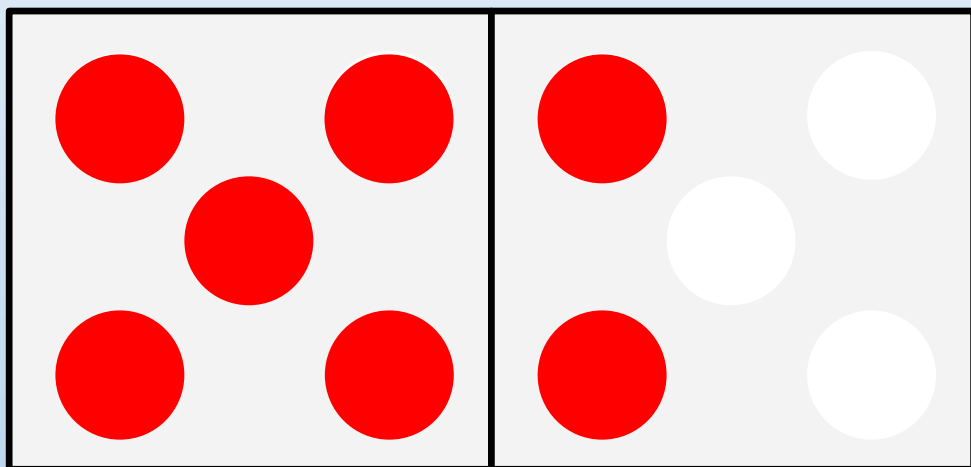


- **Key stage 1 - years 1 and 2**
- The principal focus of mathematics teaching in key stage 1 is to ensure that pupils **develop confidence and mental fluency with whole numbers, counting and place value.** This should involve working with numerals, words and the 4 operations, including with practical resources [for example, concrete objects and measuring tools].
- At this stage, pupils should **develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary.** Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
- **By the end of year 2, pupils should know the number bonds to 20** and be precise in using and understanding place value. **An emphasis on practice** at this early stage will aid fluency.
- Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

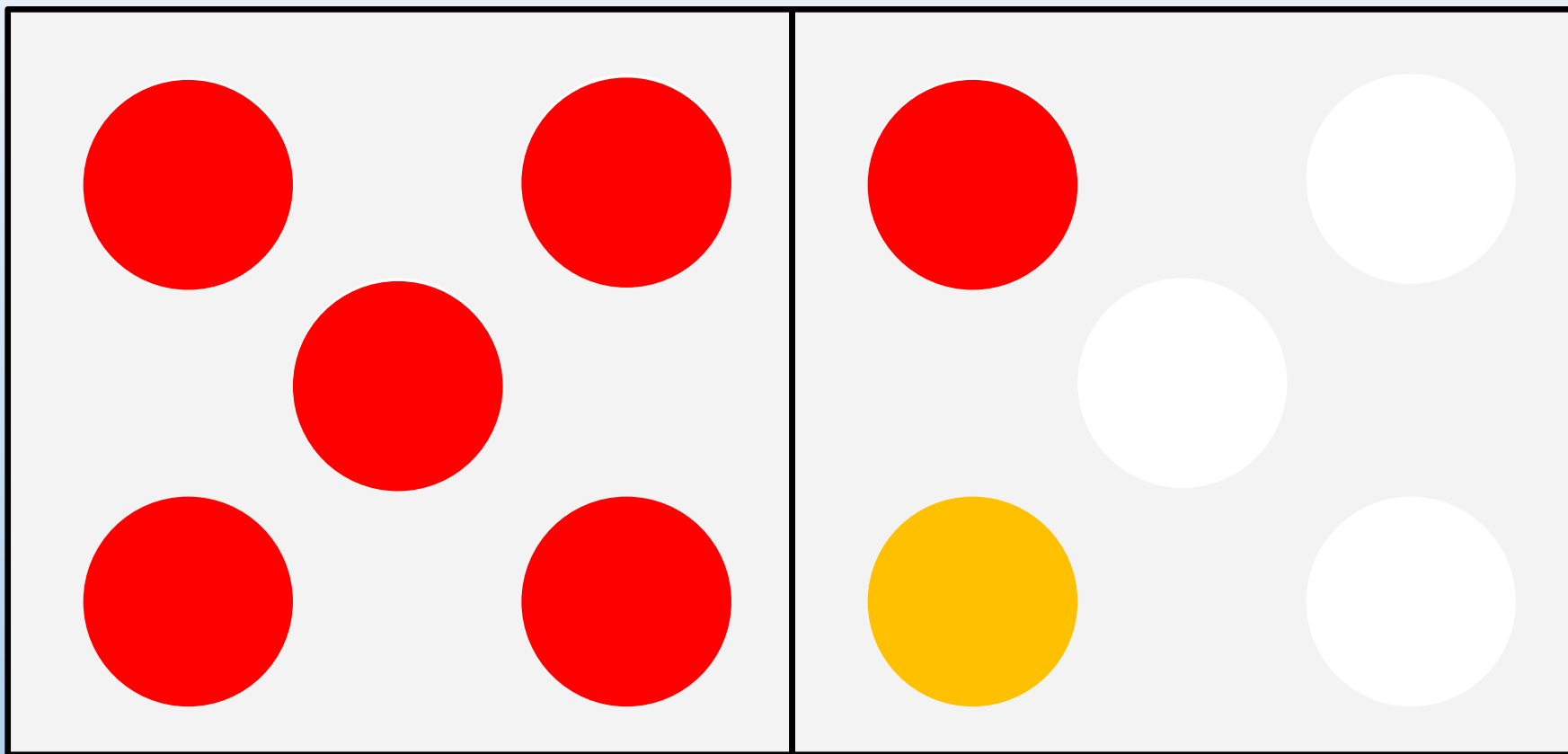
Describe where 7 is on a number line in relation to 5 and 10.



