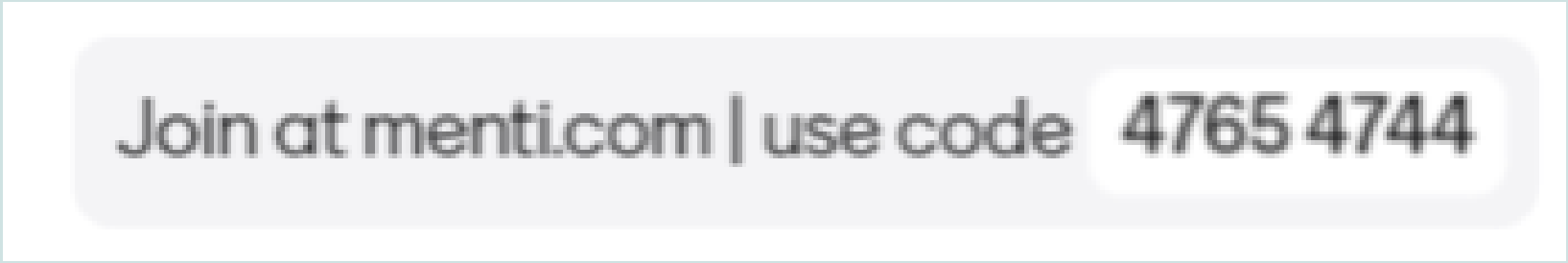
ST. AUGUSTINE'S
CATHOLIC PRIMARY SCHOOL

We would like to hear from you!

https://www.menti.com/alr8knwfm2dn



"Parental attitudes and confidence in math can significantly influence a child's mathematical development. When parents convey positive attitudes towards math and display confidence in their own math abilities, children are more likely to approach math with enthusiasm and develop a growth mindset towards learning."

- Jo Boaler

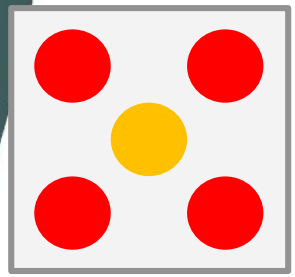
A large majority of parents of elementary-aged children are left feeling unable to help their children in math or are inadvertently passing on their own math anxieties to their children.

—*Partnering With Parents in Elementary School Math*

CORWIN

Mastering Number at Home

Reception, Year 1 & Year 2



NCETM

NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Aims of the session

- To share with you some of the things your child will be learning in school
- To improve your confidence in helping your child with maths
- To launch the 5 week homework project

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Why work with your child?

The help that parents give their children at home has a very significant impact on their learning.

Development Matters (2023)

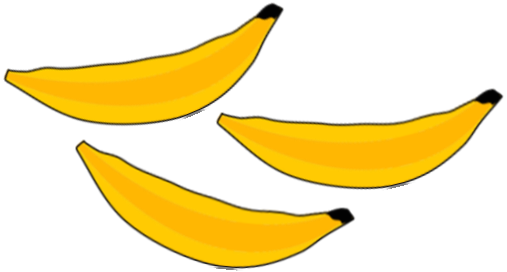
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

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

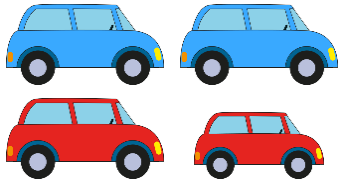
The Mastering Number Programme in Reception will help your child to develop good *number sense*.

Some of the things they are learning include:

Counting



Recognising small numbers of objects and making their own collections



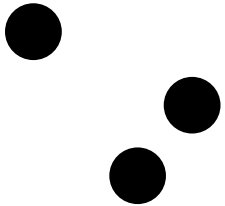
Know different ways to ‘make’ (compose) a number

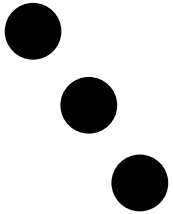
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

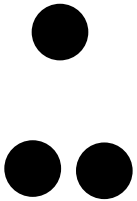
Subitising

Subitising is the ability to recognise a *small quantity* of objects *without the need to count*.

Sometimes when we subitise we can see two groups at once; if we know that 3 can be ‘made’ of 2 and 1, then we know how many there are altogether without counting.







NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

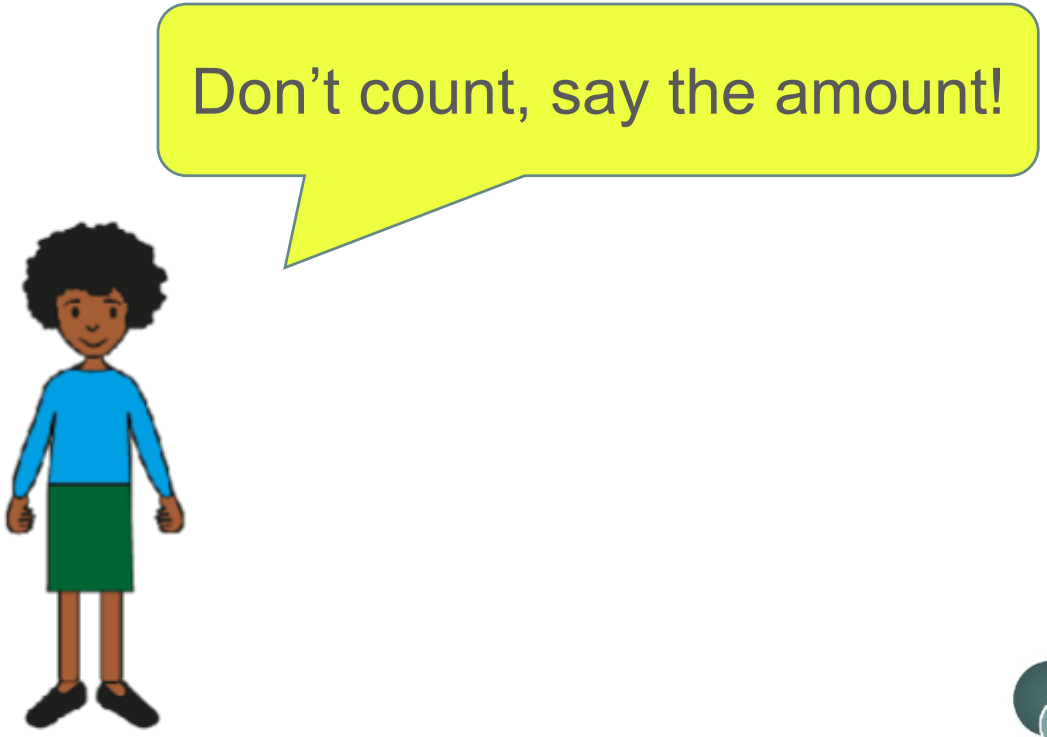
How will knowing how numbers are ‘made’ help?

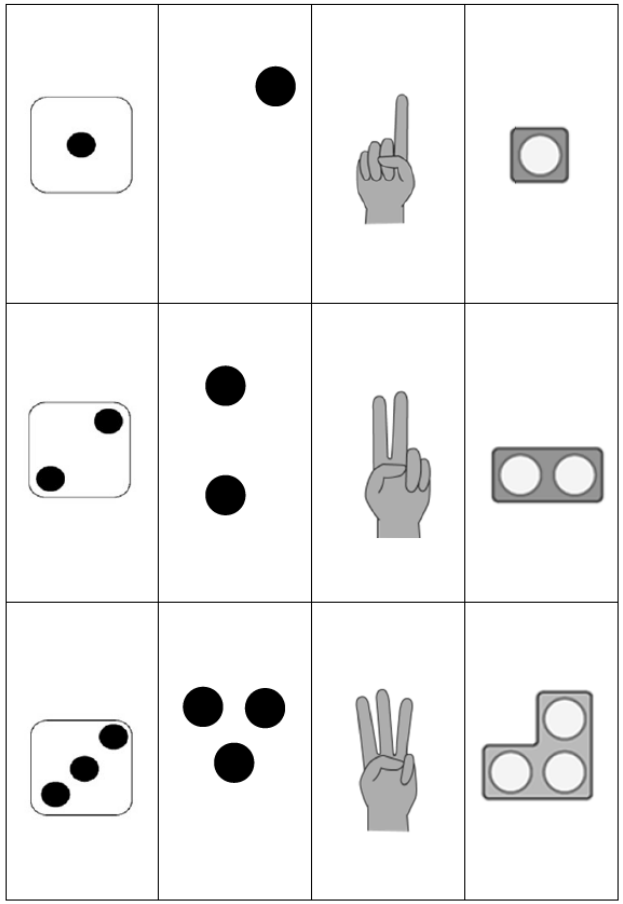
If children know that **4 can be made of 3 and 1,** they can apply this knowledge later on to see that:

30 and 10 is 40
300 and 100 is 400
and that;
400 take away 100 is 300

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play ‘Subitising to 3 snap’





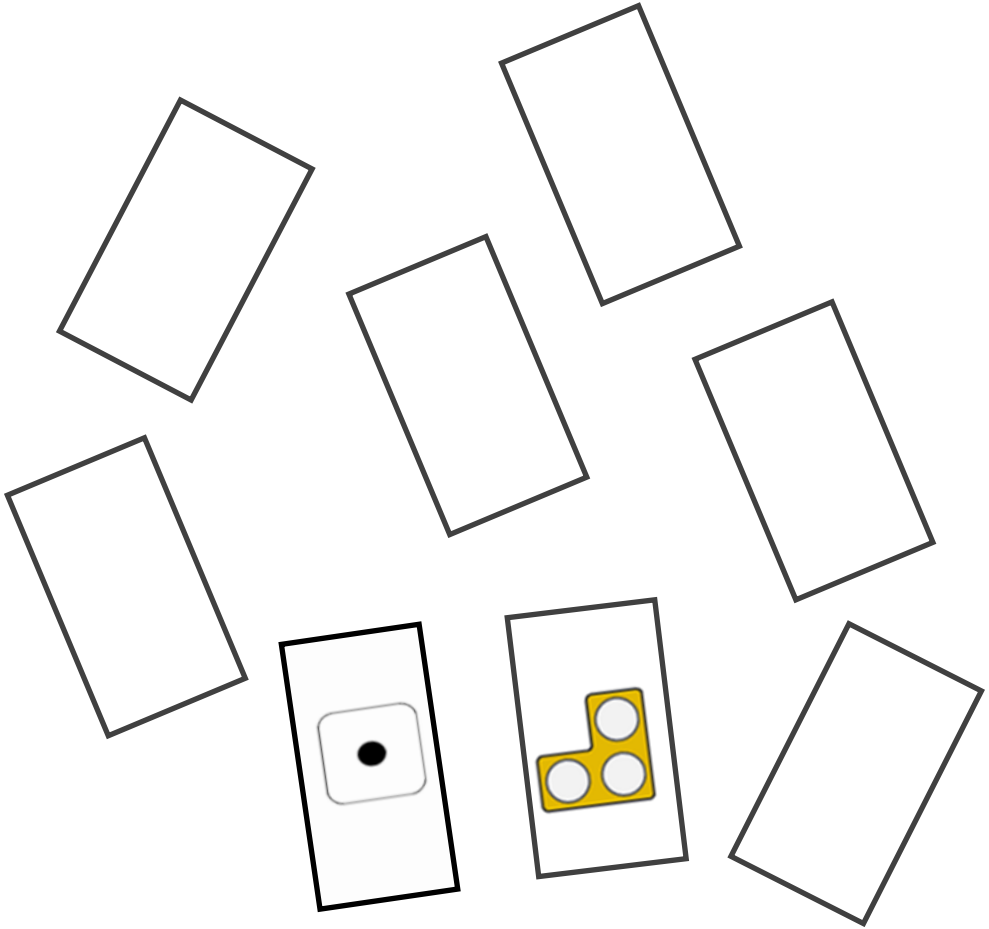
Grown-ups:

Please cut these into 12 separate cards and hand them to your child.

Children:

Please spread the cards out and place them ***face-down*** in front of you. (Ask the grown-up for help if unsure).

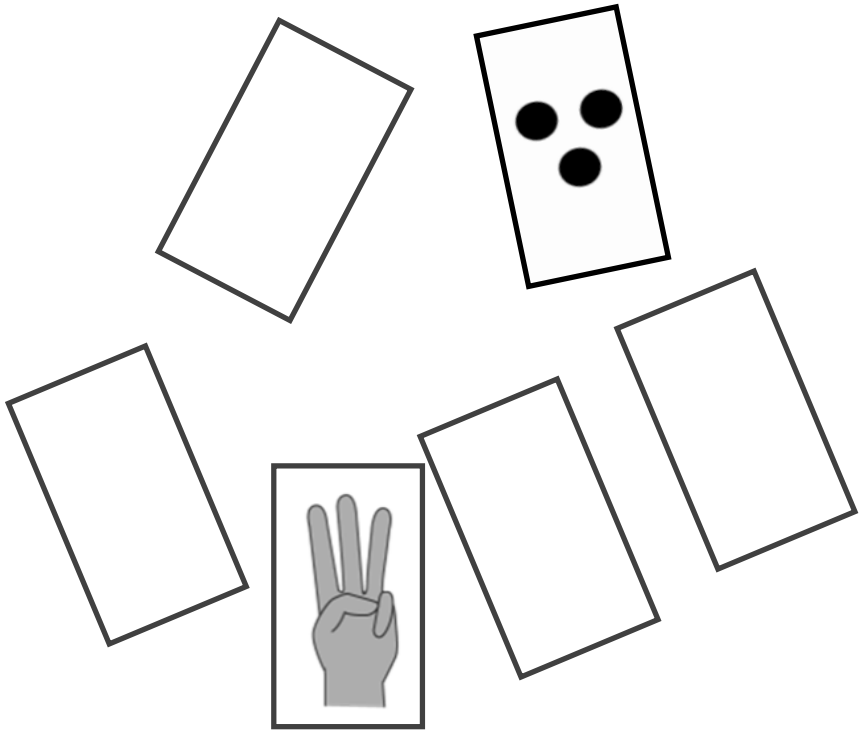
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



Take turns to turn two cards over and say the number you can see.

If the numbers do not match, place them back and try to remember where they are in case you need them later.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



When it is your turn, if you turn over two cards that are the same, you can keep them.

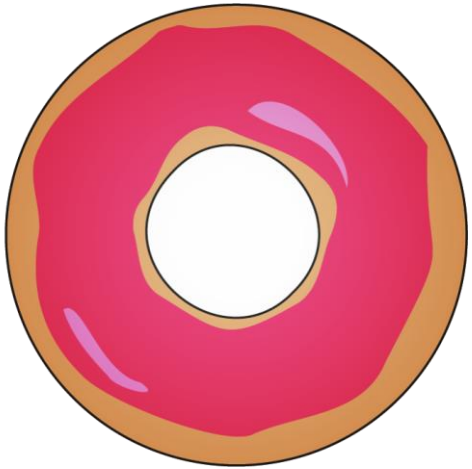
The winner is the person with the most cards when they are all used up.

In Weeks 3 and 5, you will receive extra cards to practise subitising with bigger numbers. Don't throw your cards away!

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

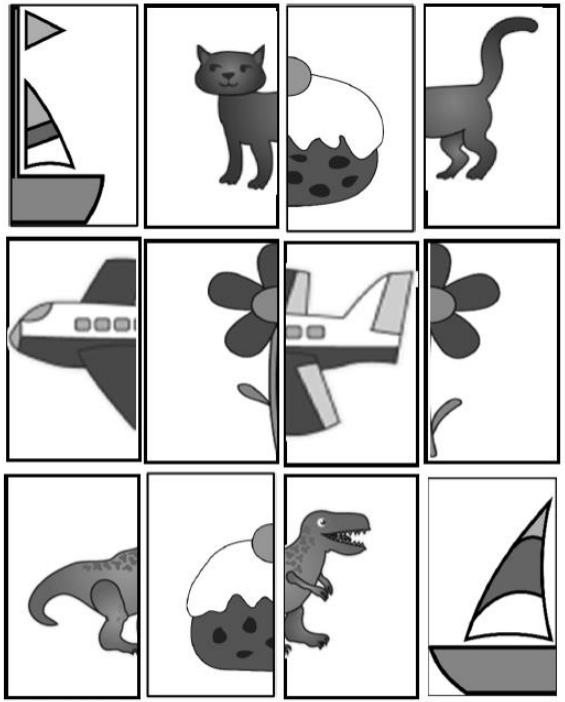
Play ‘Part-part-whole’

The ‘hole’ in the donut?



