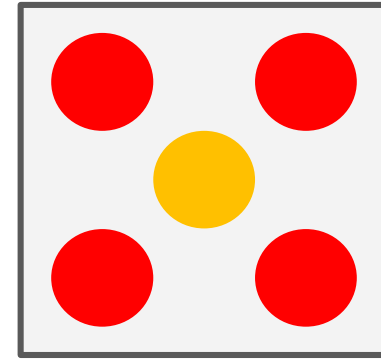


Mastering Number at Home – Year 2

Find a seat and
leave at least 1
space for your child
to sit at.



Aims of the session

- Share with you some of the things your child will be learning in school
- Improve your confidence in helping your child with maths
- Create some games and activities for use at home
- Share with you the home learning activities

Why engage you in your child's learning?

Research evidence suggests that when parents are engaged in their children's learning, outcomes for children can be improved.

The research also highlights the fact that parents feel they need more support to understand the current curriculum content and how they can support their child with their learning at home.

Desforges, C. and Abouchar, A. (2003); Goodall, J. and Vorhaus, J. (2011);
The Education Endowment Foundation (2019); Sarjeant, S. (2021)

BBC News Report 2006

69% of parents do not help children with their homework because...

Everything has changed since they were at school and they are not confident in the new methods.

BBC News Report 2010

82% of parents feel unable to help pupils with their homework.

The 'problem' with maths

"My dad thinks that the way **he** does maths is easier and better than **my** way but he doesn't understand my way and his way confuses me."

Pupil – Catford High School

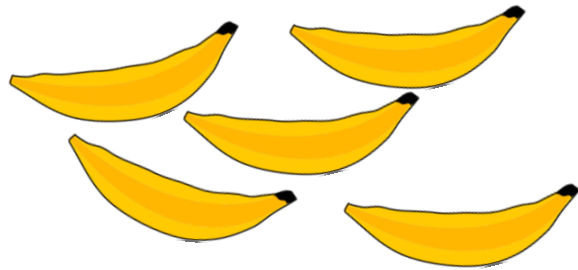


That's not the way we do it in school!

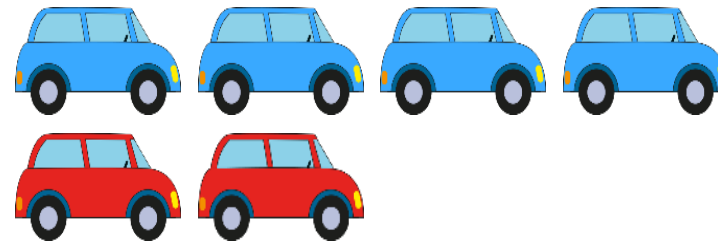
How does Mastering Number help us to teach maths in school?

The Mastering Number Programme in Year 2 will help your child to develop good *number sense*.

Some of the things they are learning include:



Recognising small numbers of objects without having to count them (subitising)



Know different ways to 'make' (compose) a number

How does knowing how numbers are 'made' help children?

I know that 8 is made of 5 and 3 so I will also know...

$$5 + 3 = 8$$

$$8 - 3 = 5$$

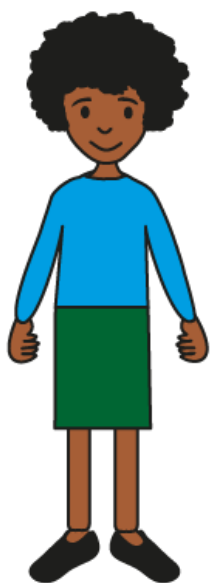
$$80 - 30 = 50$$

$$50 + 30 = 80$$

$$0.5 + 0.3 = 0.8$$

$$500 + 300 = 800$$

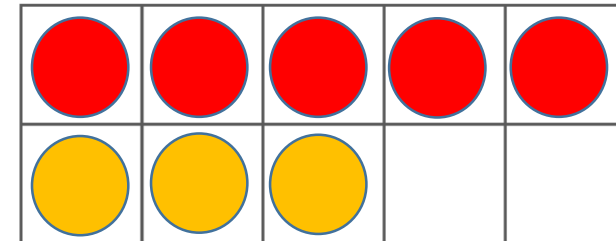
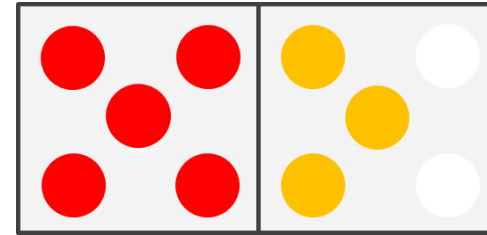
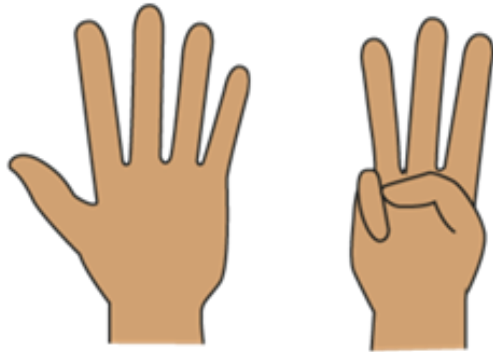
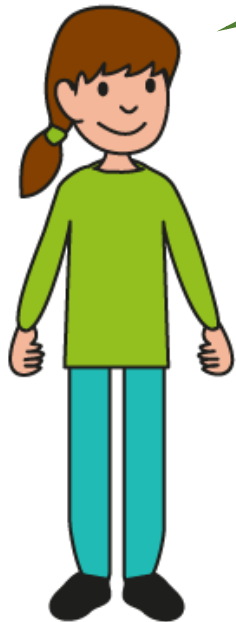
$$0.8 - 0.3 = 0.5$$



Looking at the numbers 6, 7, 8 and 9

Children will learn that these numbers all have 5 'inside them', as well as seeing all the ways they can be made.

I know that 8 is made of 5 and 3.