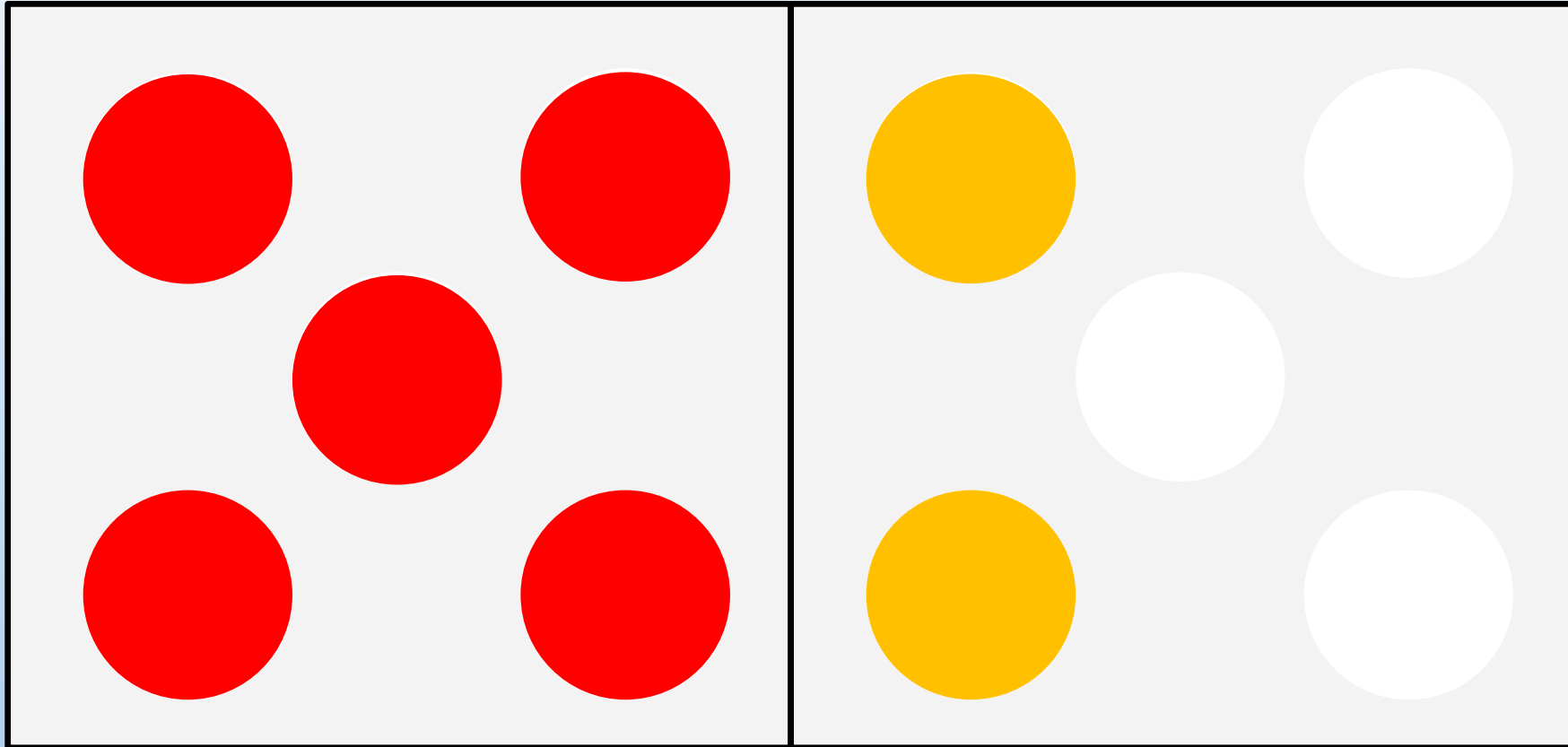
Think about 7 on the double dice frame and the rekenrek.
What's the same? What's different?