A ‘whole’ donut?

Find 2 **parts** that make a **whole**.



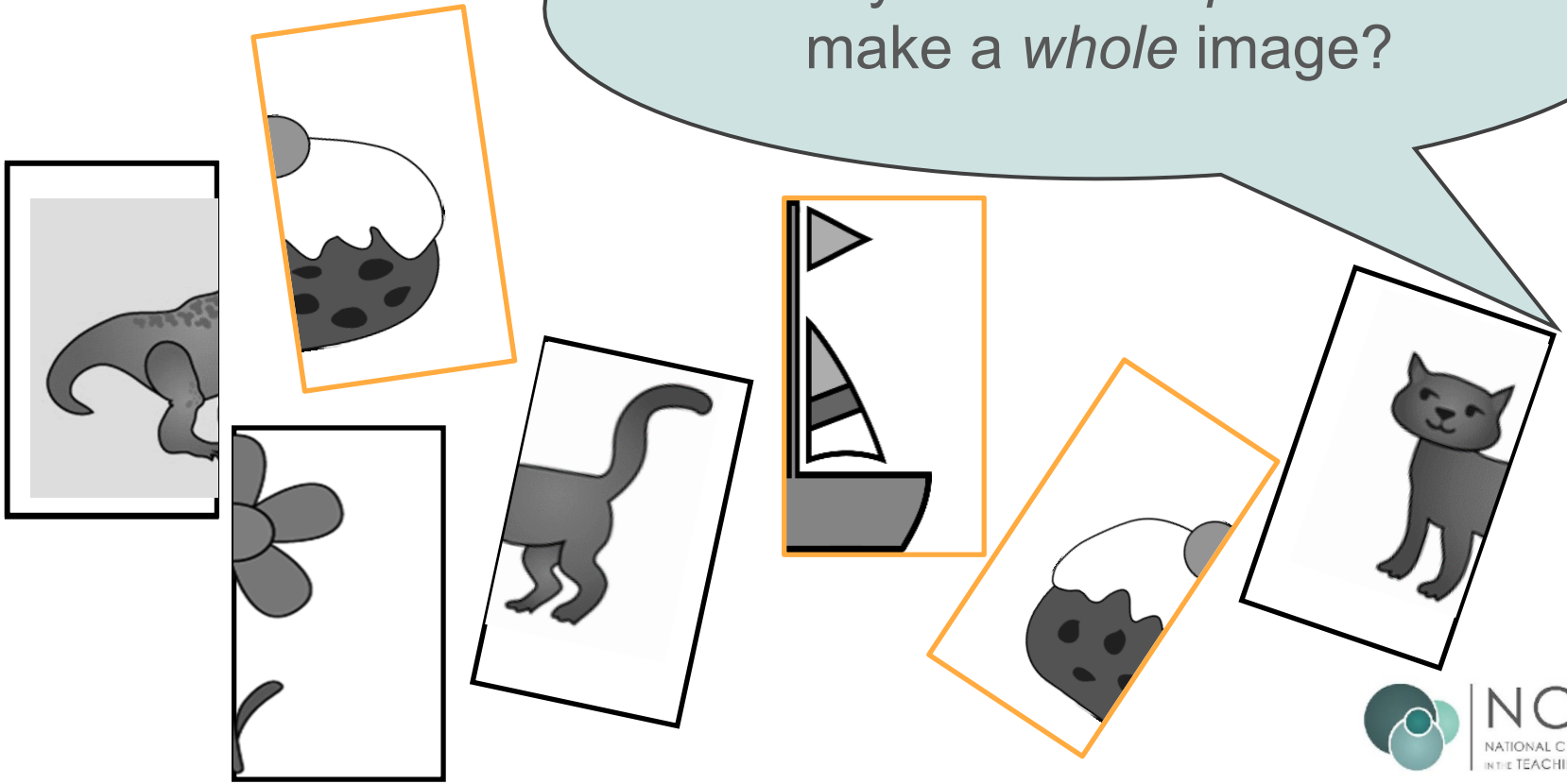
Cut carefully around each of the images.
Lay the cut cards face-up on a flat surface in front of you.
Take it in turns with the grown-up.
Look for two images that look like they are part of a whole.
Pick them up and say 'part' 'part'.
Put them together and say 'whole.'

Grown-ups will need to carefully cut out these cards.

Children: place the cards ***face-up*** so you can see the pictures and spread the cards out in front of you.

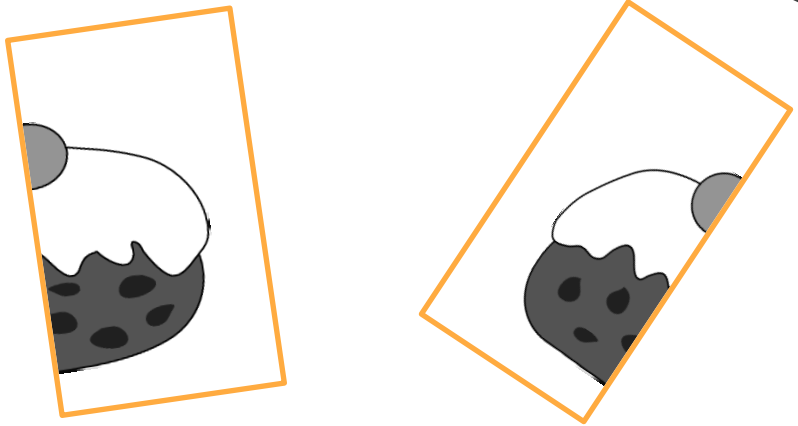
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Can you see two *parts* that make a *whole* image?



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

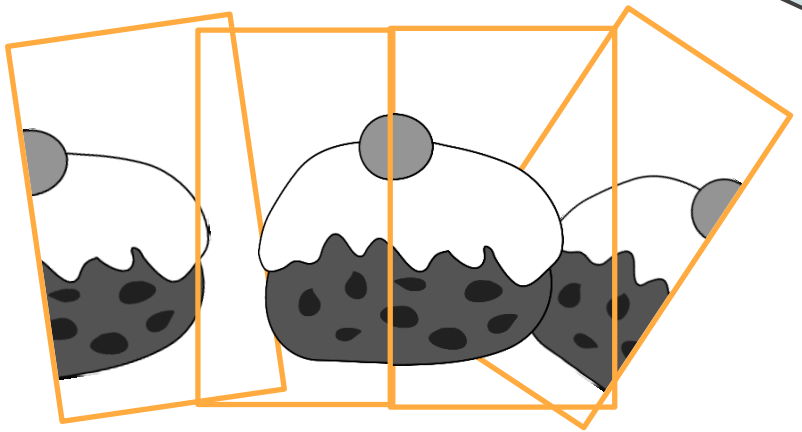
Pick up each piece and say:
‘part… part…’



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

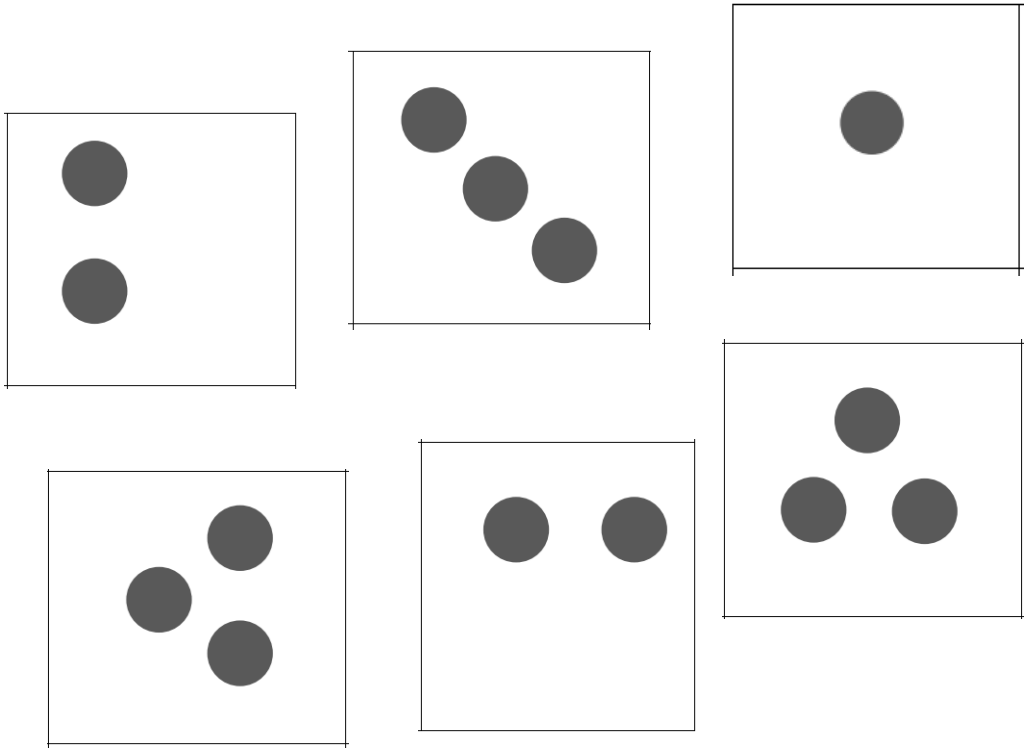
Now put them together and say: ‘whole!’

Can you find all the ‘wholes’ by doing the same?



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Part-part-whole with dots



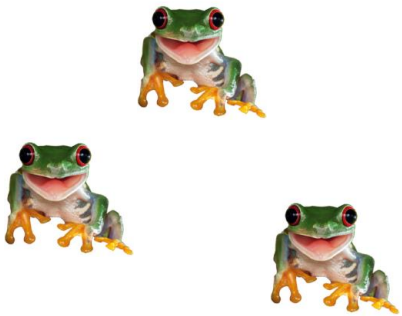
In Week 3, you will play ‘part-part-whole’ with dots.

One person will pick up a card, and the other person must pick up the card that will ‘make 4’.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

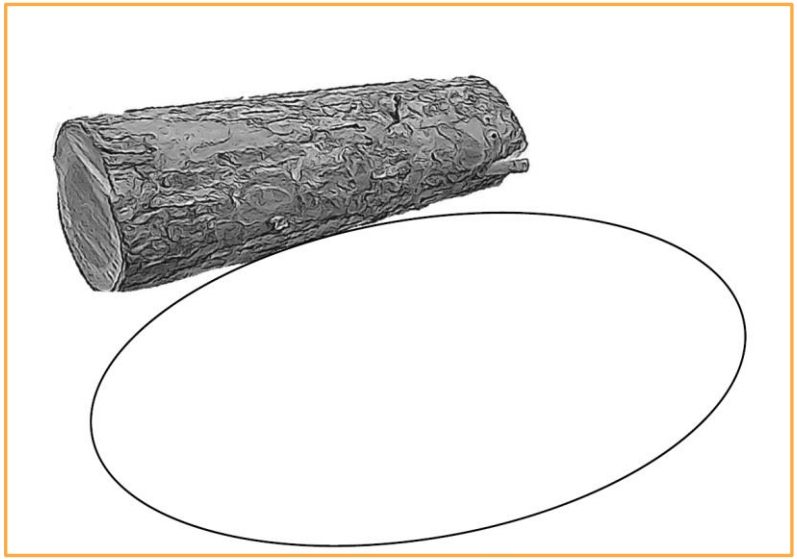
Play ‘3 frogs on a log’

You will need...



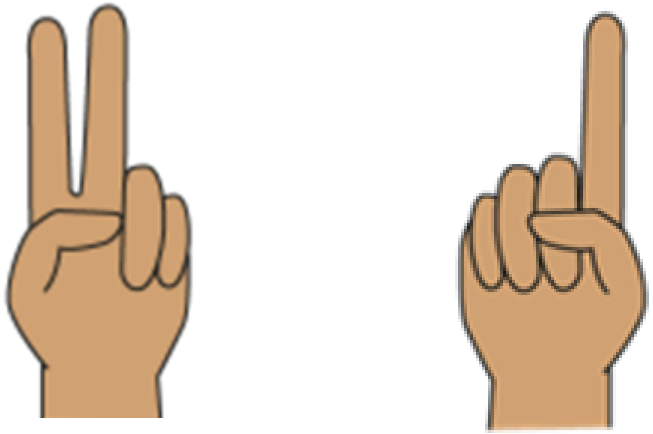
3 frogs
(counters)

The frogs on a log sheet

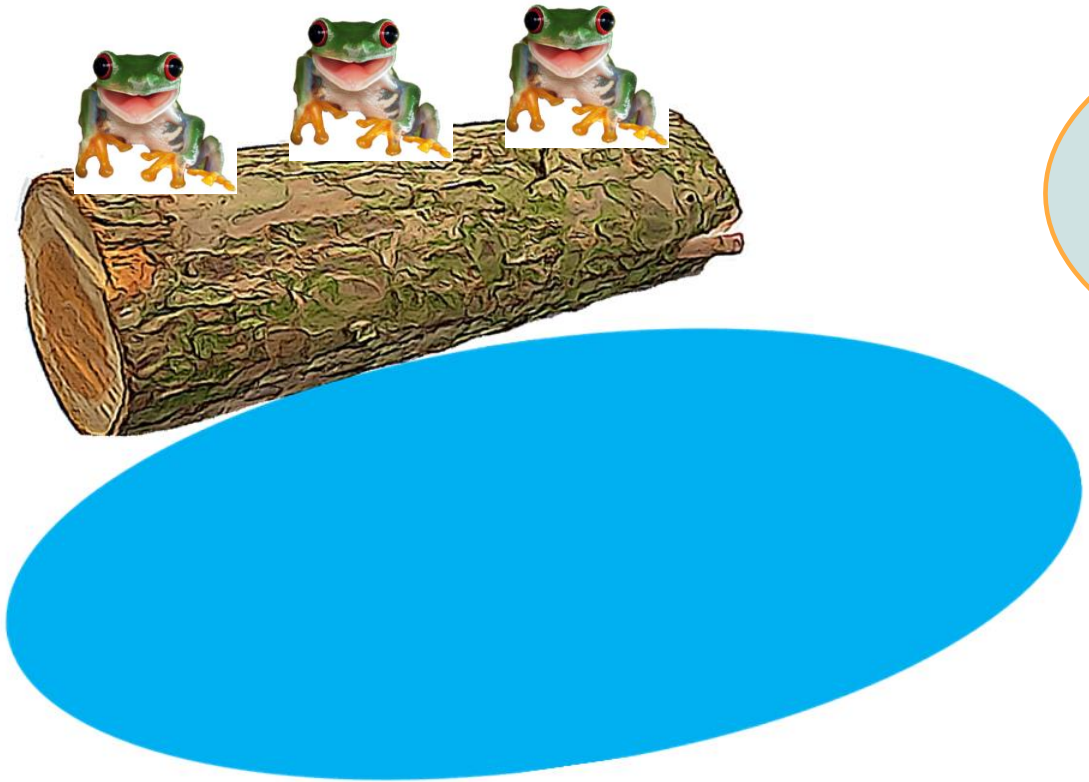


NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

You will also need to show the numbers on your fingers!