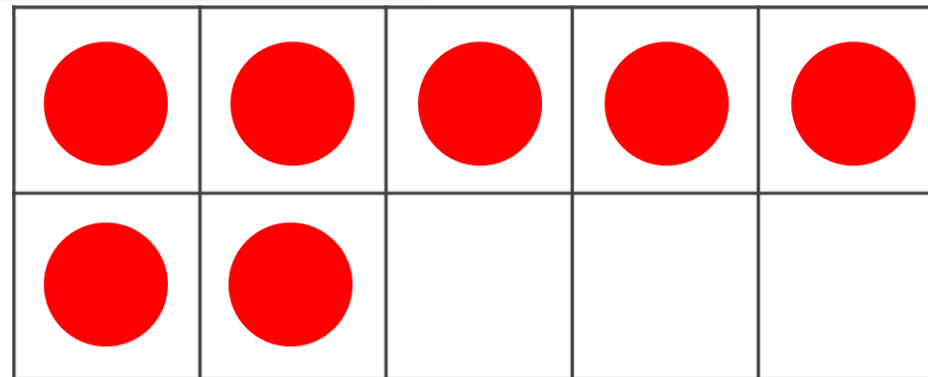
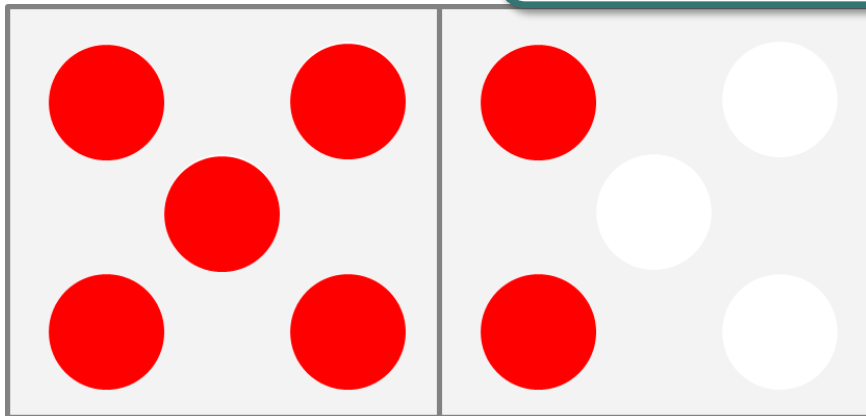


Play 'Copy my number'

Grown-ups: place 7 counters on the dice frame as shown.

Children: can you make the same number on the 10 frame showing it as '5 and a bit'?

_____ is made of 5 and _____.
5 and _____ make _____.

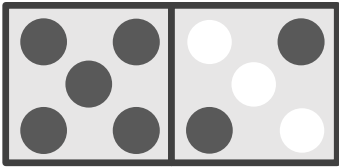
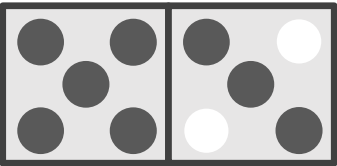
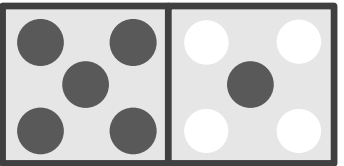
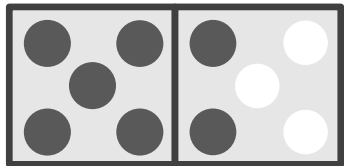


Can your child do it when you hide the dice frame
after showing them once? 'Close your eyes and
visualise what you saw...'

Now try again for 8 and 9.

Play 'Shows 7 / Does not show 7'

Sort the cards:



Shows 7	Does NOT show 7

Use the dice frame cards from your pack to discuss and sort the cards as to whether they show 7 or not. You might play a game with your child, taking it in turns to decide and place the cards.

When they are all placed, look at the cards that do NOT show 7.

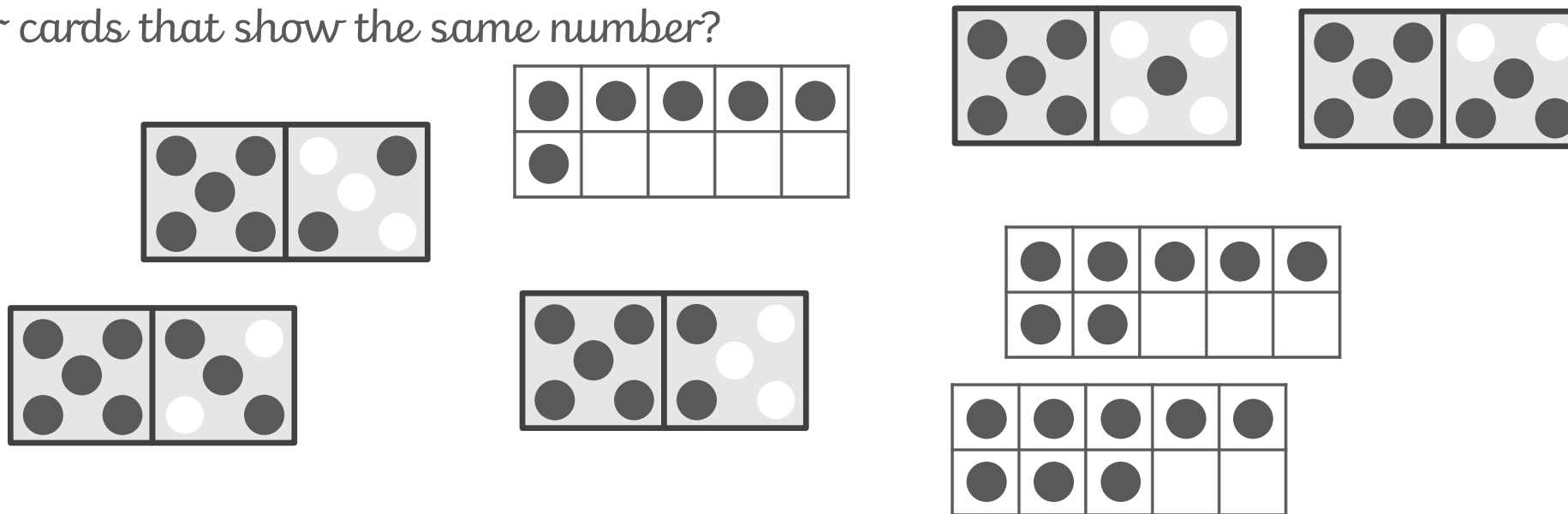
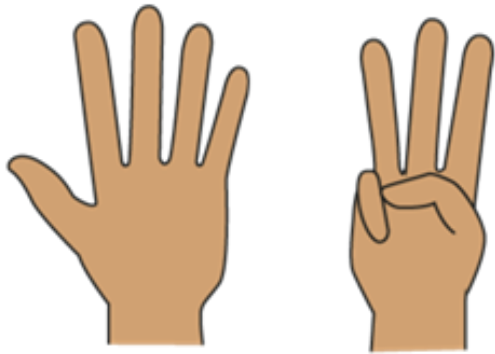
Ask your child – why do these cards NOT show 7? Allow them to reason:
7 is made of 5 and 2 and this card only has 5 and 1.

We don't just want children to say, 'because it is 6.'
Research shows that if they can reason about when an amount is not a given number, they are more able to reason about when it is.

Play 'Match my fingers'

Grown-ups: use your fingers to show a number between 5 and 9. MAKE SURE THAT ONE HAND IS SHOWING 5.

Children: can you find four cards that show the same number?