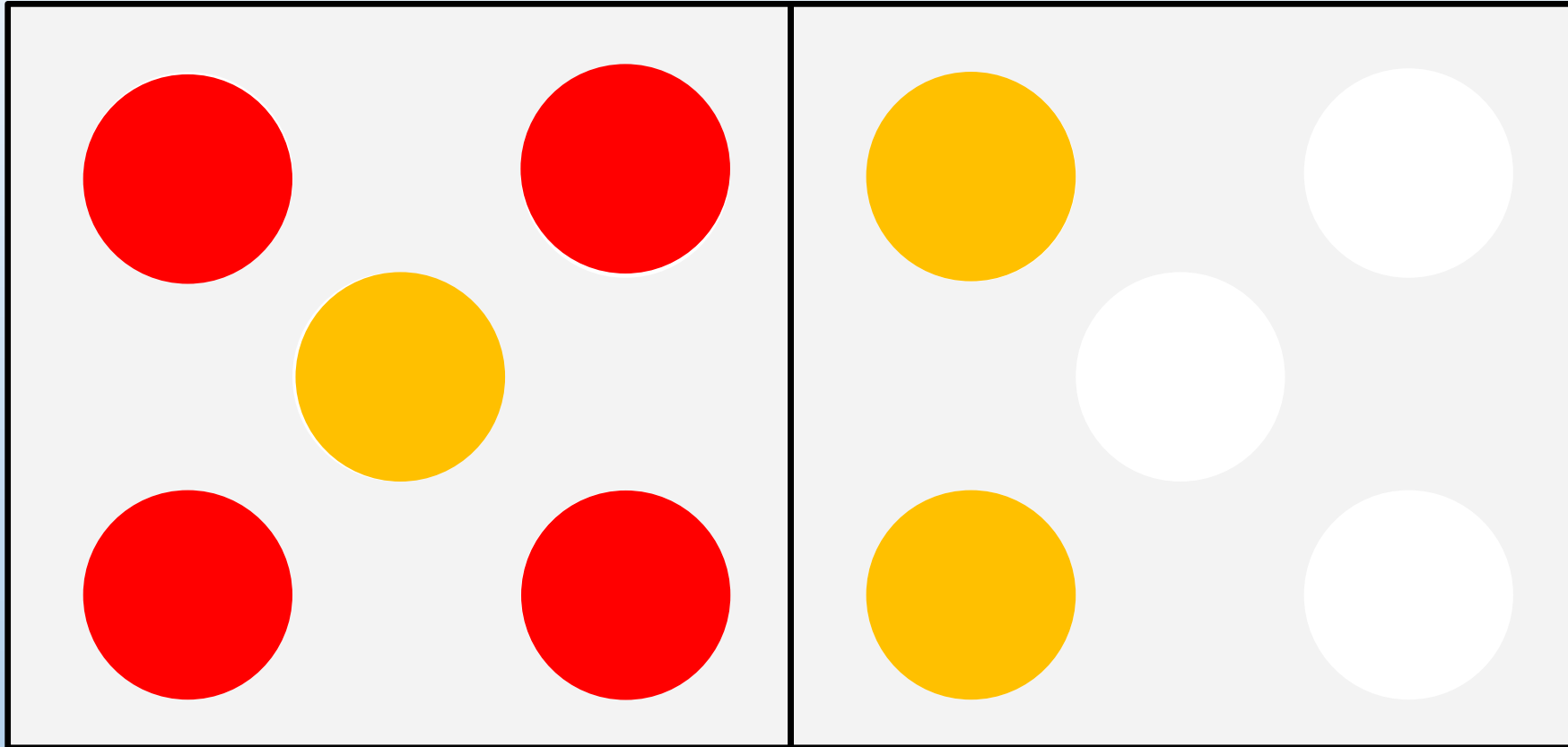
Use your rekenrek to make the number shown. Then make 7.