Put 3 frogs on the log

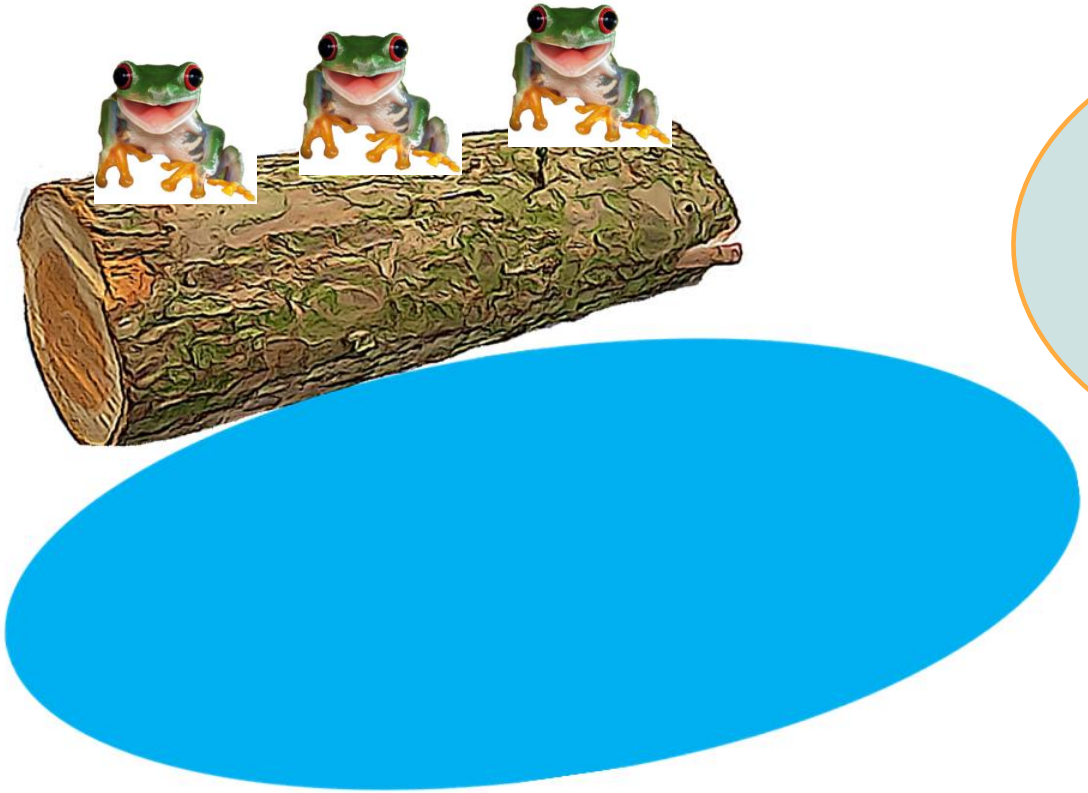


Ask your child

Show with your fingers:
How many are on the log?
How many in the pool?
How many altogether?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Put 1 frog in the pool.

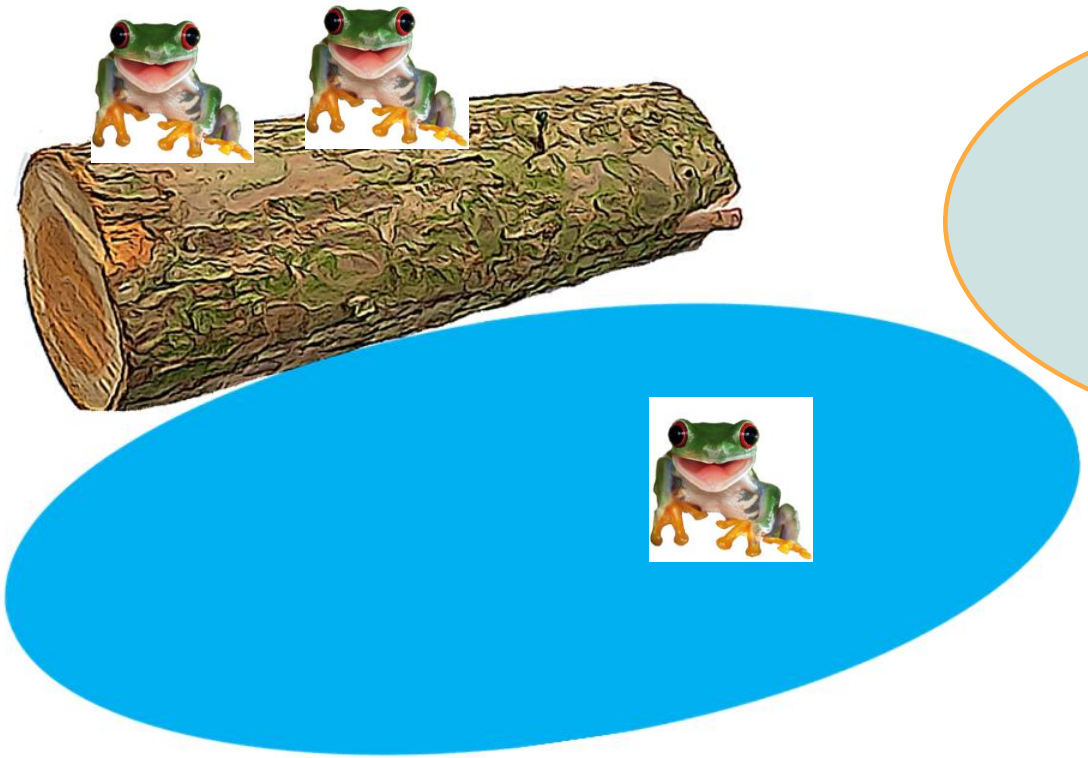


Ask your child

Is it still three?
Show with your fingers:
How many are on the log?
How many in the pool?
How many altogether?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Put another frog in the pool.

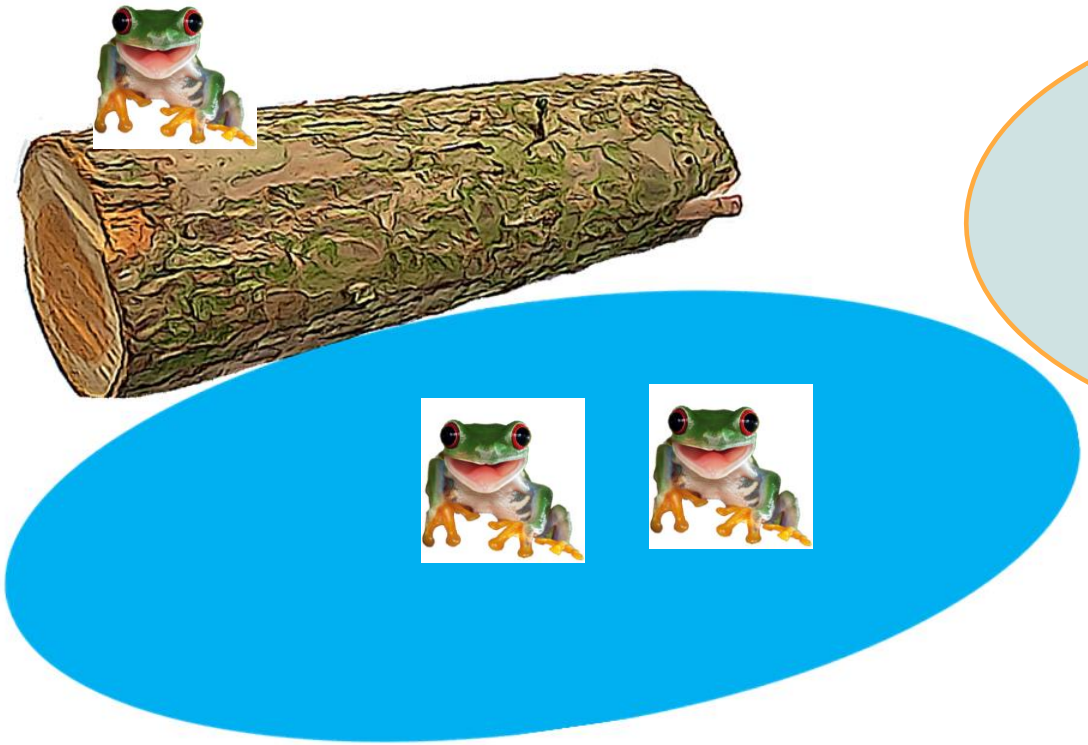


Ask your child

Is it still three?
Show with your fingers:
How many are on the log?
How many in the pool?
How many altogether?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

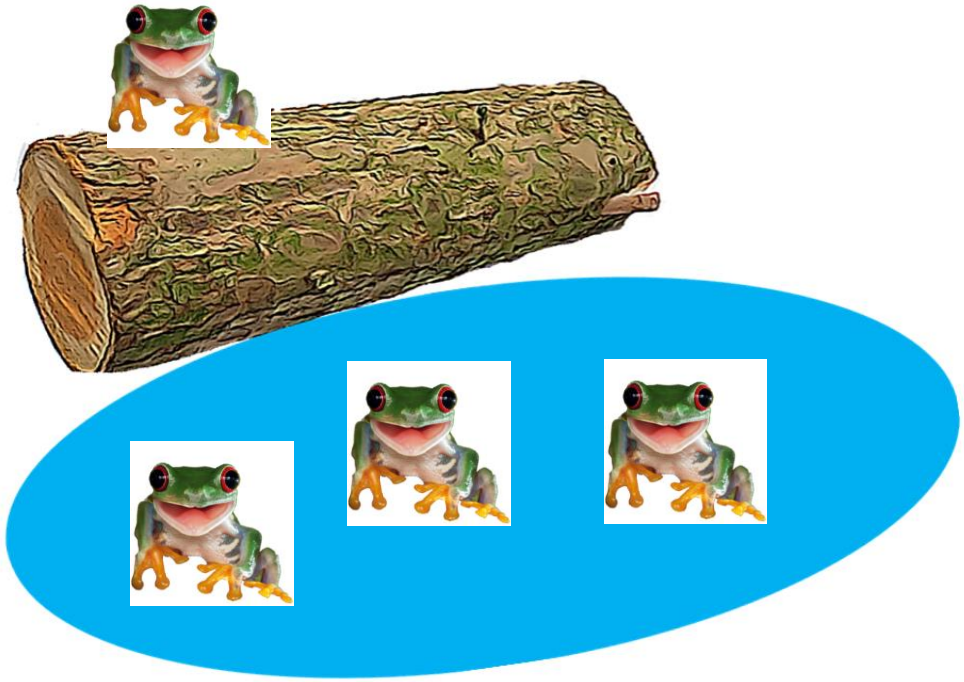
Put another frog in the pool.



Ask your child

Is it still three?
Show with your fingers:
How many are on the log?
How many in the pool?
How many altogether?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



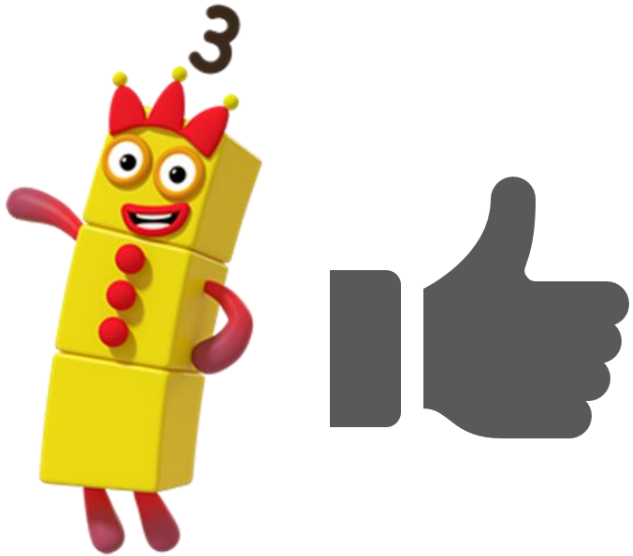
In Week 4, you will play this game again with 4 frogs… or even 5!

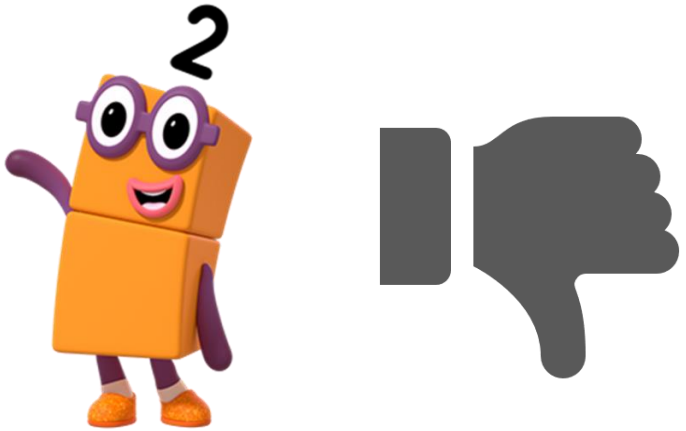
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

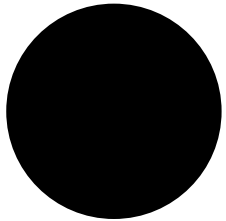
Play ‘3 or NOT 3?’

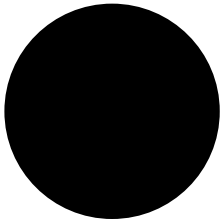
This activity involves spotting when there are 3 of an object or explaining why there are NOT 3.

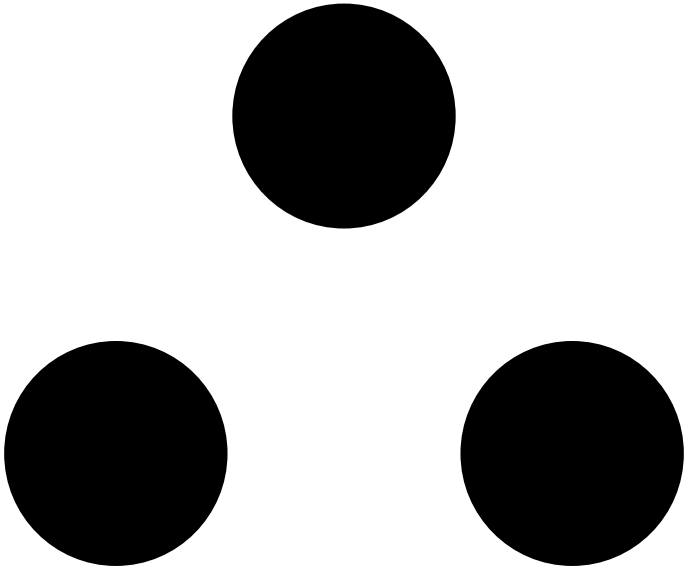
Put your thumb UP if you can see 3, and down if it is NOT 3.





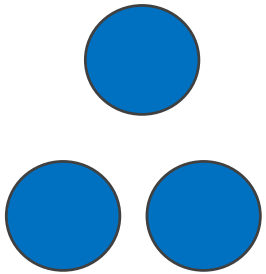


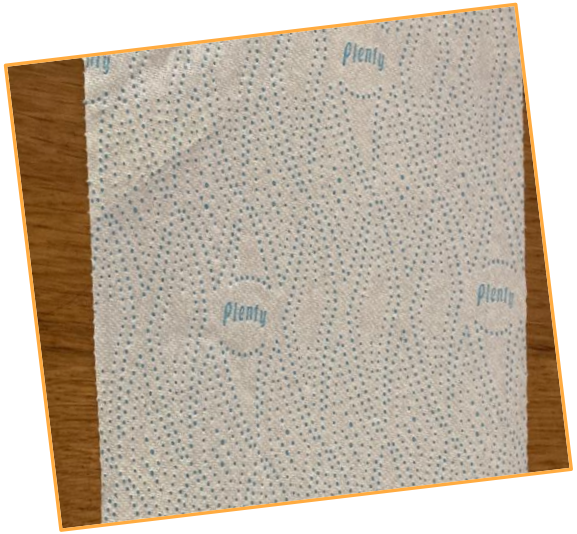




Play ‘3 or NOT 3?’ with counters

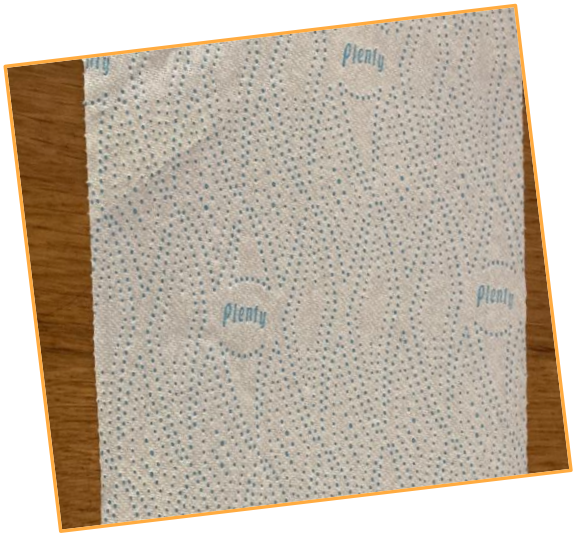
You will need 5 counters and something to cover them.