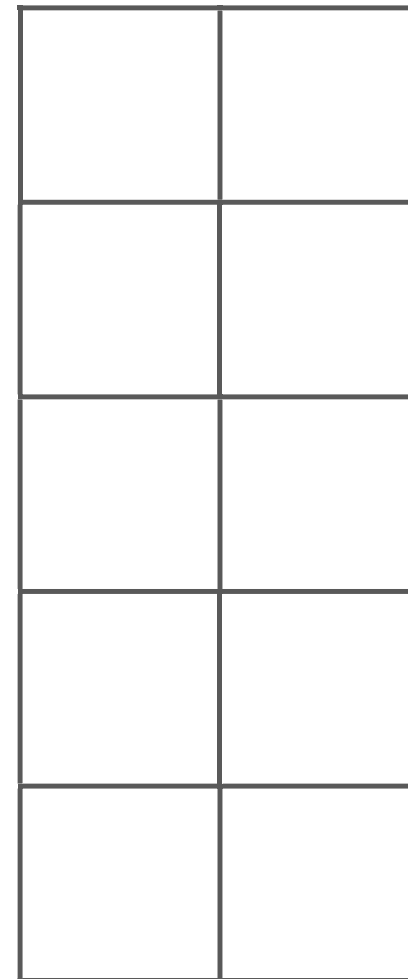
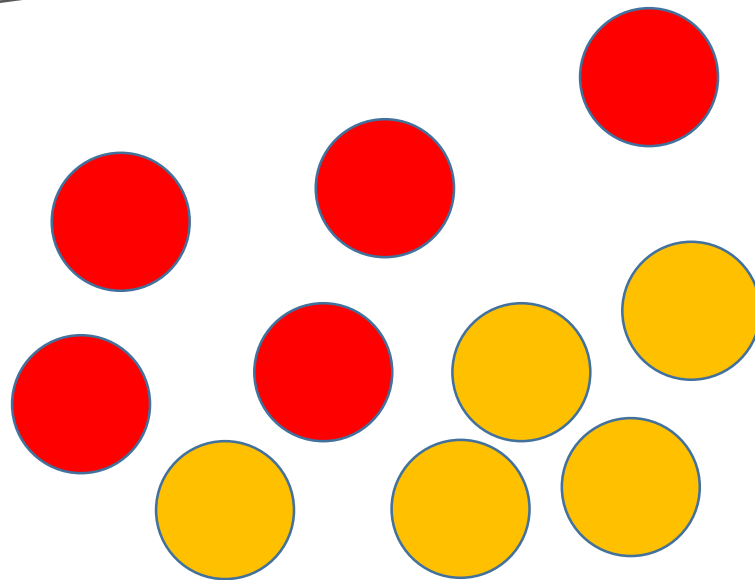
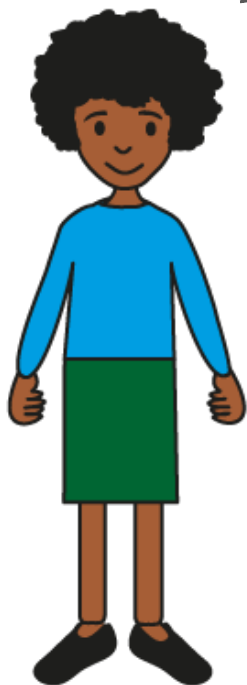


Knowing that the numbers are a bit more than 5 and a bit less than 10 means that we think of the numbers relationally.

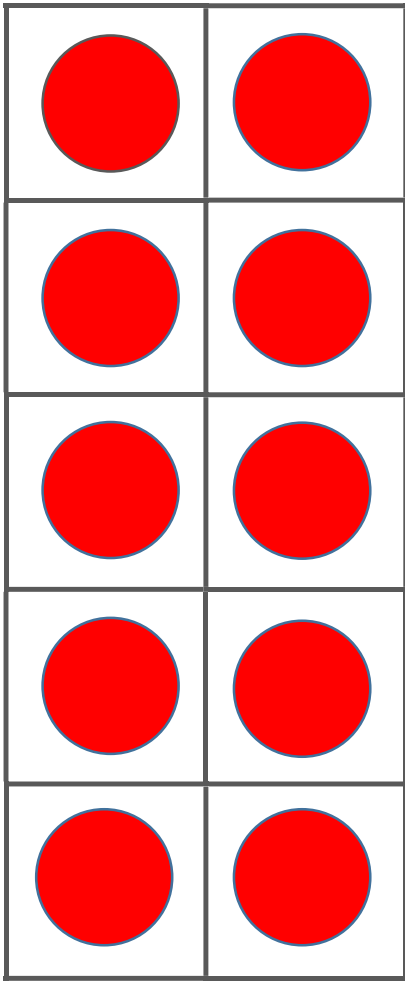
8 is made of 5 and 3. It is also 2 less than 10.

Play 'Ways to make 10'

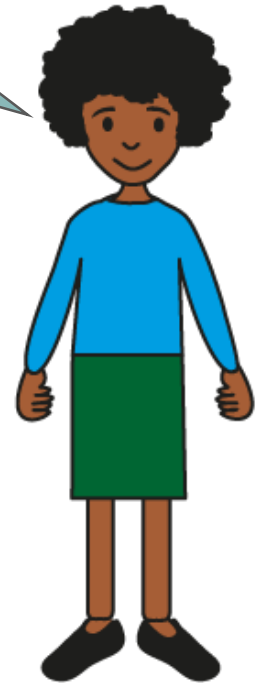
You will need your 10 frame and 10 counters.



It is important that children are aware of all of the numbers that are parts of 10.

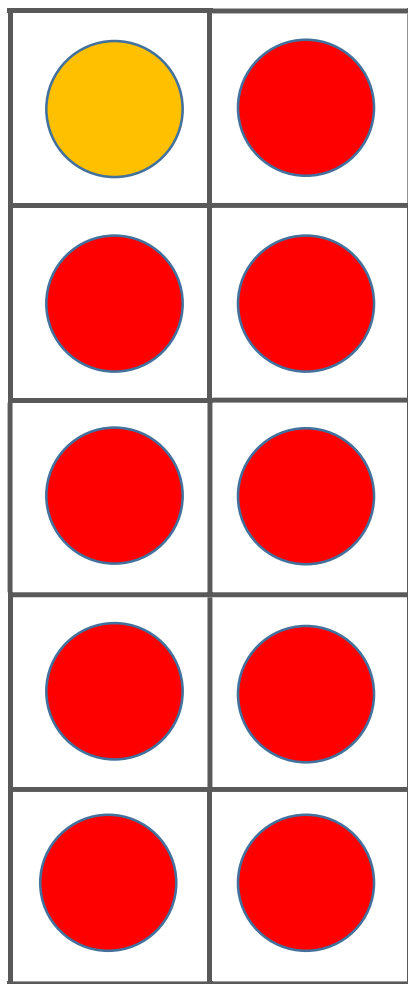


Start at the bottom and place two
at a time.



Children: Place the counters on the 10-frame so they are all red.