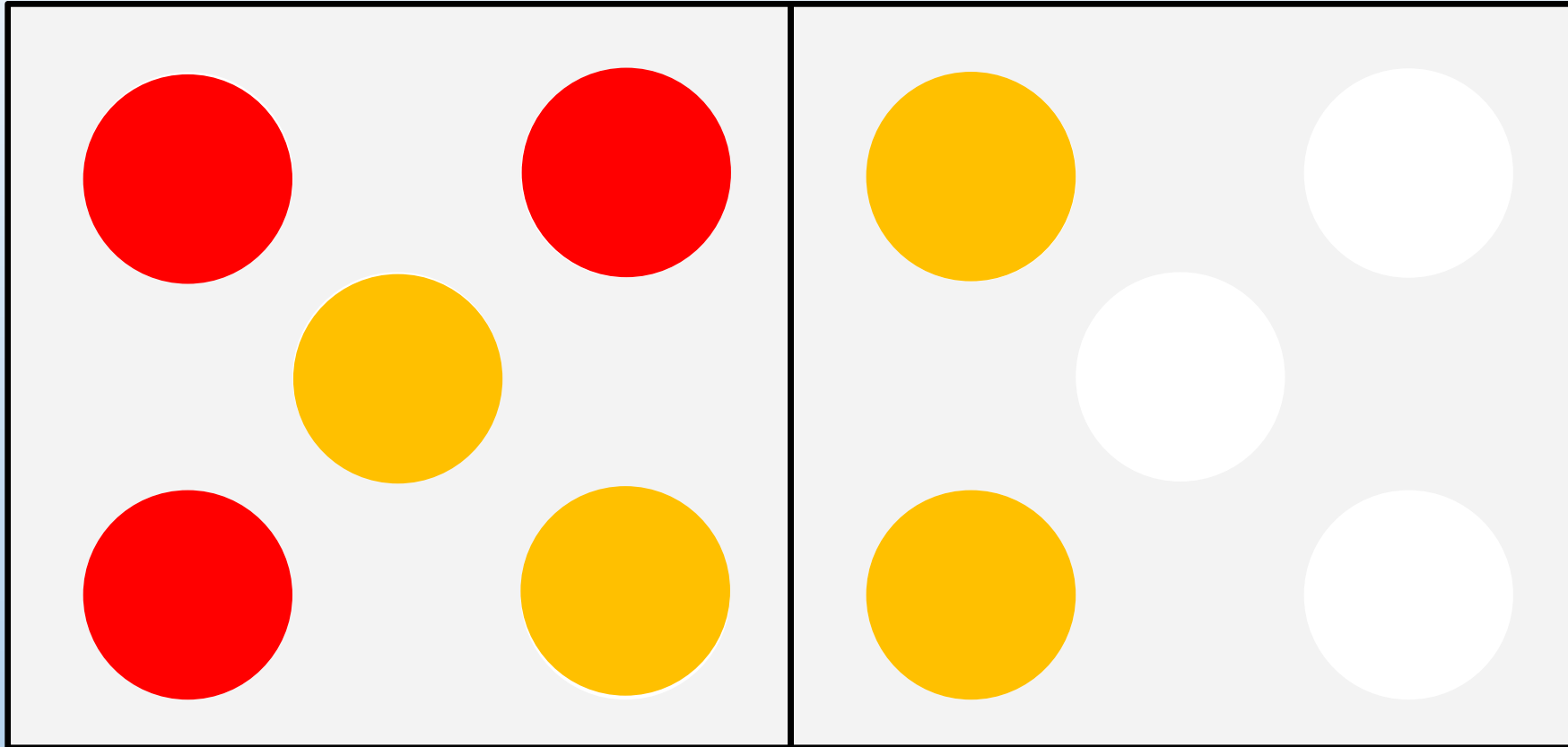
_____ needs _____ to make 7;
_____ and _____ make 7.