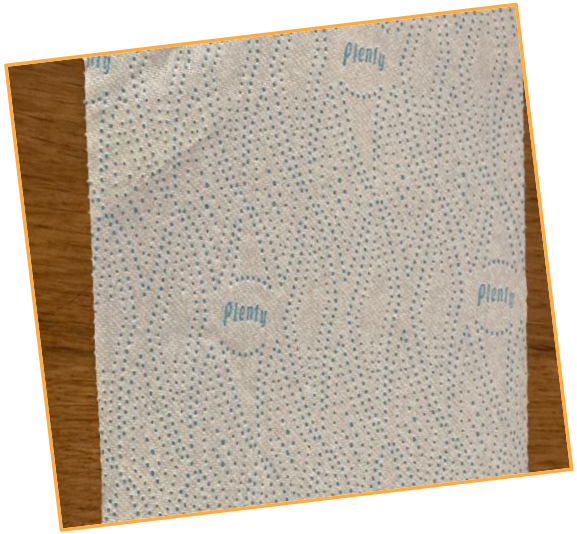
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Grown-ups, hide some counters under the towel.



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

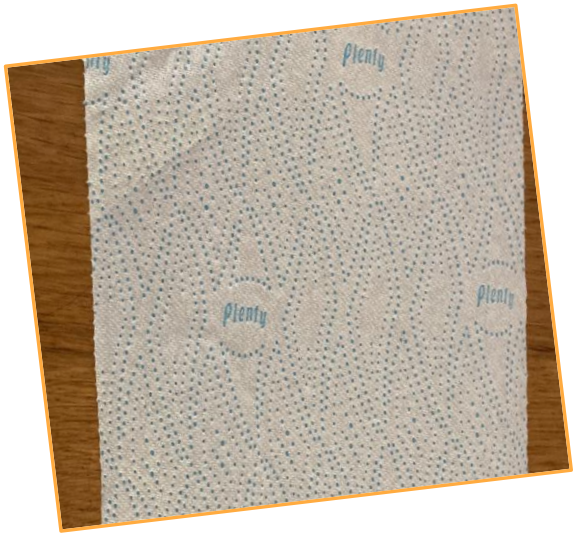
Reveal them quickly and ask your child…



3 or not 3?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

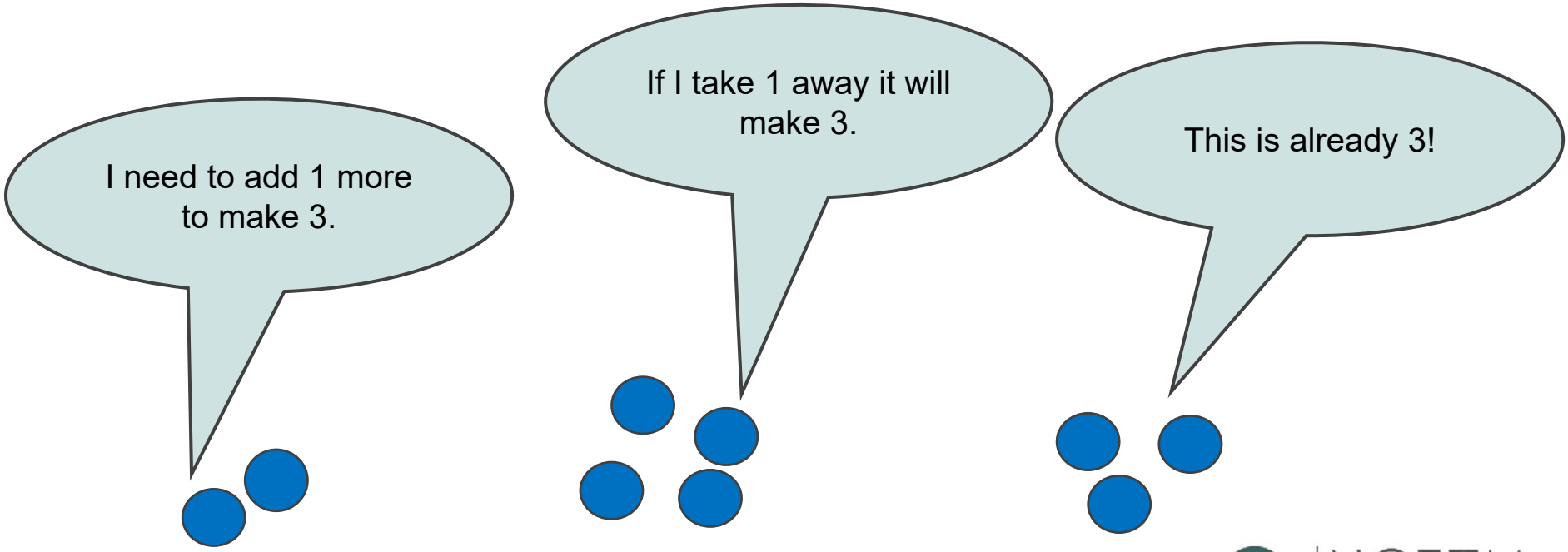
In Week 4, you will try this with different numbers…



4 or not 4?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Now ask: ‘What do you need to do to make it 3?’

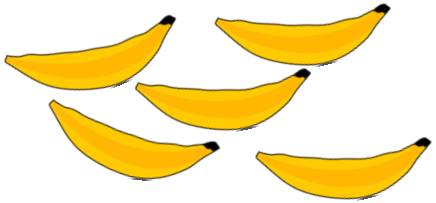


NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

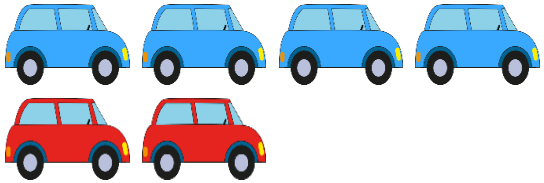
How does Mastering Number help us to teach maths in school?

The Mastering Number Programme in Year 1 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



Know different ways to ‘make’ (compose) a number

How do we develop good number sense?

Knowing how numbers are ‘made’ will help children later on with calculations.

I know that 6 is made of 4 and 2 so I will also know...

40 + 20

400 + 200

6 - 2

60 - 20

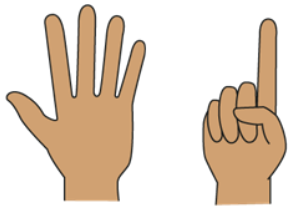
0.4 + 0.2

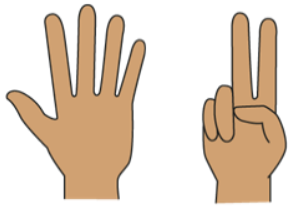
0.6 - 0.2

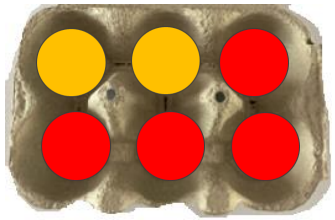
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

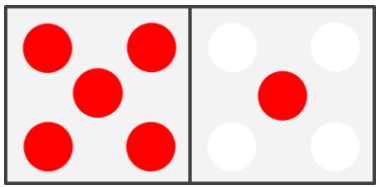
Let’s look at 6 and 7!

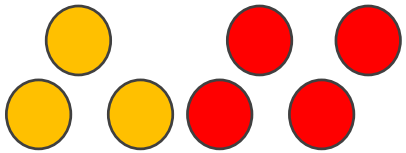
Finding all the ways that 6 and 7 are ‘made’ and then doing activities that give them a chance to practise will help children.

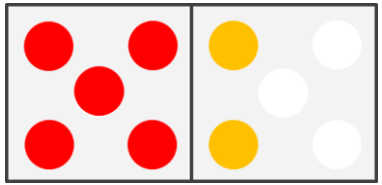












NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Recognising small ‘numbers’

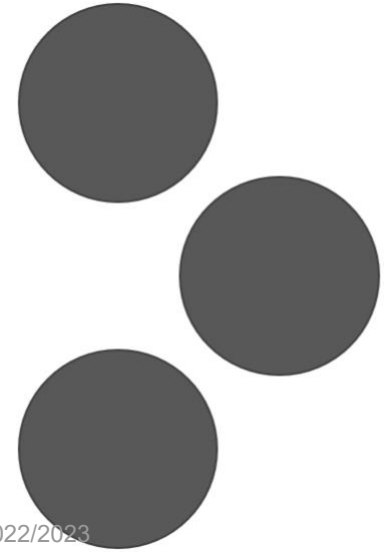
For all of the activities you will be doing at home, we want children to use a special skill called ‘subitising’.

Get your fast eyes ready!
Show on your fingers and tell your grown-up how many dots you can see!

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

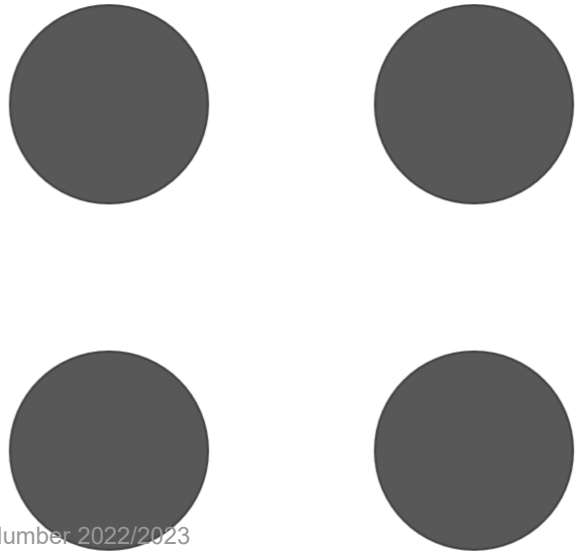
Mastering Number 2022/2023

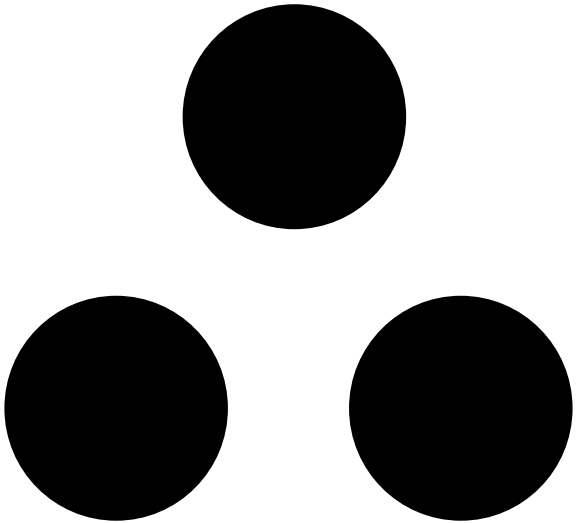
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

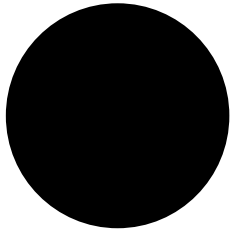


Mastering Number 2022/2023

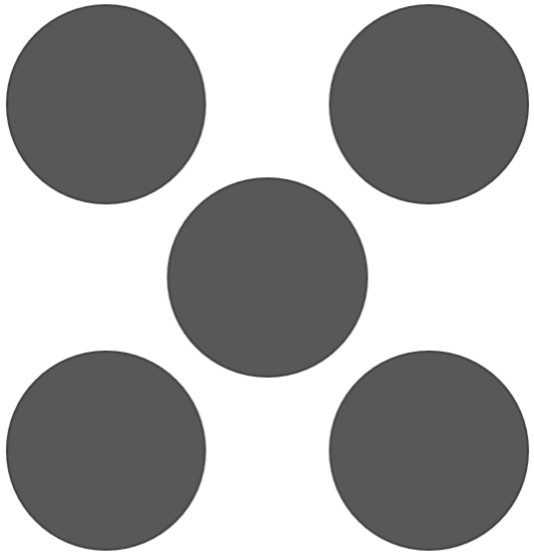
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



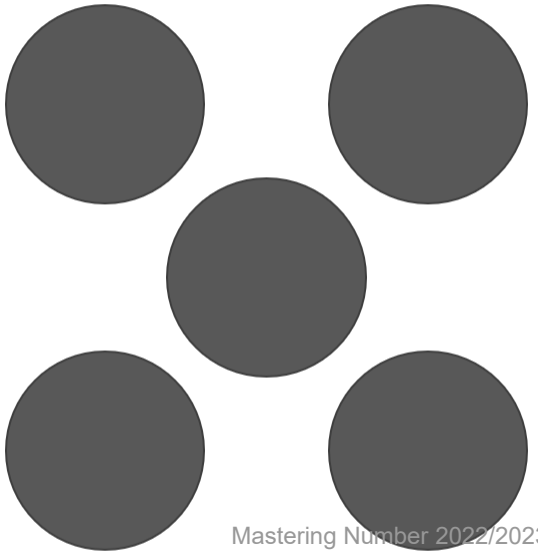


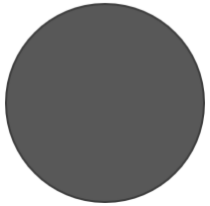


Mastering Number 2022/2023



Mastering N

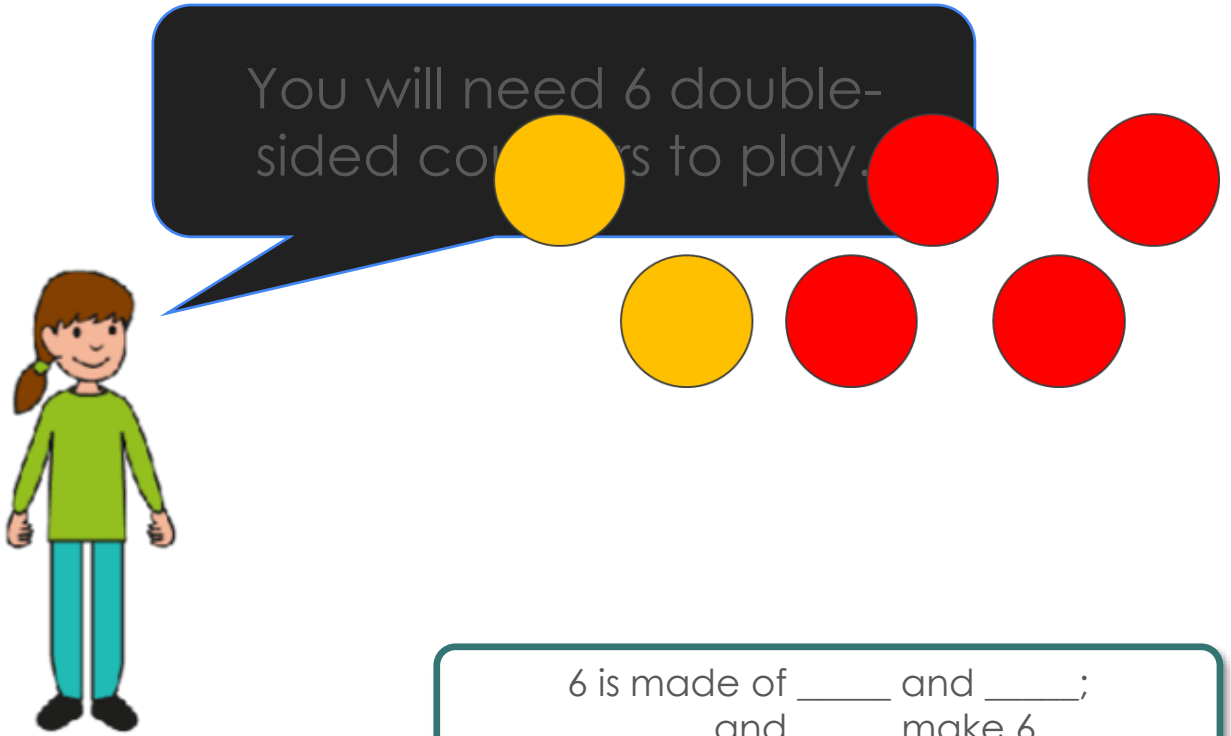




Home learning tasks

- Each week, you will be given a sheet that explains some activities that children can do with their grown-up.
- In Year 1, the tasks will all be about finding ways to make 6 and 7, but these tasks could be used for other numbers later on.
- In all of the tasks, children should be encouraged to ‘see’ the amount of objects without counting – just as they did in the previous activity.