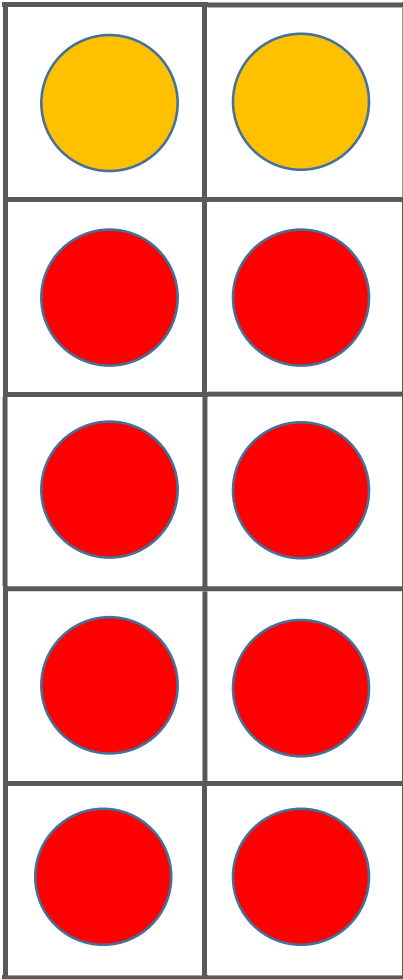
Grown-ups: turn one counter over at a time.



Say the stem
sentence together.

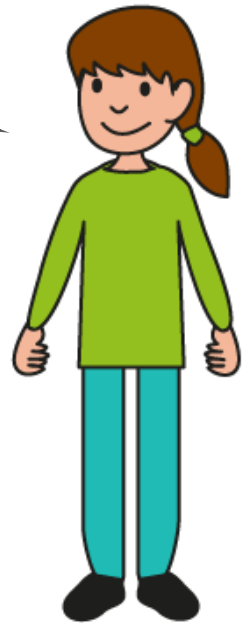


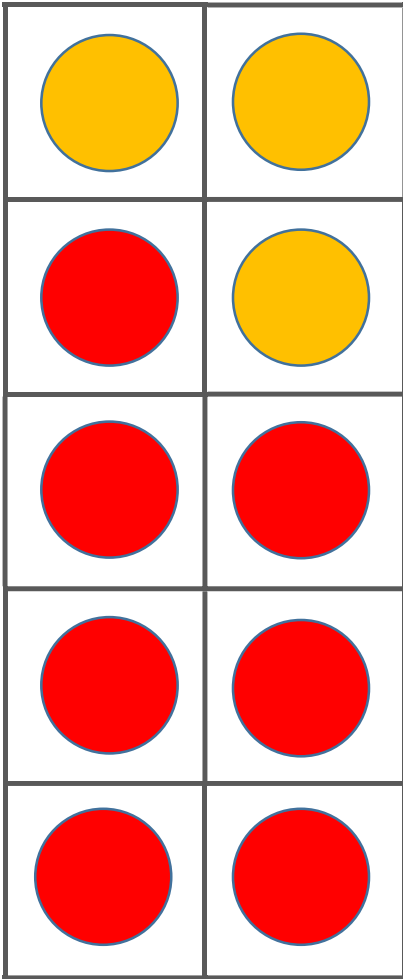
10 is made of ____ and ____.
____ and ____ make 10.



Keep saying the stem sentence together.

10 is made of ____ and ____.
____ and ____ make 10.

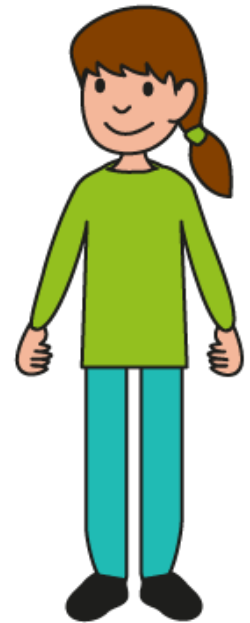




Continue doing this
until all the counters
are yellow.

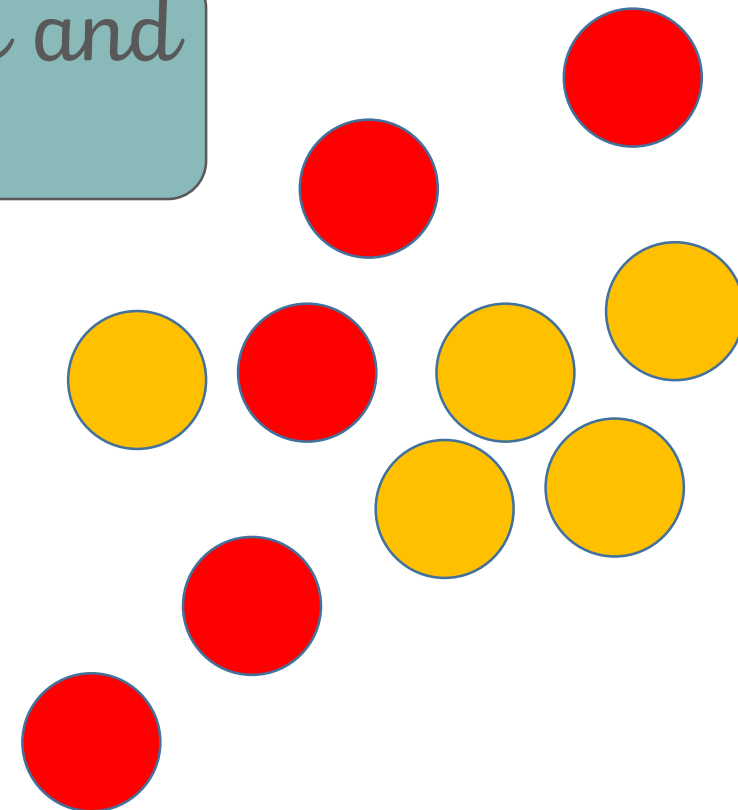
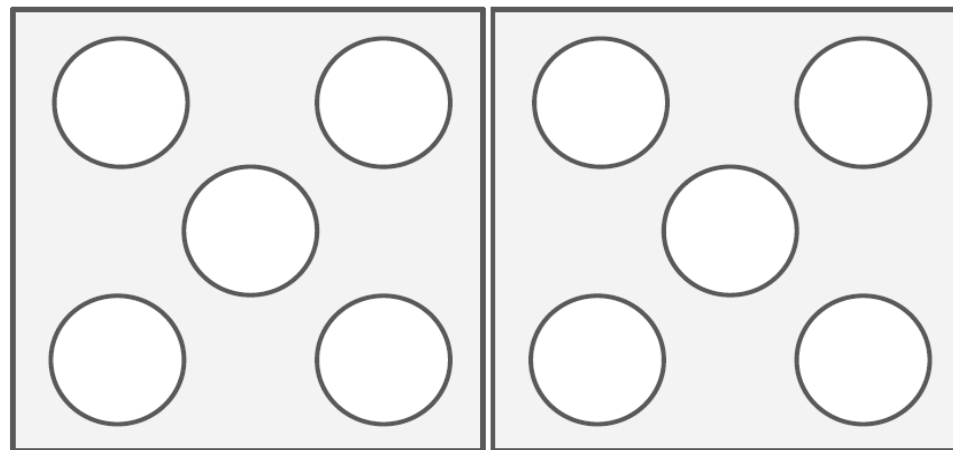
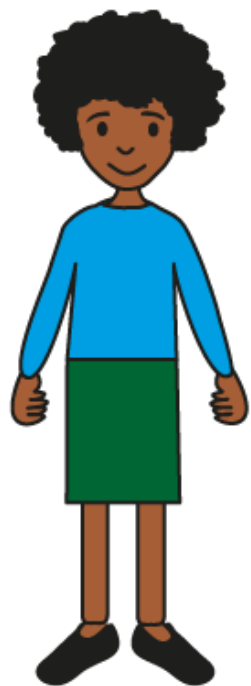
10 is made of ____ and ____.
____ and ____ make 10.