_____ needs _____ to make 7;
_____ and _____ make 7.



_____ needs _____ to make 7;
_____ and _____ make 7.



____ needs ____ to make 7;
____ and ____ make 7.

+	0	1	2	3	4	5	6	7	8	9	10
0	0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9	0+10
1	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+10
2	2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9	2+10
3	3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9	3+10
4	4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9	4+10
5	5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9	5+10
6	6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9	6+10
7	7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9	7+10
8	8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9	8+10
9	9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	9+10
10	10+0	10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9	10+10

- Adding 1
- Doubles
- Adding 2
- Bonds to 10
- Adding 10
- Adding 0
- Near doubles
- Bridging/compensating

Show the KS1 progression of number facts.

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

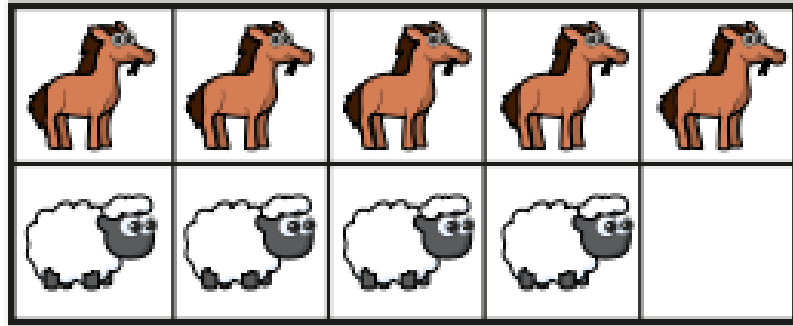
The pupil can:

- 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).