Play ‘Drop the counters’

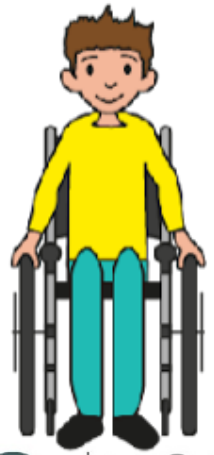


6 is made of _____ and _____;
_____ and _____ make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play ‘Drop 6 counters’ v
a grown up! How quic
can you say what you s

6 is made of 4 and 2;
4 and 2 make 6!



6 is made of _____ and _____;
_____ and _____ make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

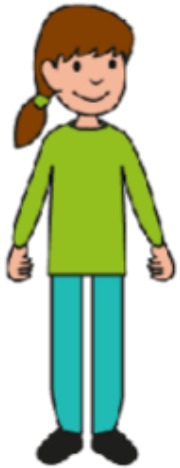
Year 1, Week 1 – Drop the counters

Monday				Wednesday				Friday			
Player 1		Player 2		Player 1		Player 2		Player 1		Player 2	
Colour 1 red	Colour 2 yellow	Colour 1	Colour 2	Colour 1	Colour 2	Colour 1	Colour 2	Colour 1	Colour 2	Colour 1	Colour 2 .....
5	1	5	1	5	1	5	1	5	1	5	1
4	2	4	2	4	2	4	2	4	2	4	2
3	3	3	3	3	3	3	3	3	3	3	3
2	4	2	4	2	4	2	4	2	4	2	4
1	5	1	5	1	5	1	5	1	5	1	5

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play ‘Egg Box 6’ with counters

Use your stem sentence strip again, this time using your egg box and counters.



6 is made of _____ and _____;
_____ and _____ make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

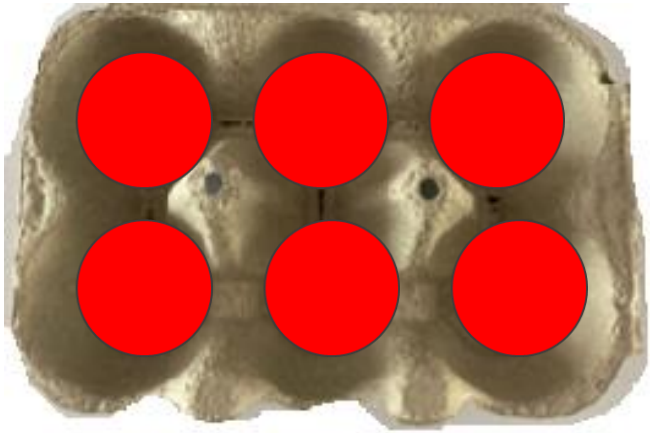
Let's work in order to find the ways to make 6.

6 is made of _____ and _____;
_____ and _____ make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Place all counters red side up

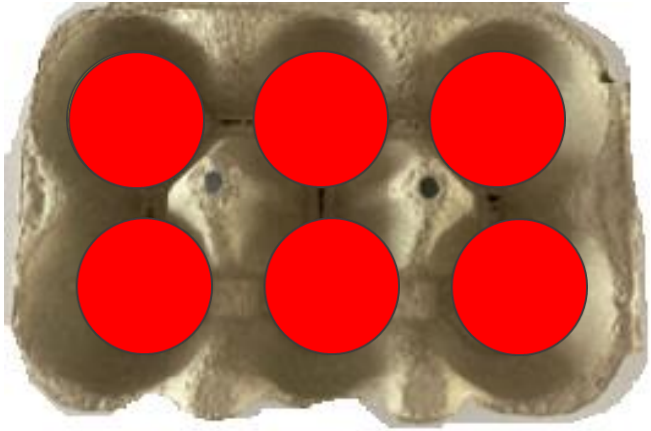
How many red counters?



How many yellow counters?

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

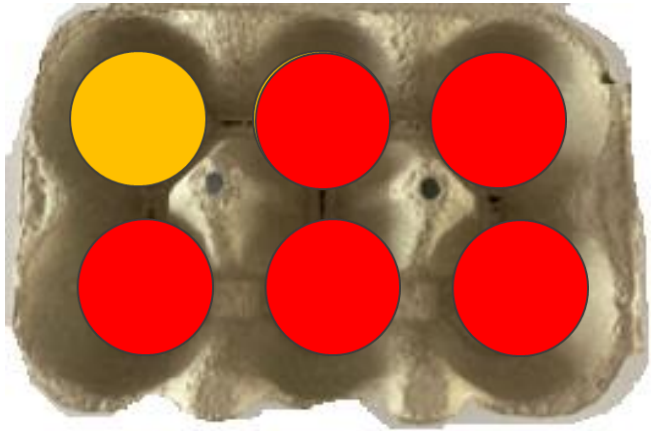
Turn over one counter at a time so you can see the yellow side



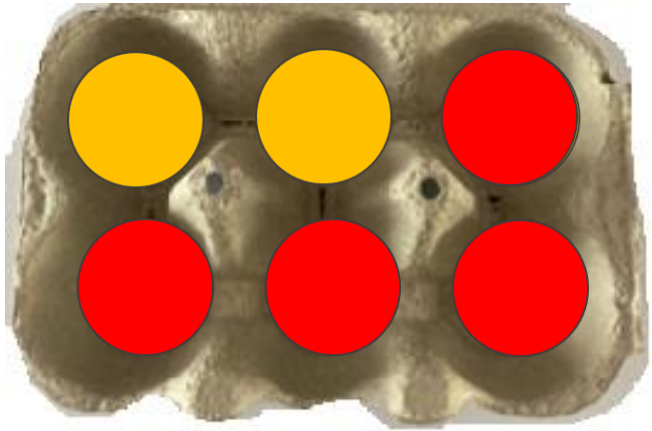
6 is made of 1 and 5;
1 and 5 make 6!

6 is made of _____ and _____;
_____ and _____ make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



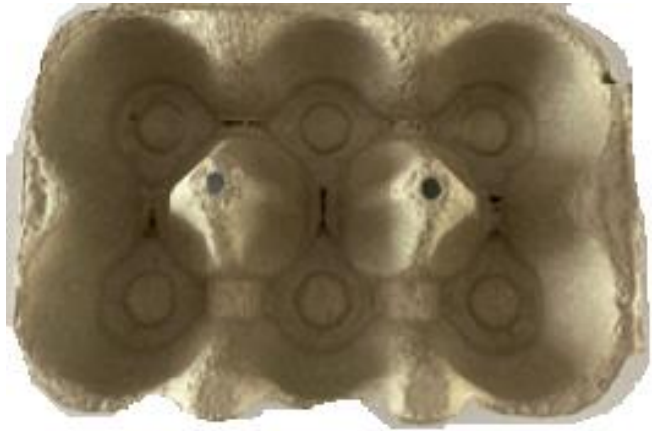
6 is made of _____ and _____;
_____ and _____ make 6.



6 is made of _____ and _____;
_____ and _____ make 6.

Play ‘Egg Box 6’ with objects

Gather 6 objects that can fit in the spaces in the egg box.



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Put some of the objects in th egg box and hide the other

How many more to make 6?

_____ needs _____ to make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

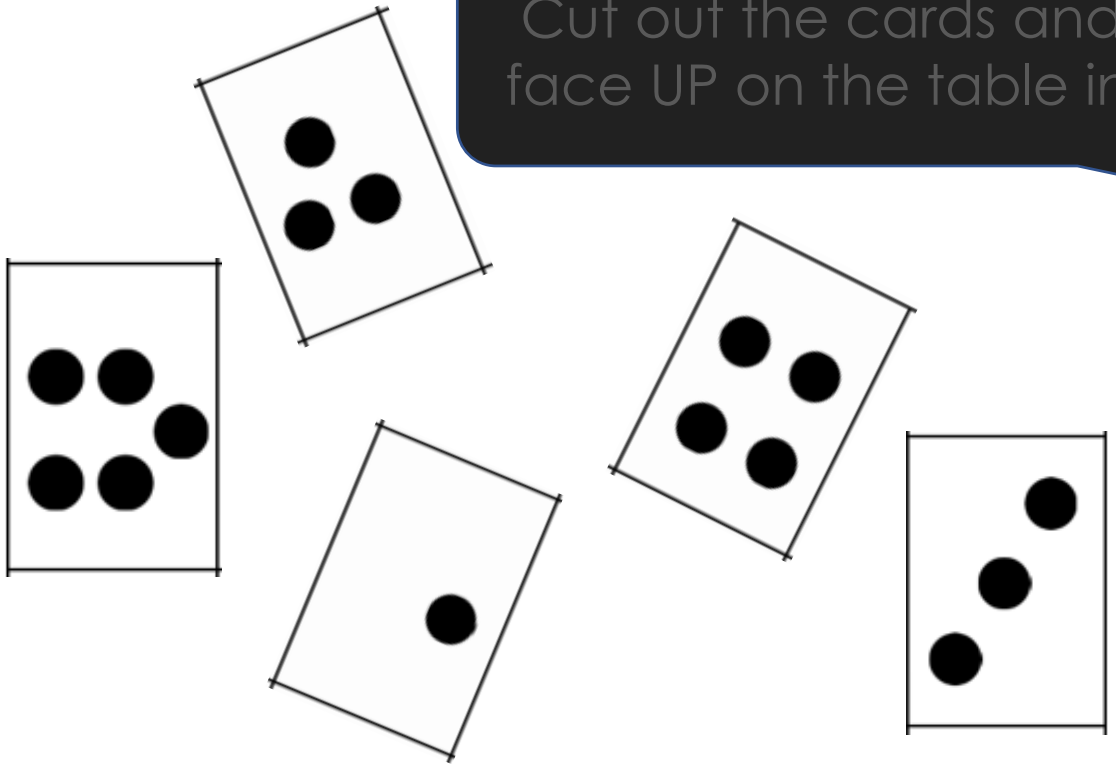
Play this again using different numbers of objects.

_____ needs _____ to make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

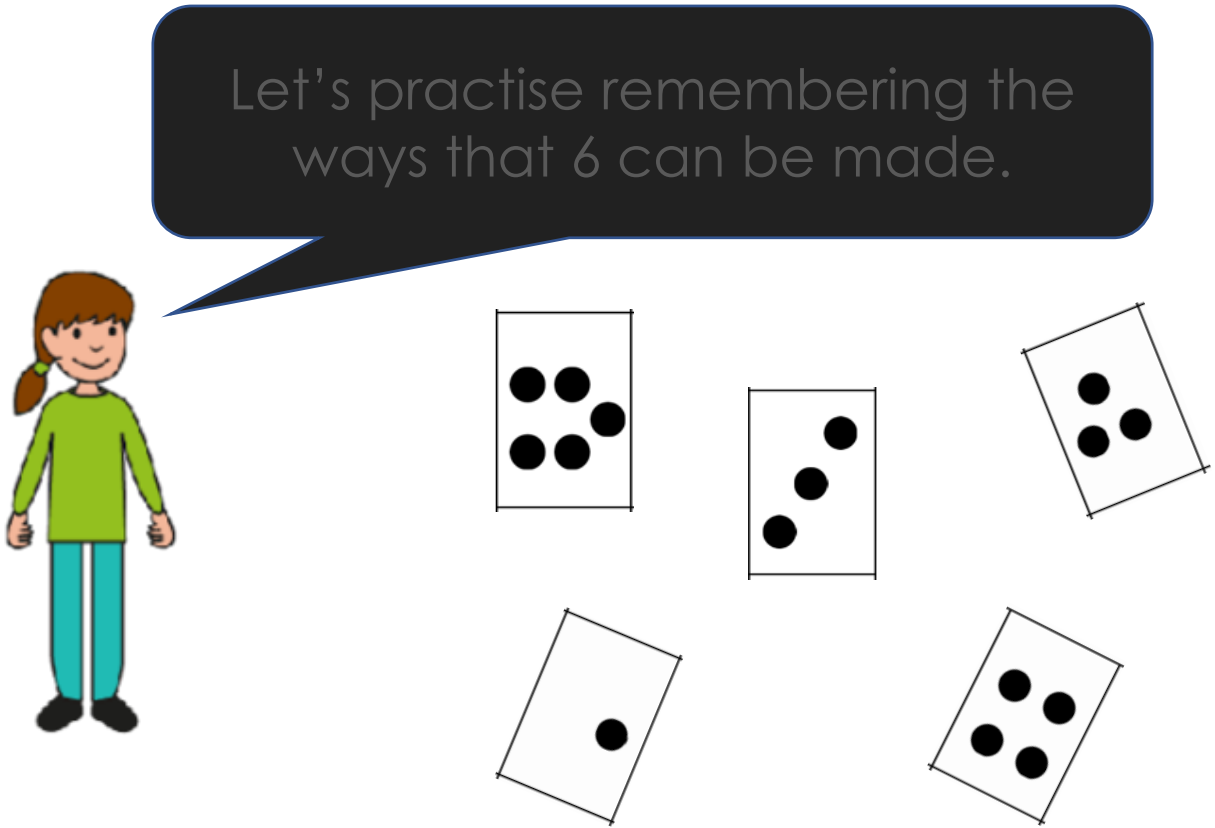
Find pairs to 6 with dots

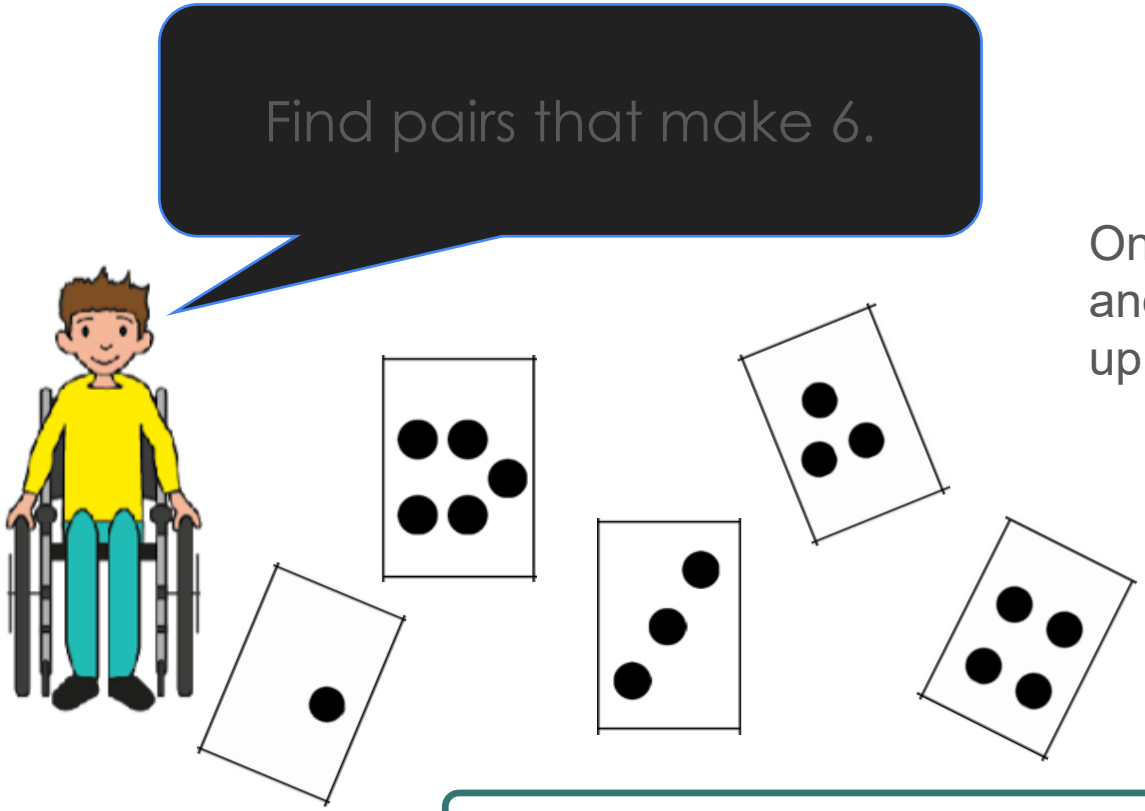
Cut out the cards and place them face UP on the table in front of you.