Working in a systematic way like this helps children to see
the relationship between the numbers and to explore all
the possible ways to make 10.



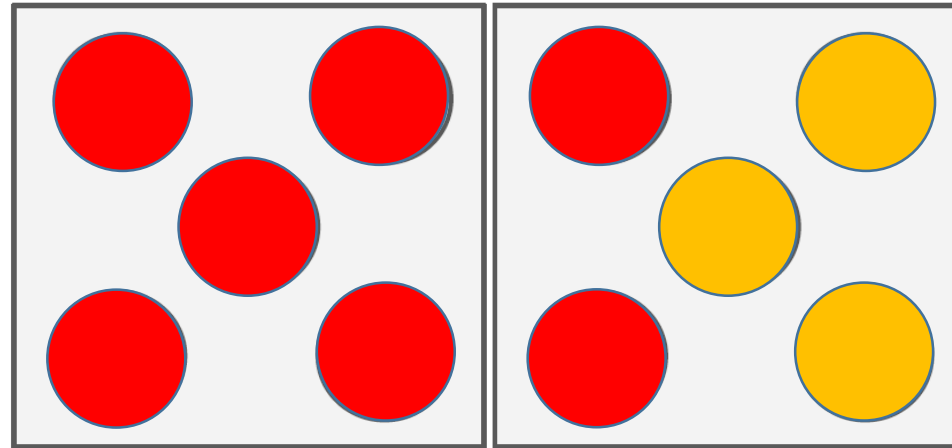
Play 'How many more to make 10?'

Now you will need your dice frame and 10 counters.



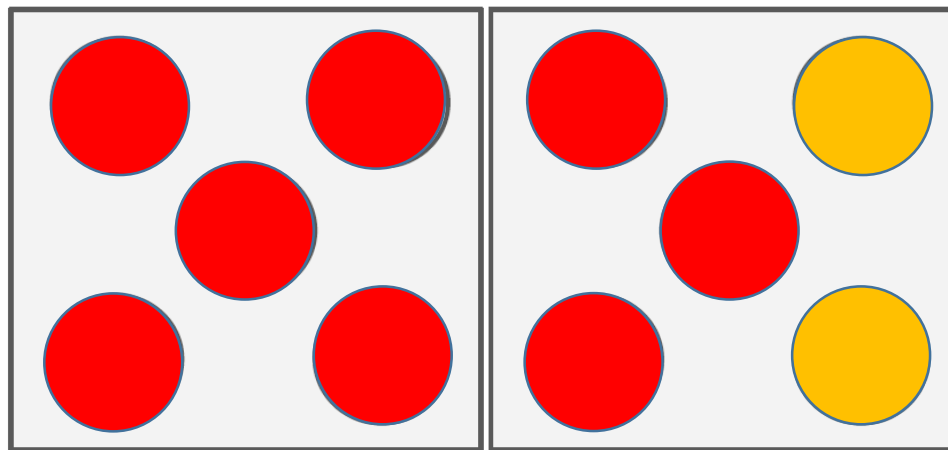
Grown-ups: Place 7 red counters onto the dice frame, using the '5 and a bit' pattern.

Children: Fill the spaces with yellow counters and use the stem sentence.



10 is made of _____ and _____.
_____ and _____ make 10.

Grown-ups: Repeat using a different '5 and a bit' number (e.g. 6, 8 or 9).

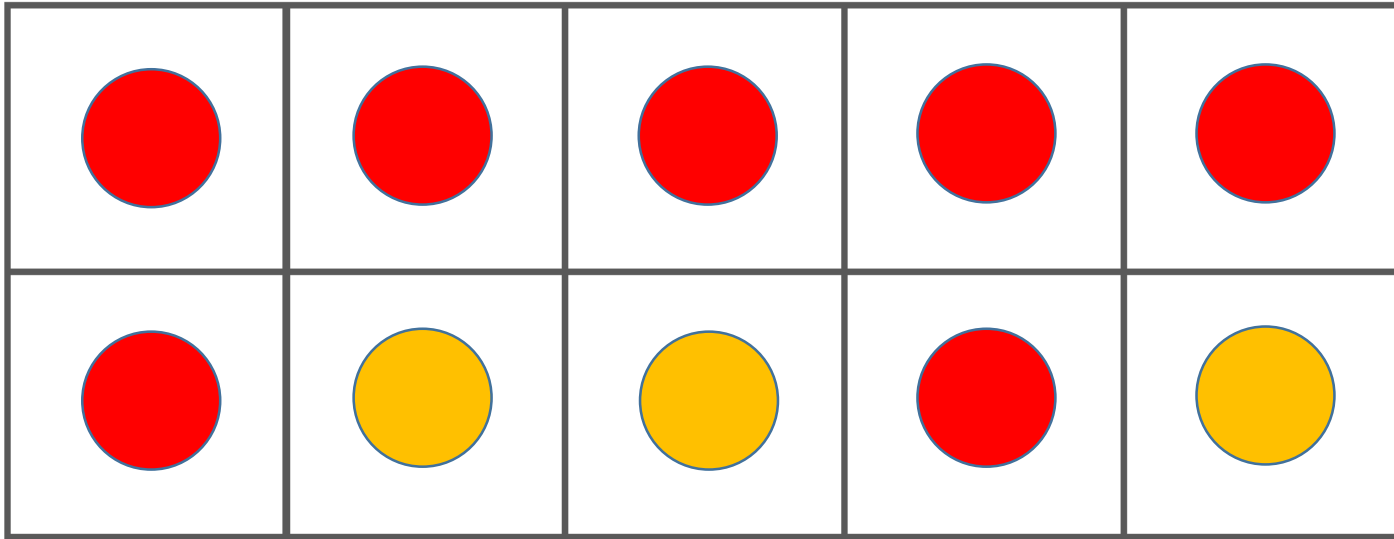
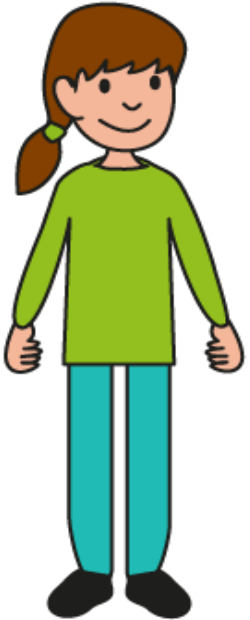


10 is made of _____ and _____.
_____ and _____ make 10.