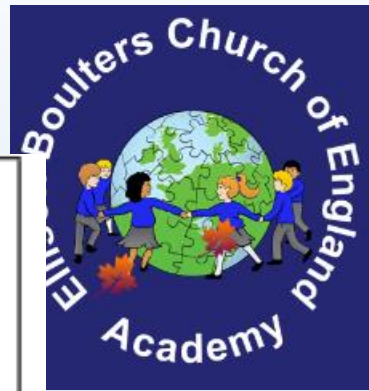
Place Value

hundreds	tens	ones
3	8	2
300	80	2

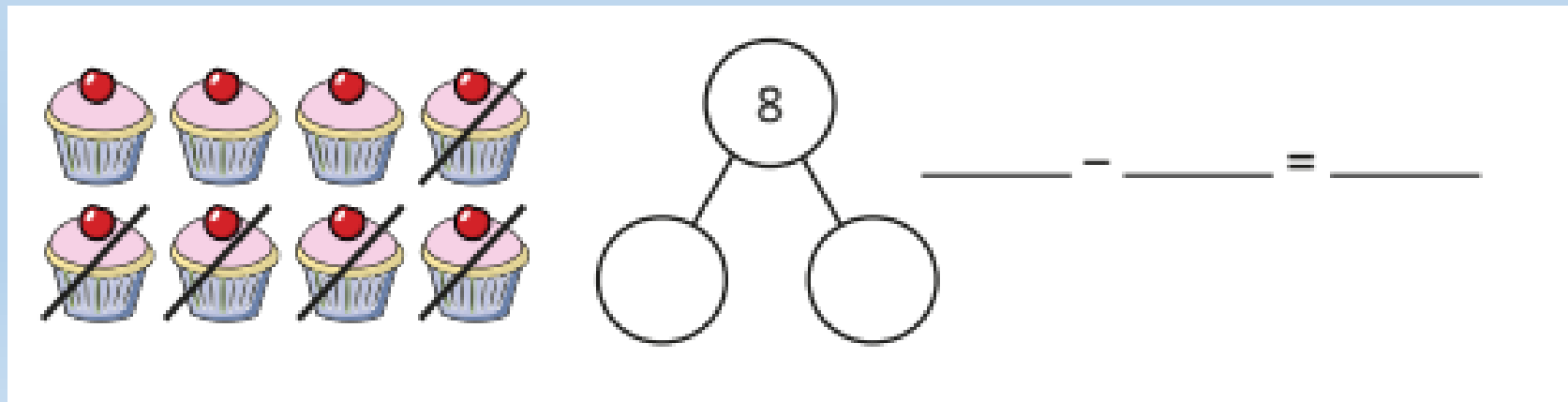
Year 1 Addition



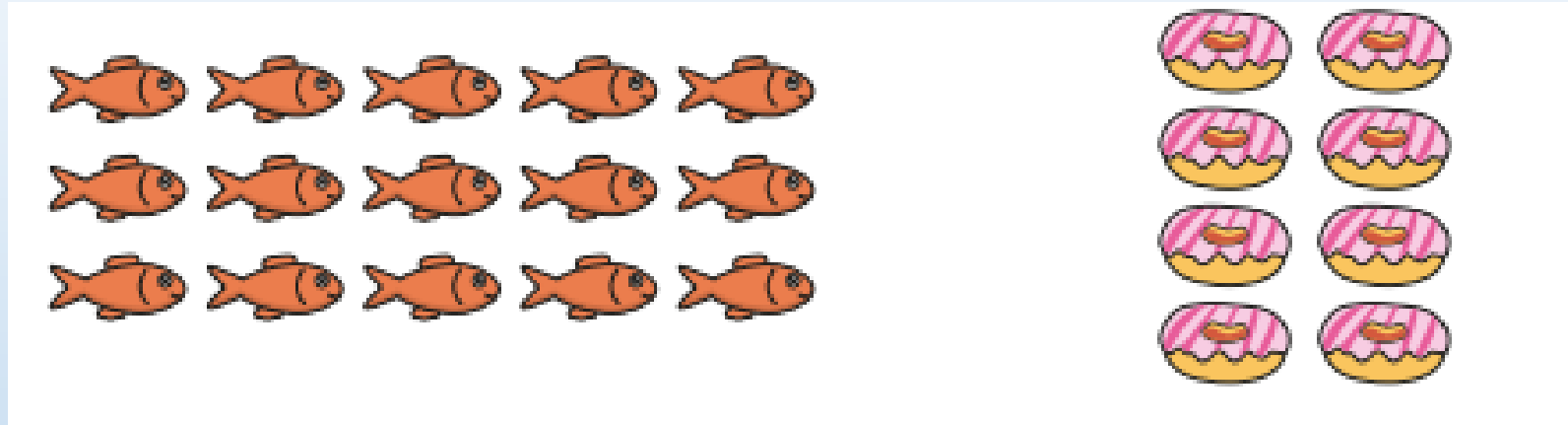
	 $\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$ $\underline{\quad\quad} = \underline{\quad\quad} + \underline{\quad\quad}$
_____ is a part. _____ is a part. The whole is _____	