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play: ‘Find pairs to 6’ with dot cards





One person will pick up a card, and the other person must pick up the card that will ‘make 6’.

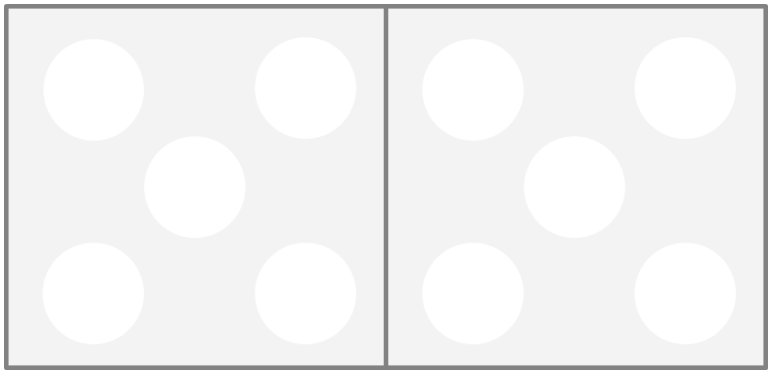
Use the stem sentence to support.

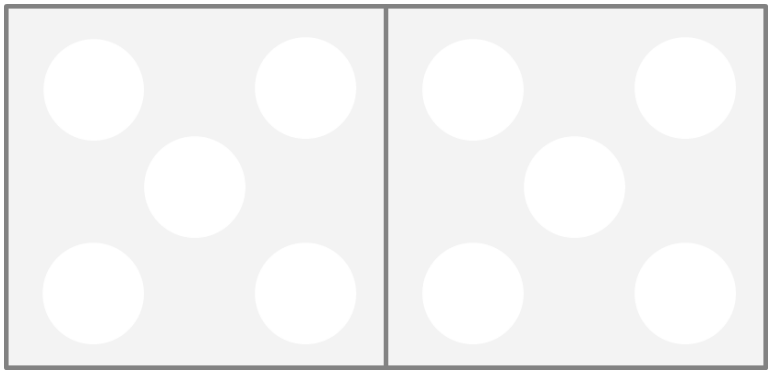
_____ needs _____ to make 6.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Week 2: In Week 4, children will find pairs of numbers that make 7 with dots.

Play ‘Copy my 7’



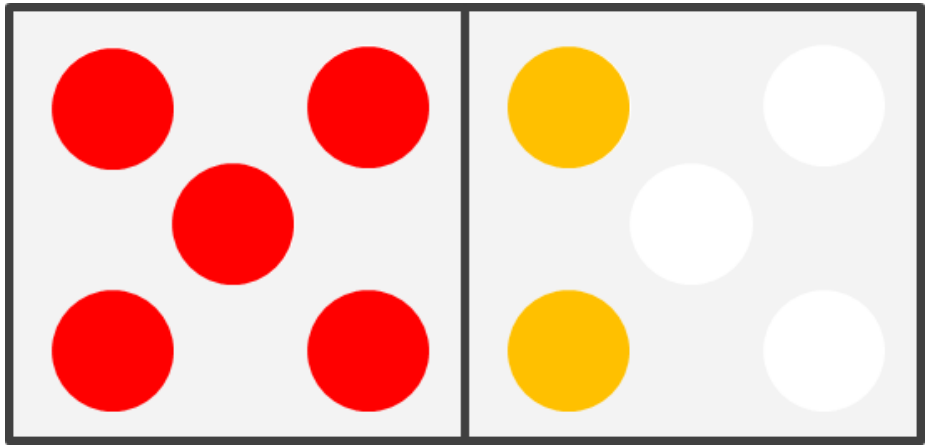


You will need two of these for this activity.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

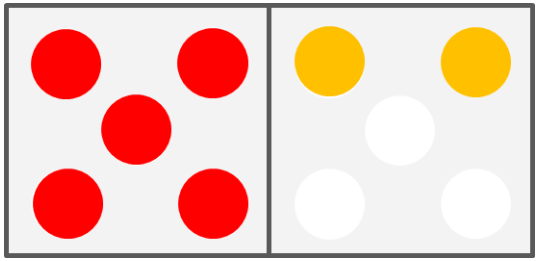
Grown-ups: make this arrangement and briefly show it to your child.

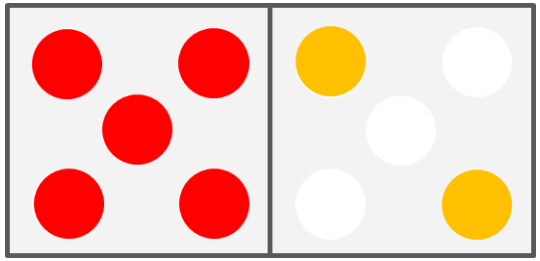
Children: can you copy the arrangement exactly?

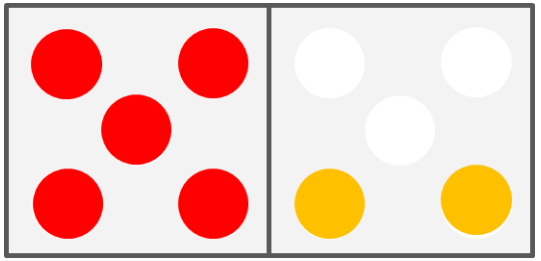


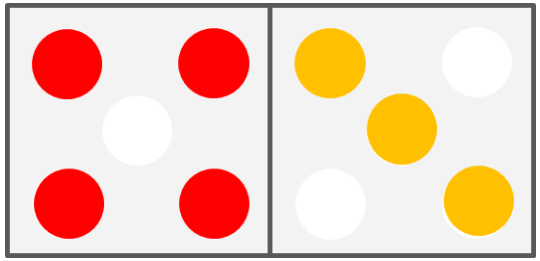
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

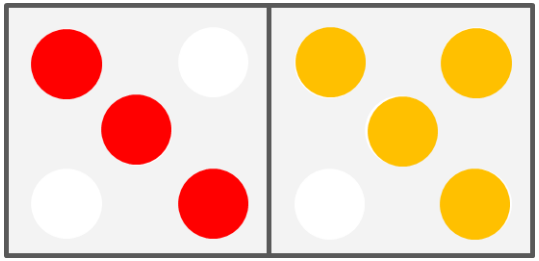
Now try some of these arrangements.

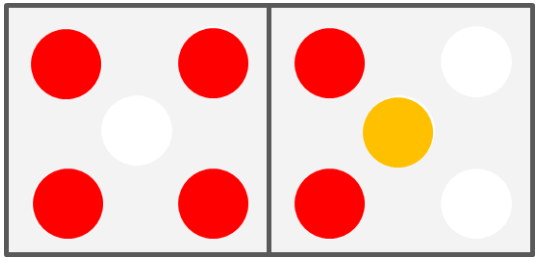






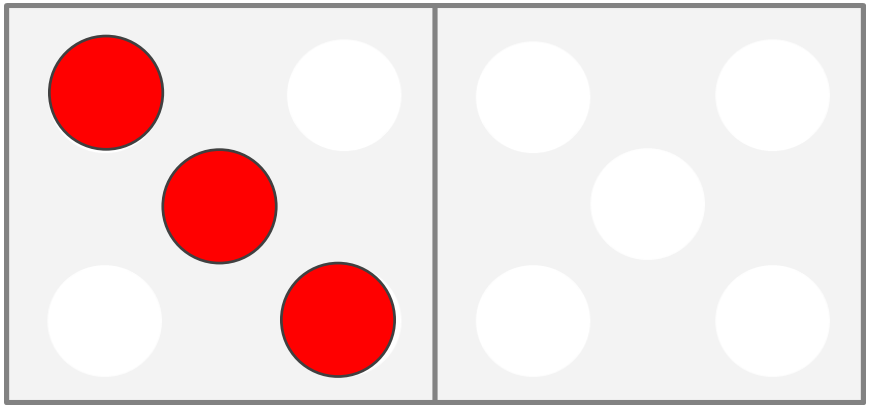






NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play ‘Make it 7’



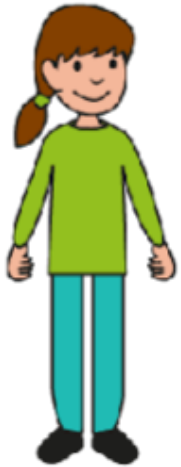
You will need 10 counters altogether.

Grown-ups – Place some counters (up to 5) on one side of the frame.

Children – place counters on the other side to make 7.

Play ‘Make it 7’

Each player needs to have some double-sided counters (up to 10 each).



One player should put some counters down on the table.

The second player needs to make 7 by adding the correct number of counters. Can you do it without counting?

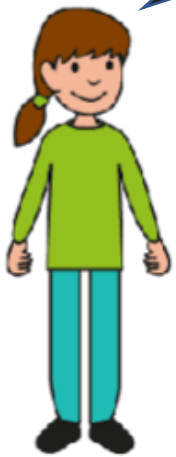
Use the stem sentence to say how many more makes 7.

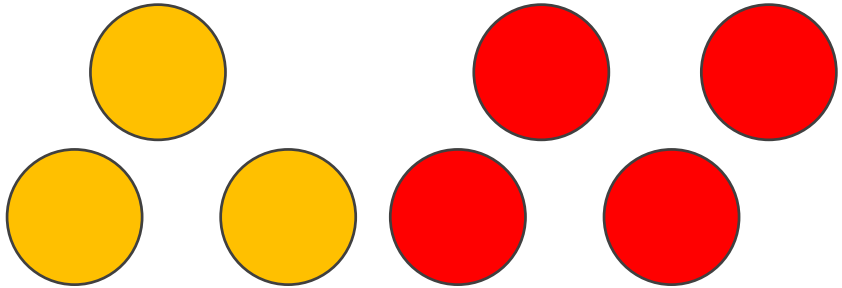
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Play ‘Make it 7’

That’s 4! I think 4 needs… 3 to make 7!

f ‘Make it into 7’ partner!



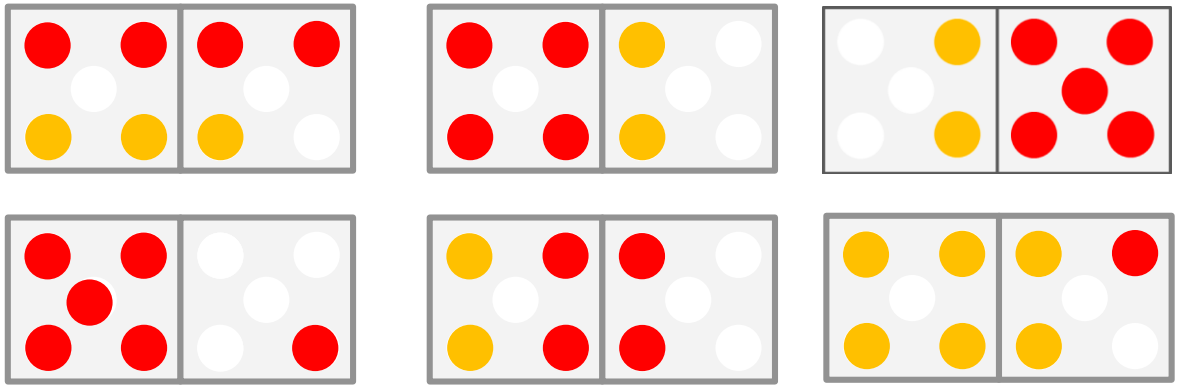


_____ needs _____ to make 7.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Subitising – 6 or 7

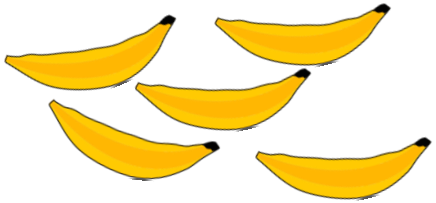
- By the end of the five weeks, your children might well be able to subitise patterns with counters and say whether there are 6 or 7.



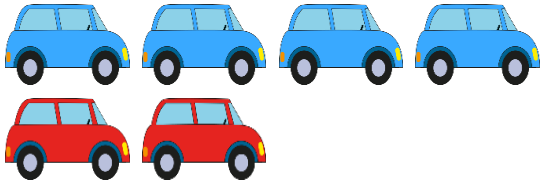
How does Mastering Number help us to teach maths in school?

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



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...

$5 + 3 = 8$

$50 + 30 = 80$

$500 + 300 = 800$

$8 - 3 = 5$

$80 - 30 = 50$

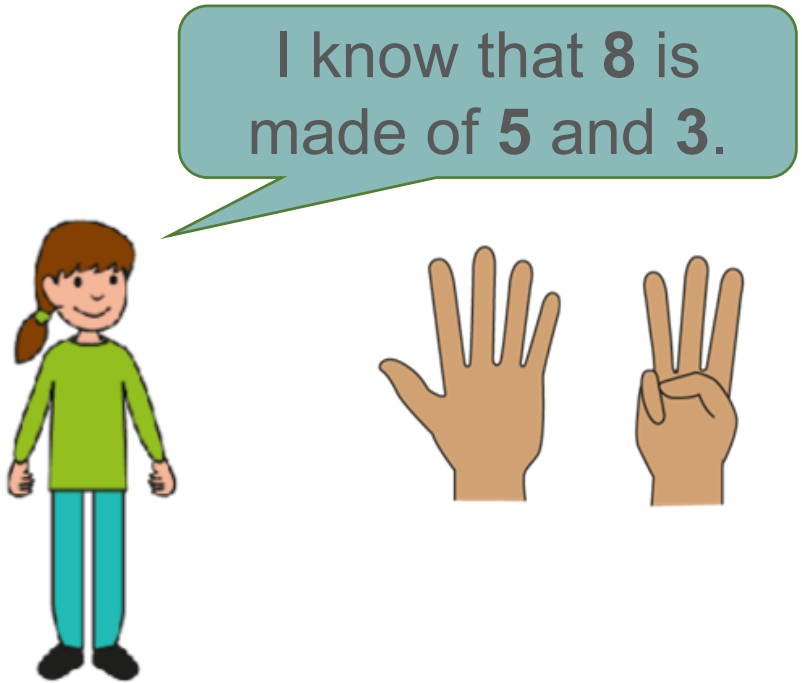
$0.5 + 0.3 = 0.8$

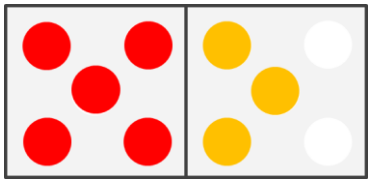
$0.8 - 0.3 = 0.5$

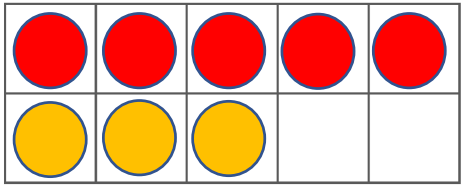
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Looking at the numbers 6, 7, 8 and 9

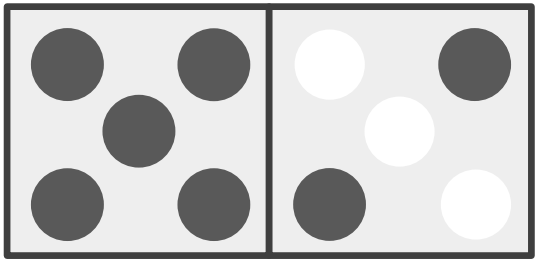
Children will learn that these numbers all have 5 ‘inside them’, as well as seeing all the ways they can be made.