In Week 3, children will be asked to say how many are needed to make 10 without filling the spaces.

In Week 3, parents could make this harder by making the arrangements less obvious, e.g. so there are empty spaces on both sides of the dice frame.

You could play the same game using the 10-frame – this might be more tricky!



We are still using the 5 and a bit strategy, so the top row should always be 5 reds.

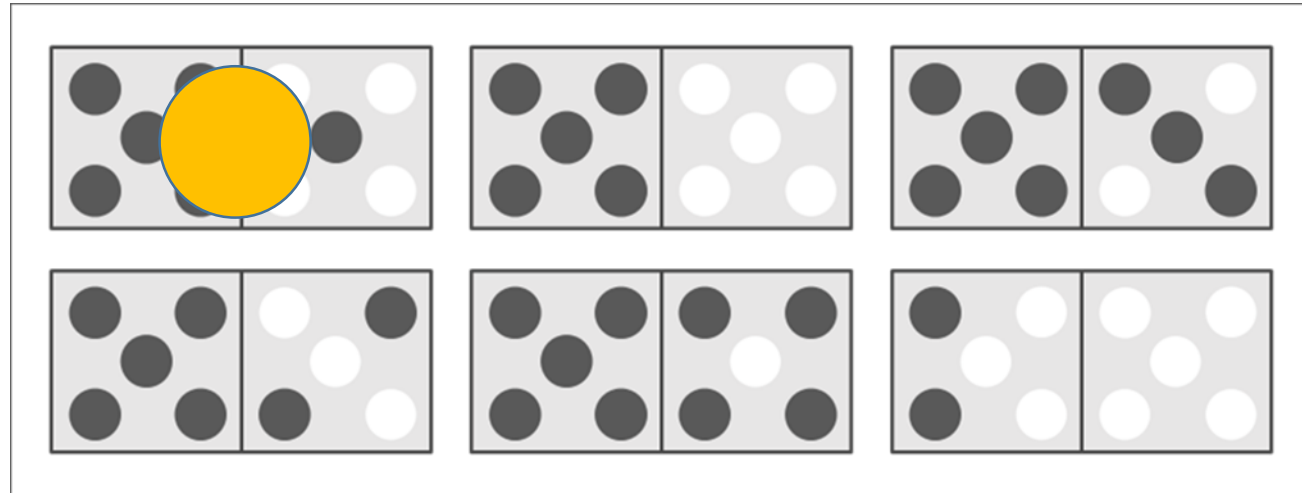
10 is made of _____ and _____.
_____ and _____ make 10.

Introducing 'Make it 10 Bingo'

Player 1: pick a caller card and read it out

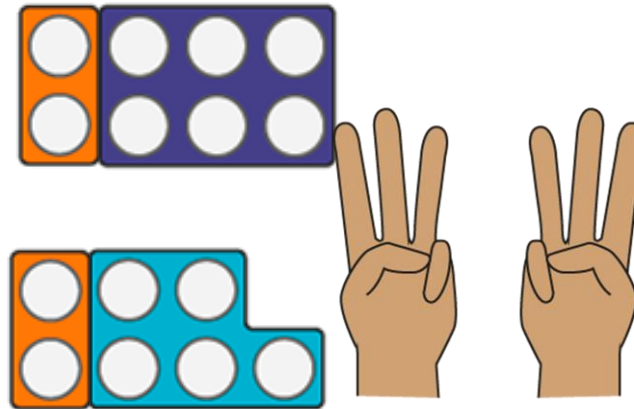
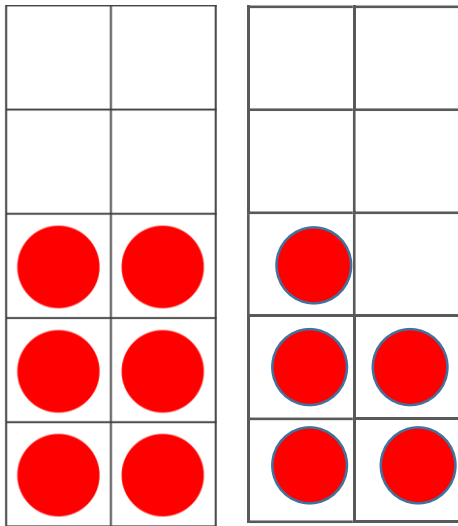
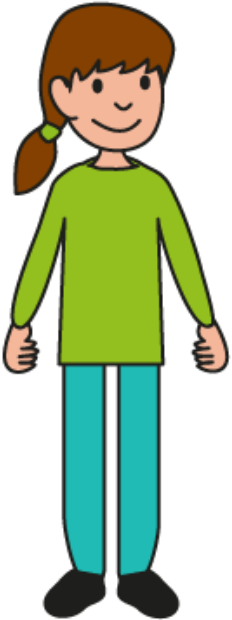
Player 2: find the number that makes 10 and cover it with a counter.

What does 4 need to
make 10?



Odd and even numbers 'inside' other numbers

Let's think about the odd and even parts of numbers.



We want children to understand that even numbers can be made of 2s, and can be made with 2 equal parts, i.e. doubles.

Grown-ups can help children to recognise that even numbers can be composed from 2 odd parts or 2 even parts.

Use your objects to show the numbers on the 10-frames.
Place them in the order shown.

What do you notice about the pattern?

The number above each 10-frame shows you how many objects you need to place on that 10-frame.

Give your child a number between 1 and 10. Ask them to place objects, 2 at a time, into the columns of that number's 10-frame.

For example, let's start with number 4. Your child should gather four objects and place them in row of two starting at the bottom.