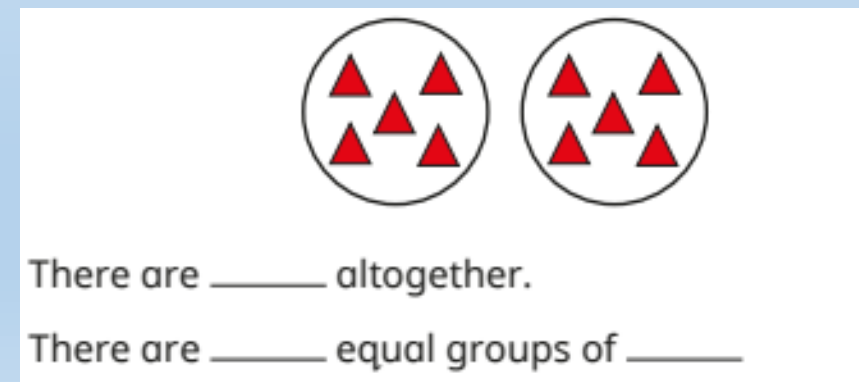
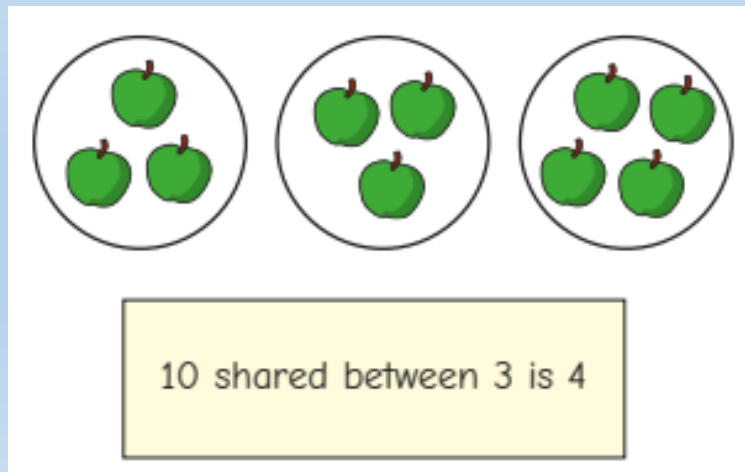
Year 1 Subtraction



Year 1 Multiplication



Year 1 Division



Year 2 Addition – Column addition

$$43 + 22 = \square$$

T	O

	T	O
+		



Year 2 Subtraction – Column Subtraction

$$43 - 22 = \square$$

T	O



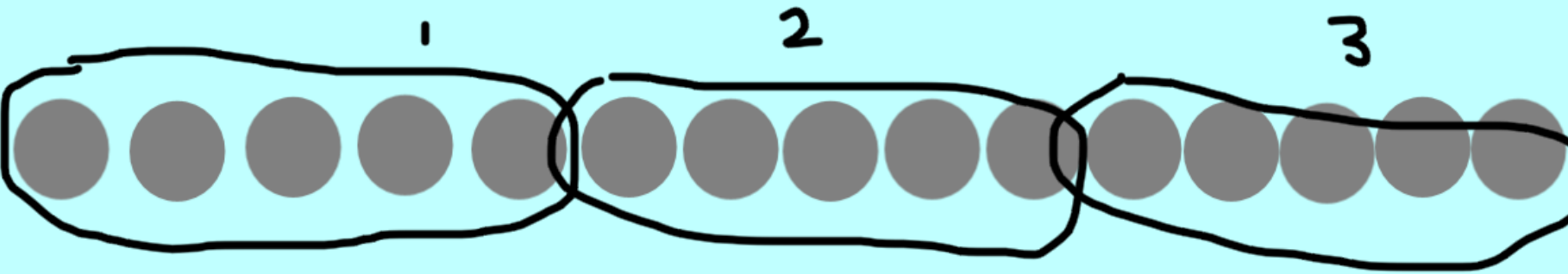
Year 2 Multiplication – Arrays & Multiplication facts



___ × ___ = ___ ___ × ___ = ___

Year 2 Division - Grouping & Division facts

$15 \div 5 =$





How can I support at home?

- Play games!
- Number bonds
- Times table practice
- Notice and discuss patterns and Maths all around you.

Why play games?

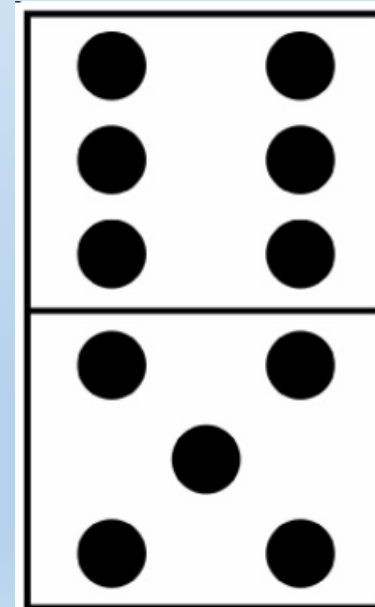
- ▶ It cannot be stressed enough how important playing games with your child is for not only developing their mathematical skills but also their all round thinking, logic, strategy and problem solving skills; as well as developing vital speaking and listening and social skills, such as turn taking and learning that we can't always win!
- ▶ Most importantly, they should be fun and a chance to share time together.