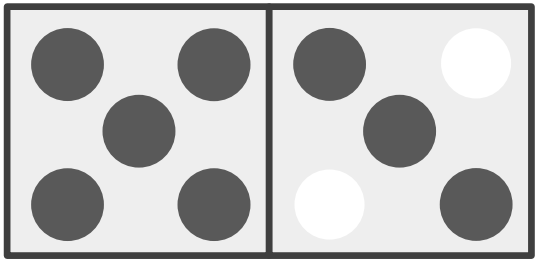


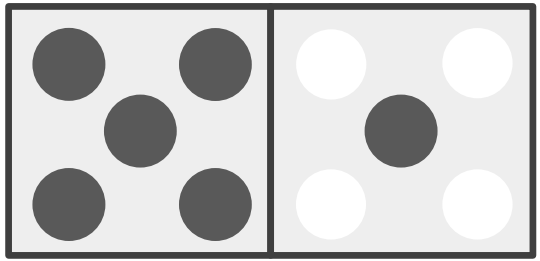


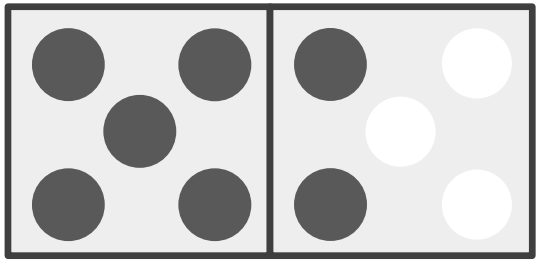


Prepare the matching activity by cutting out the cards



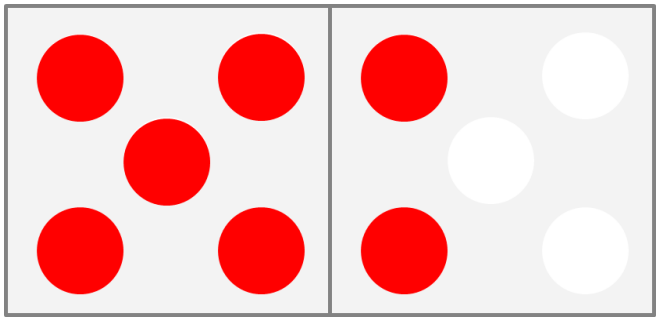


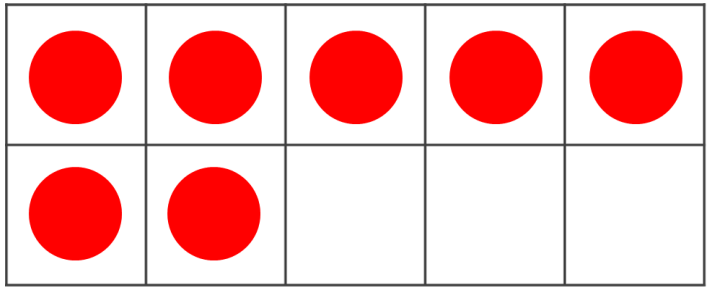




Play ‘Copy my number’

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’?



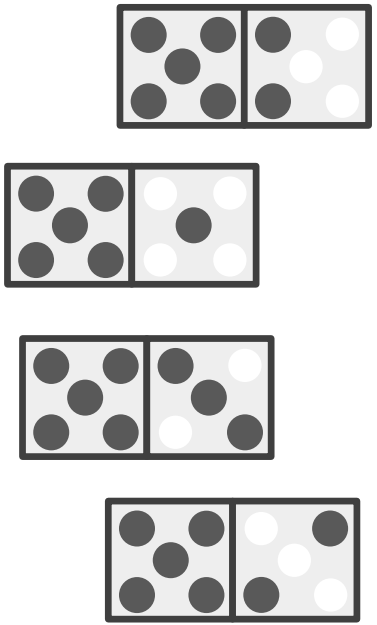


_____ is made of 5 and _____.
5 and ____ make _____.

Play ‘Shows 7 / Does not show 7’

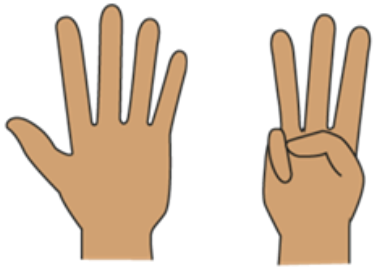
Sort the cards:

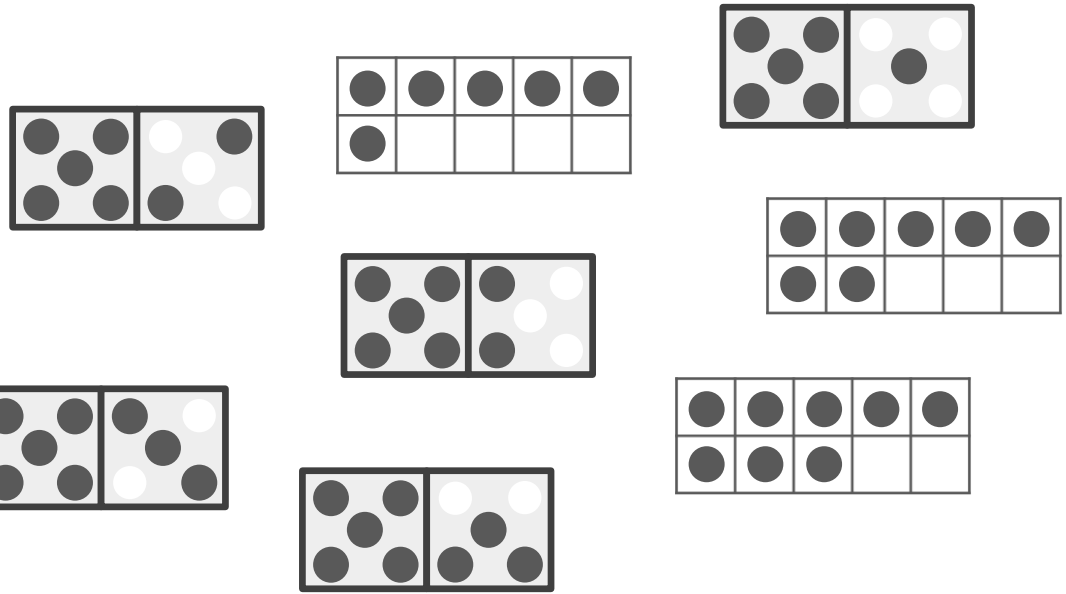
Shows 7	Does NOT show 7



Play ‘Match my fingers’

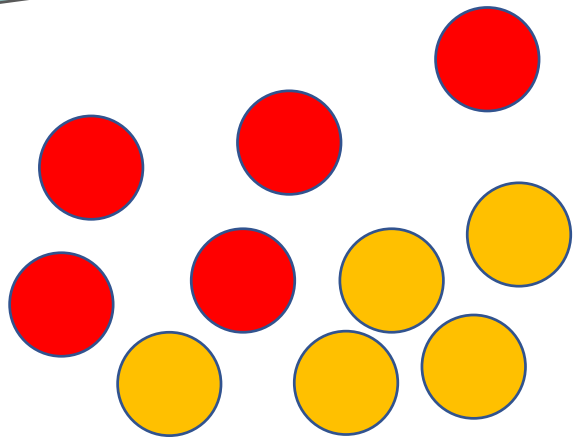
Grown-ups: use your fingers to show a number between 5 and 9.
Children: can you find four cards that show the same number?

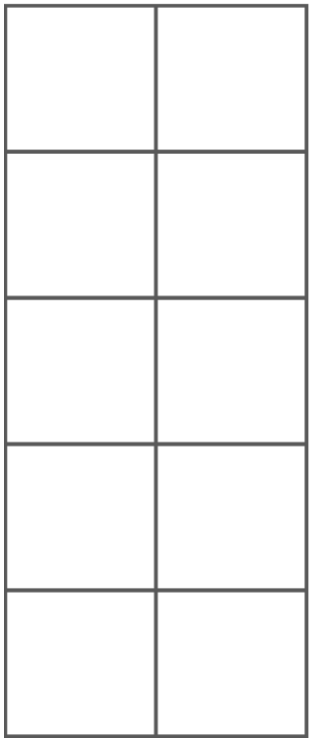




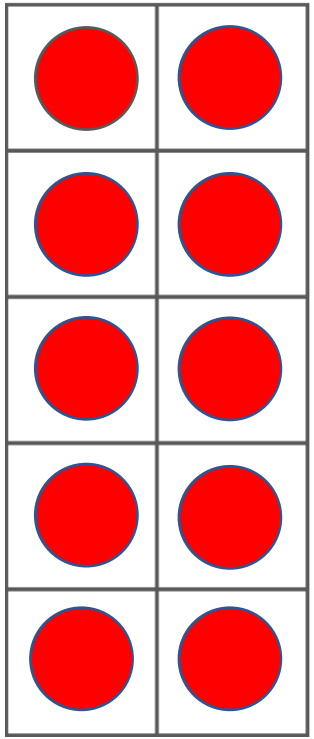
Play ‘Ways to make 10’

You will need your 10 frame and 10 counters.





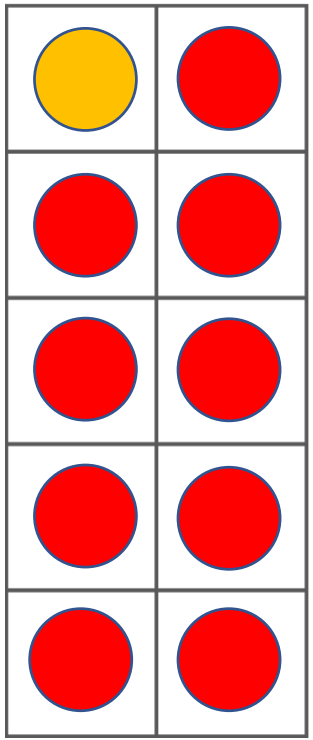
NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS



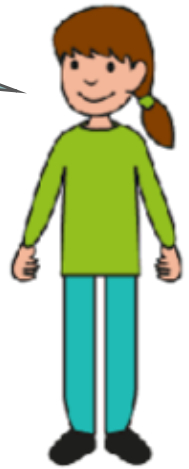
Start at the bottom and place two at a time.

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

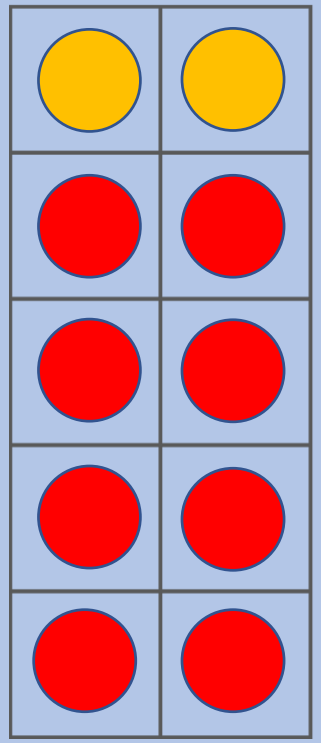
Grown-ups: turn one counter over at a time.



Say the stem sentence together.

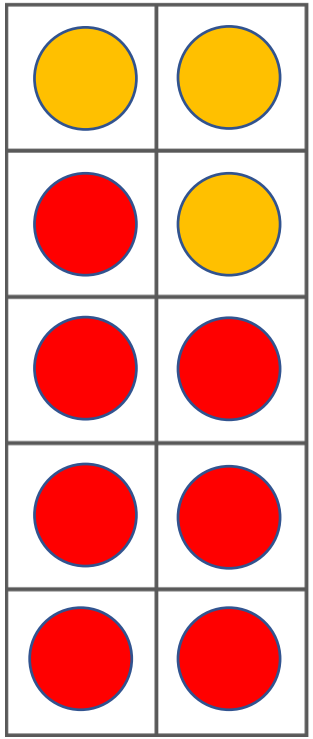


10 is made of ____ and ____.
____ and ____ make 10.

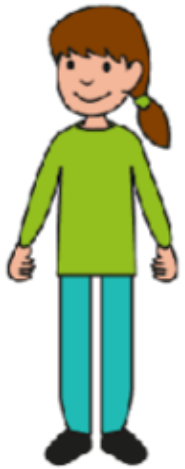


Keep saying the stem sentence together.

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



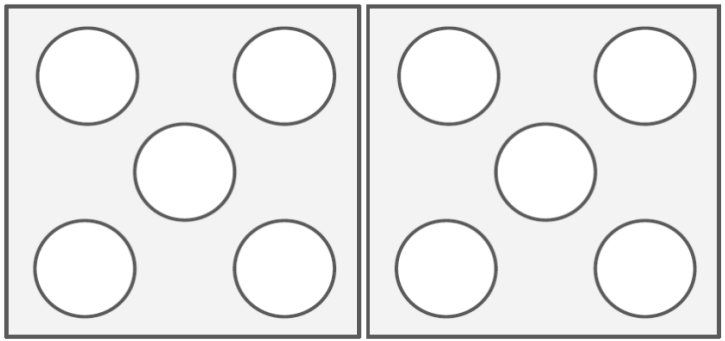
Continue doing this until all the counters are yellow.

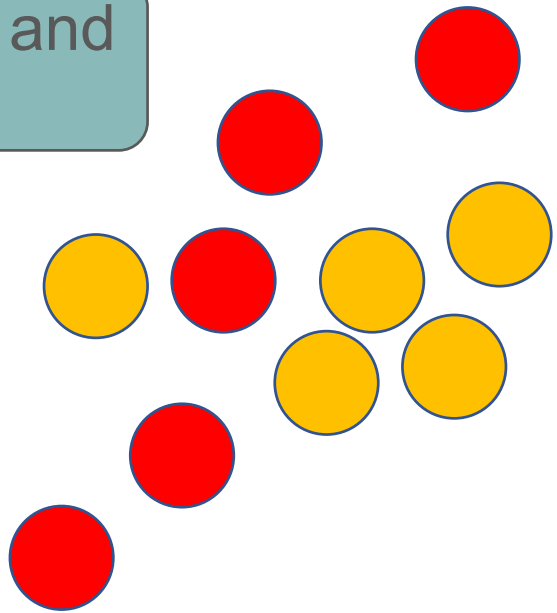


10 is made of ____ and ____.
____ and ____ make 10.

Play ‘How many more to make 10?’