1

2

3

4

5

6

7

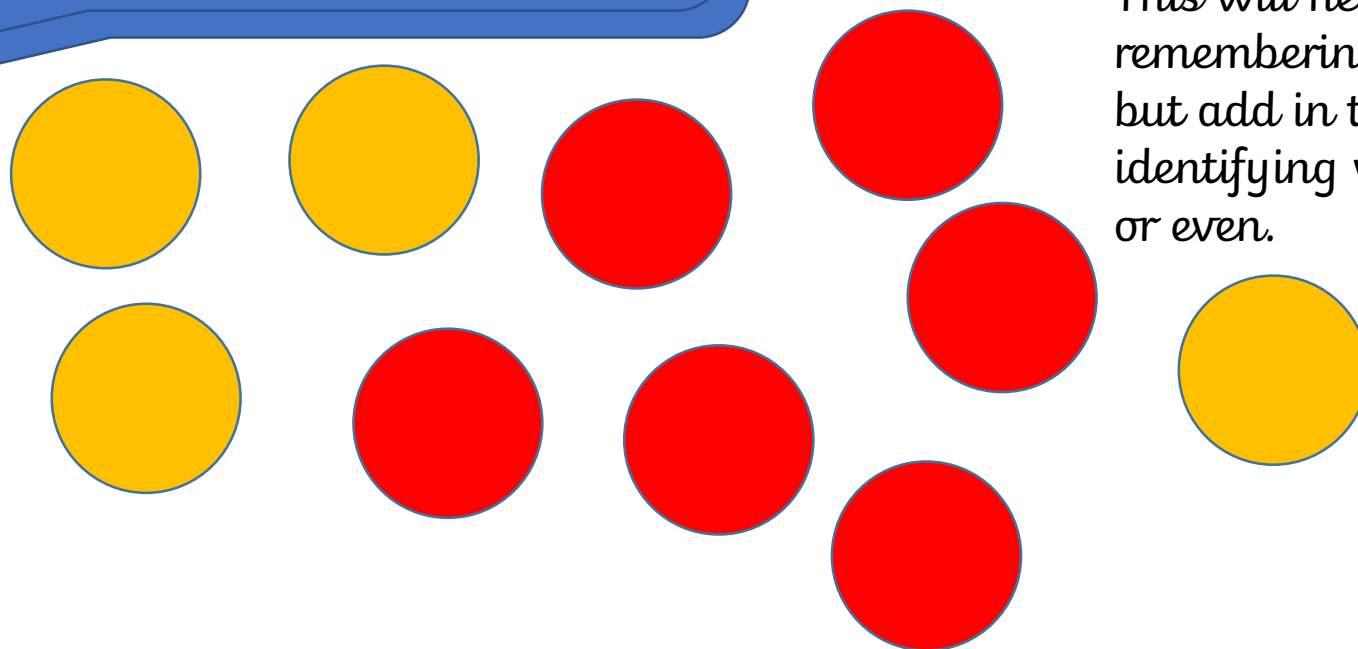
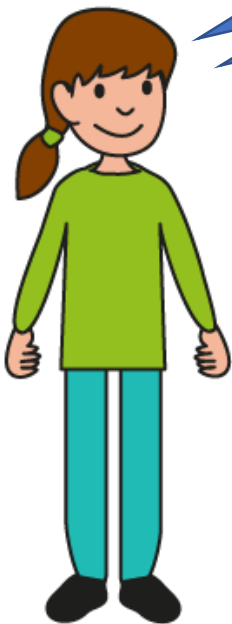
8

9

10

Play 'Drop 10 counters'

How many of each colour? Are the parts odd or even?



Try to subitise – but it might be tricky depending how they land! Maybe one part can be subitised, and children can try and remember the other parts – they may need to check by counting!

This will help children practise remembering the ways to make 10, but add in the challenge of identifying whether the parts are odd or even.

Play 'Ways of making 7 and 8'

$$6 + 1$$

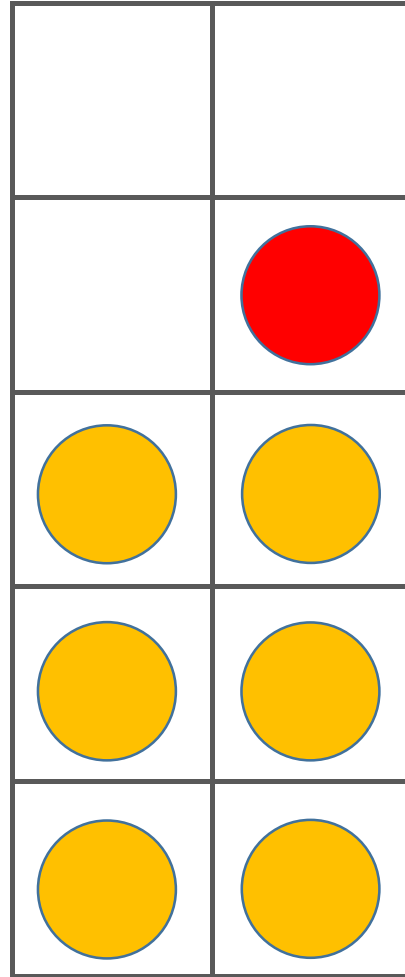
$$5 + 2$$

$$4 + 3$$

$$3 + 4$$

$$2 + 5$$

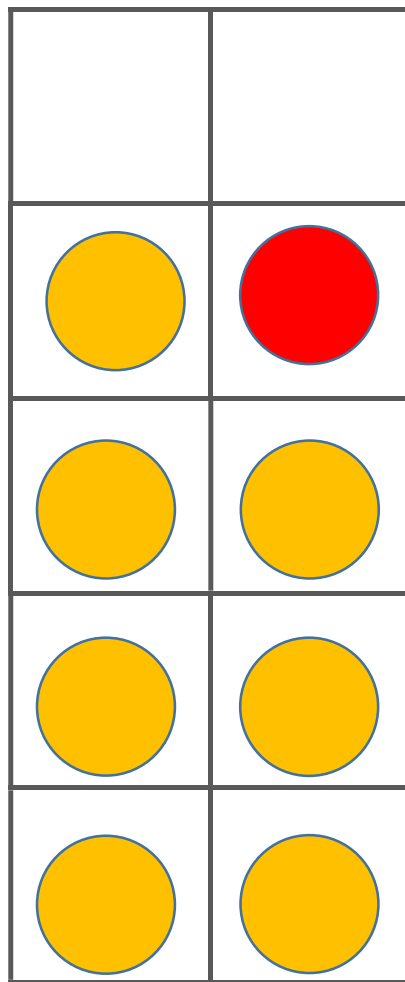
$$1 + 6$$



Can you see if 7 can be made of odd or *even* parts?



$$7 + 1$$



Can you see if 8 can be made of odd or *even* parts?