Games to play

- ▶ **Snakes and ladders** – as it is, vary dice numbers
- ▶ **Guess Who?** – systematic working, exploring possibilities
- ▶ **Junior Monopoly** – money
- ▶ **Cluedo** – strategy
- ▶ **Battleships** – coordinates and strategy
- ▶ **Noughts and crosses** – strategy
- ▶ **Connect 4** – strategy
- ▶ **Bingo/beetle drive**

Simple, versatile and practical resources you could use at home:

- Dice (subitise)
- Dominoes
- Playing cards – collecting totals, matching and remembering numbers.



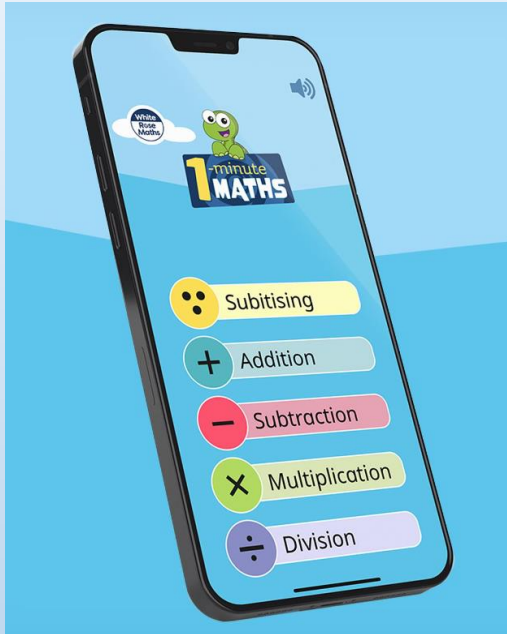
Everyday 'real' maths

- Counting up and down the stairs.
- Number rhymes.
- Setting the table – cutlery, mats etc.
- Pair socks when getting in washing.
- Counting cars on the way to school.
- Spotting different numbers in the environment – door numbers, car number plates.
- Out shopping – making totals, finding change, % discounts.
- Time – plan days out, what time to leave, how much money to take.
- Cooking – weighing ingredients, reading scales, adapting recipes, fractions.
- Keeping score in games.



Online resources -

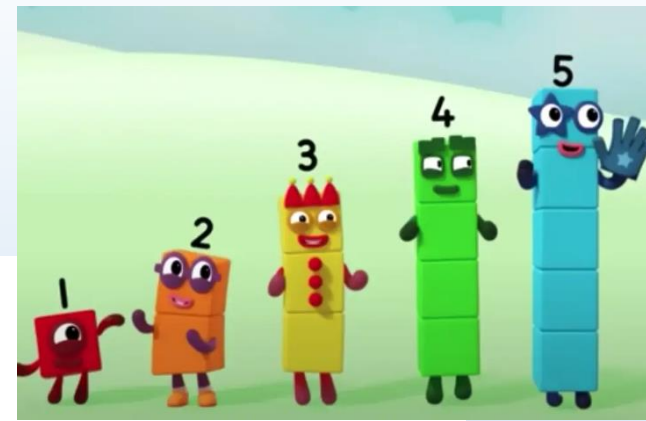
<https://whiteroseeducation.com/>



Home learning

All of our home learning lessons for early years through to Year 11 are available now. Every lesson comes with a short video showing you clearly and simply how to help your child complete the activity successfully.

SCHEME OF LEARNING 



<https://trockstars.com/>

From Year 2



Some advice



- Give lots of praise and encouragement
- Don't do lots of practice in one session. Little and often is much more beneficial.
- Remember that your focused attention is what children like and respond to.
- Never say that *you* were never any good at Maths or give any indication that it is ok to 'give up on Maths'.