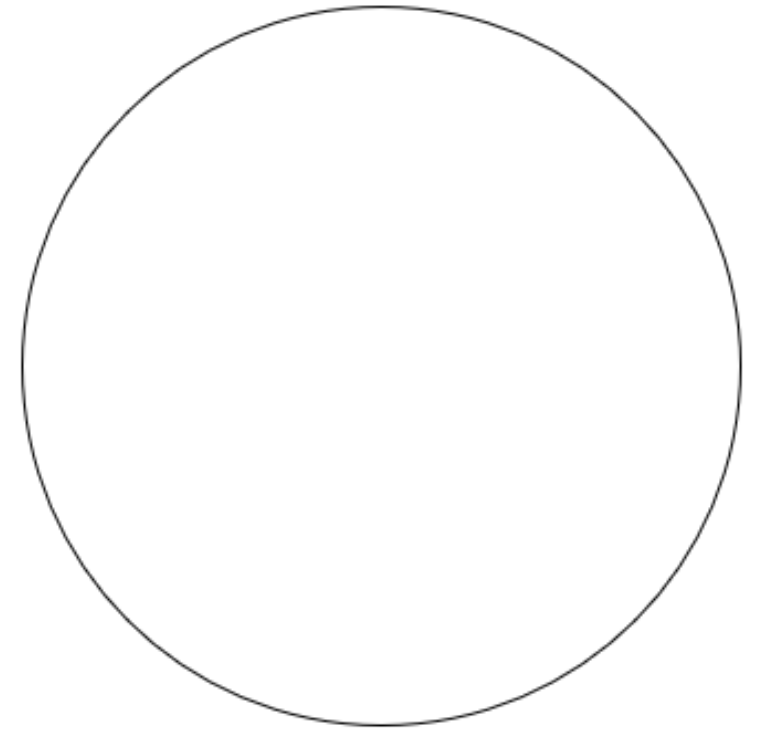
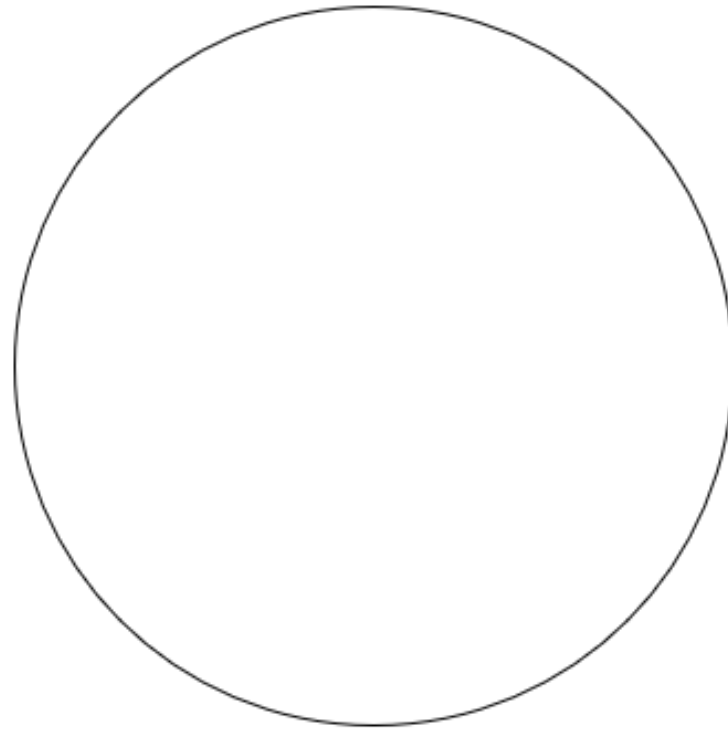
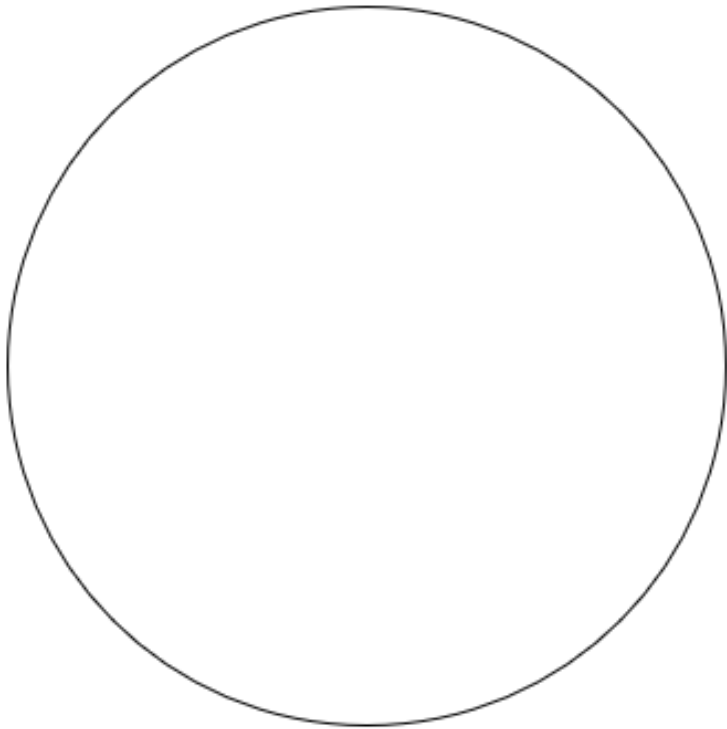


Introducing 'Sorting expressions'

odd + odd

odd + even

even + even



Week 5

In Week 5, they are to replicate this activity and then cut out and sort the expressions as to whether the parts of the target number are odd and odd, odd and even, or even and even.

Home Learning

After half-term, you are going to take all the games we played today home with you to practise.

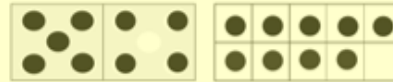
The home learning will be set out on a sheet with instructions. You will receive a new sheet and some new activities each week.

We anticipate each day that you will do ten minutes of activity. Sometimes it may not take 10 minutes which is fine – maybe you could try some of the additional activities on those days.

Mastering Number at Home

Year 2 – Week 1

Copy my number

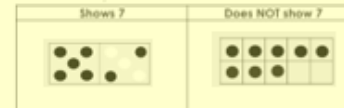


(Monday, Wednesday and Friday)

How to play

- For this game you will need the worksheet 'Double dice frame and 10-frame' and 20 counters.
- Place some counters on the double dice frame to make a number larger than 5 (note that you should fill the left-hand side of the frame before adding counters to the right-hand side).
- Ask your child to make the same number on the 10-frame, ensuring they start with 5 counters on the top row each time.
- Repeat this activity several times. [If your child finds this easy, you may wish to cover the double dice frame with a cloth and reveal the number of counters only briefly.]

7 or NOT 7?



(Tuesday and Thursday)

How to play

- For this game you will need the worksheets '5-and-a-bit cards' and 'Sorting table'.
- Place the cards face-down on a flat surface.
- Take it in turns to pick up 1 card.
- If the arrangement on the card shows 7, place it in the 'Shows 7' column of the sorting table. If it does not, place it in the 'Does NOT show 7' column.
- Ask your child to tell you how they know if the card is in the correct column. For example, "7 is made of 5 and 2 and this is 5 and 3".

Other things to try at home

Match my fingers

For this game you will need the cards you cut from the worksheet '5-and-a-bit cards'. Spread out the cards face-up on a flat surface.

Use the fingers of both hands to show your child a number that is more than 5. Make sure you show 5 fingers on one hand and the remaining fingers on the other hand.



Ask your child to find ALL the cards that show the number represented by your fingers.



Mastering Number at Home

My Diary – Year 2 Week 1.

Please complete your diary with your grown-up every day.

Name:

Day	Activities completed (please tick)	✓	Grown-ups – comment about your child's learning
Mon	We played 'Copy my number.'	✓	Joe was able to copy all the numbers I showed.
Tues	We played, 'Shows7/ does NOT show 7.'		
Wed	We played 'Copy my number.'		
Thurs	We played, 'Shows7/ does NOT show 7.'		
Fri	We played 'Copy my number.'		

Grown-ups – please indicate how you and your child found the work this week.

Very confident



It was okay



Not too sure



Thank you