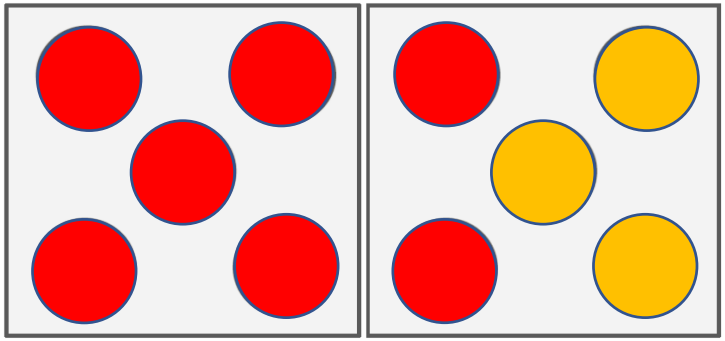
Now you will need your dice frame and 10 counters.





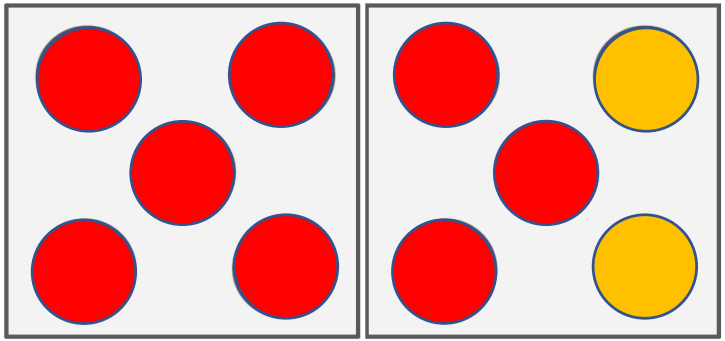
Grown-ups: Place 7 red counters onto the dice frame, using the ‘5 and a bit’ pattern.

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



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

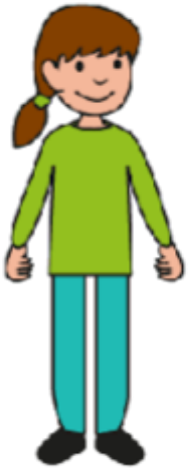
Grown-ups: Repeat using a different ‘5 and a bit’ number (e.g. 6, 8 or 9).

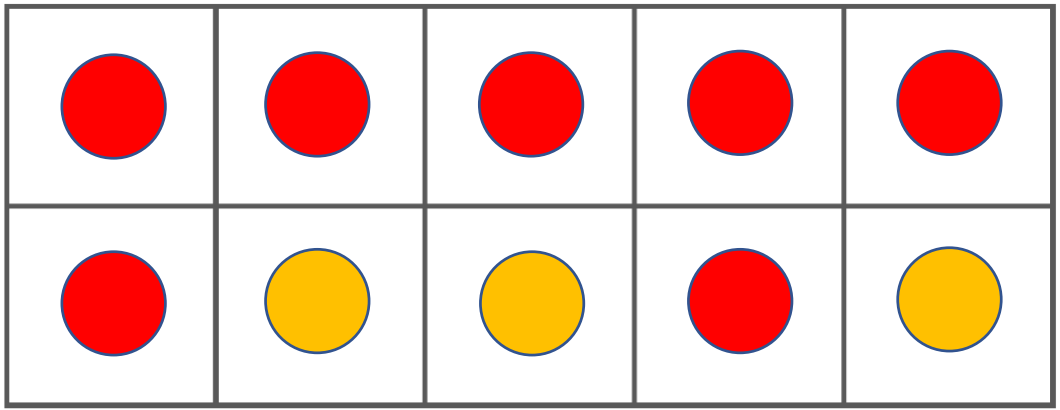


10 is made of _____ and _____.
_____ and _____ make 10.

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

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





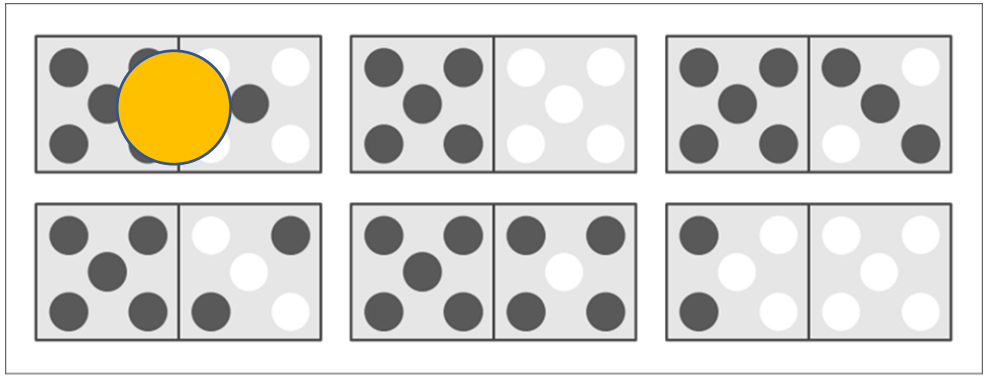
10 is made of _____ and _____.
_____ and _____ make 10.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

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.

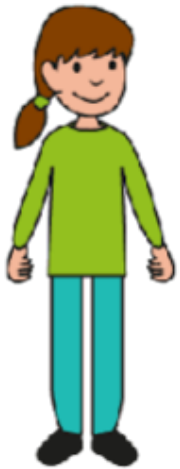
What does 4 need to make 10?

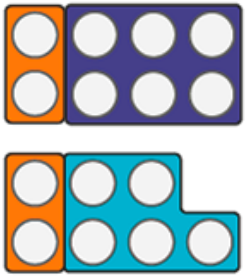


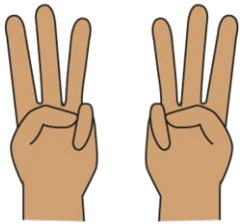
_____ needs _____ to make 10.

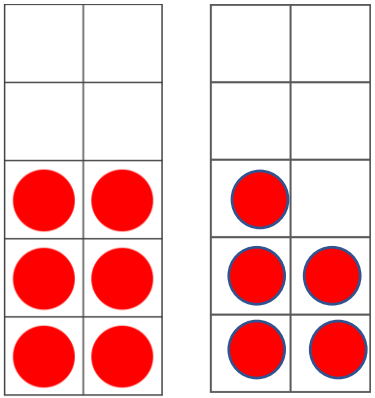
Odd and even numbers ‘inside’ other numbers

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



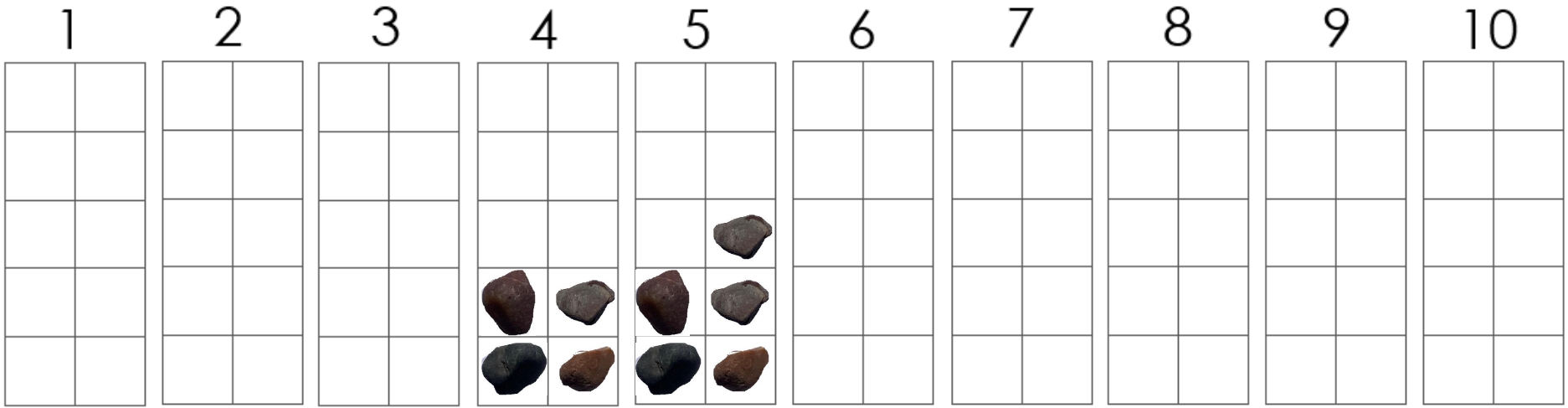




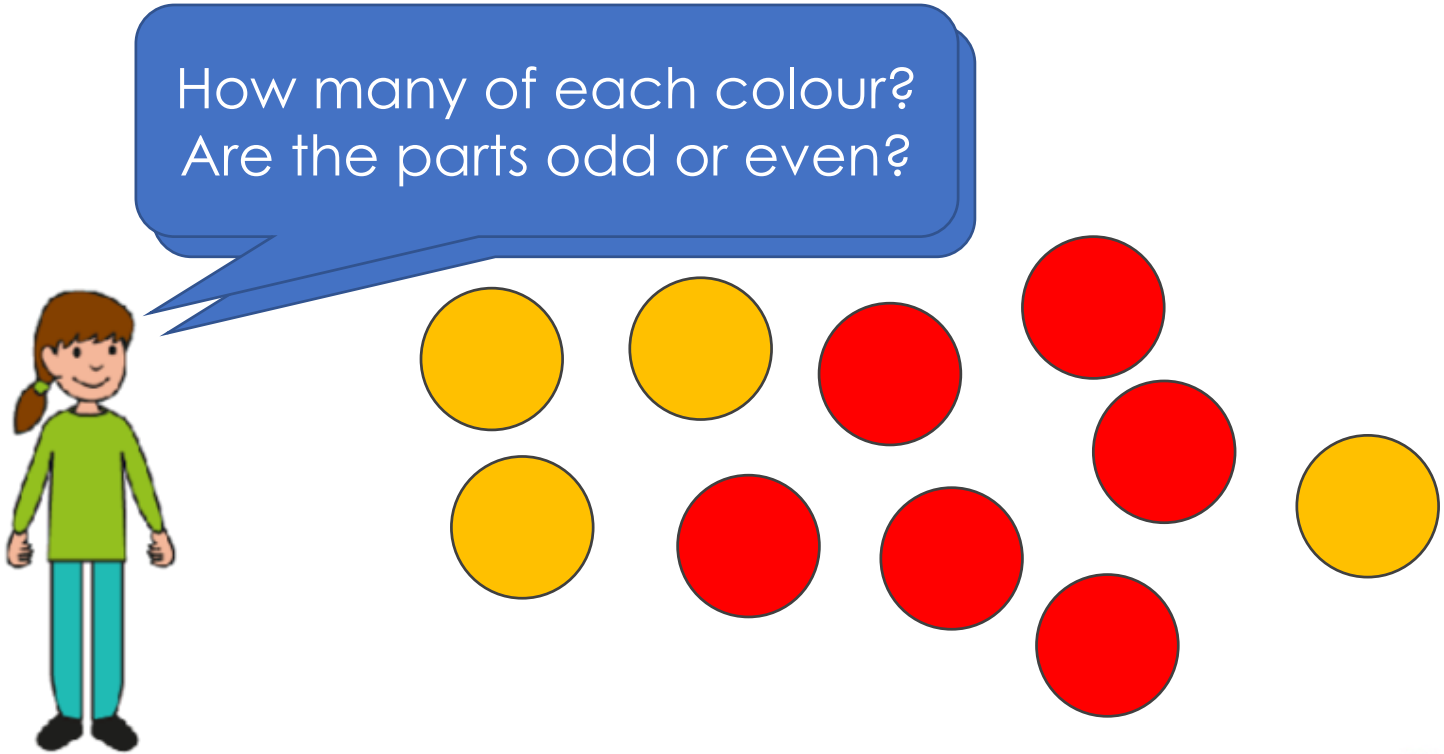


Use your objects to show the numbers on the 10-frames.
Place them in the order shown.

What do you notice about the pattern that is being made by 4 or 5 objects?

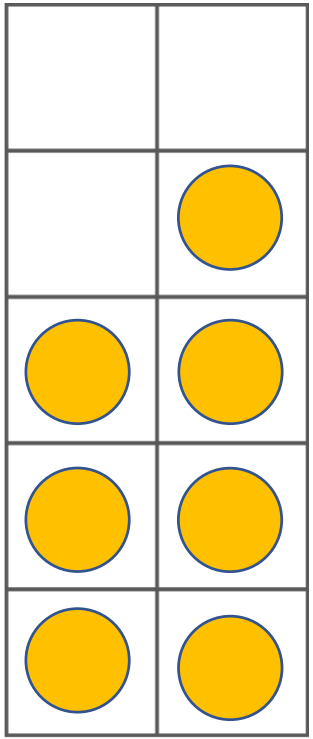


Play ‘Drop 10 counters’

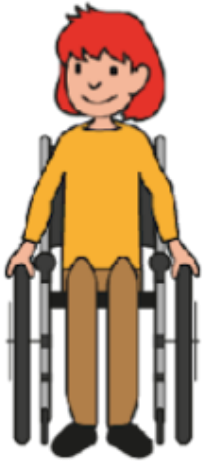


Play ‘Ways of making 7 and 8’

6 + 1
5 + 2
4 + 3
3 + 4
2 + 5
1 + 6

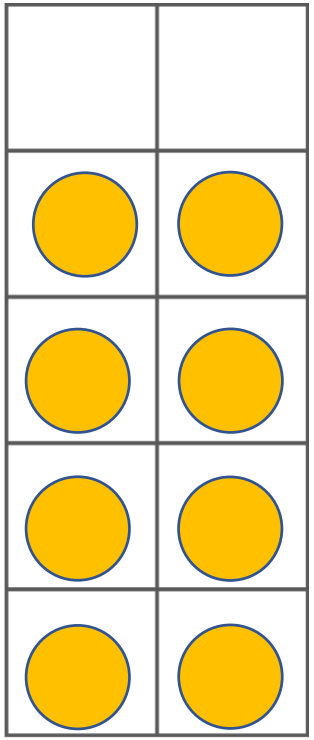


Can you see if 7 can be made of odd or even parts?

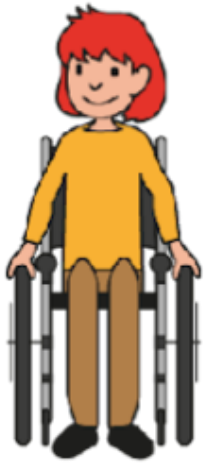


NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

7 + 1



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



NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

Home Learning

Your child will bring home the games discussed today.

The home learning for this week is set out on a sheet with instructions. You will get a new sheet and some new activities each week.

Mastering Number at Home

Reception – Week 1

Play 'Subitising to 3 Snap'

(Monday, Wednesday and Friday)

How to play

- Cut out the subitising cards on the worksheet **'Subitising to 3 Snap'**.
- Place the cards face-down on a flat surface.
- Take it in turns to turn over 2 cards at a time. Say the numbers you see on each card.
- If the numbers are the same, the player taking the turn wins the cards. If the numbers are different, the player must turn the cards face-down again.
- The winner is the player with the most cards at the end of the game.

Play the 'Part–part–whole game'

(Tuesday and Thursday)

How to play

- Cut out the image cards on the worksheet **'Part–part–whole game'**.
- Place the cards face-up on a flat surface.
- Take it in turns to pick 2 cards that make a whole.
- Say, *"part, part"*, as you pick up the cards, and *"whole"* as you put them together to make the complete image.

Other things to try at home

Hiding games

Hide up to 3 objects, such as acorns, blocks or small toys, under a tea towel, or under your hand. Quickly reveal the objects, then hide them again, saying, *"How many?"* Can your child subitise the amount without counting?

Be '2-spotters'

Ask your child to spot things at home that there are 2 of. Some things are often found in 2s, such as shoes or socks, but we can have 2 of anything!

Mastering Number at Home

Year 1 – Week 1

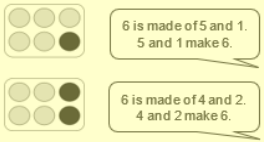
Drop the counters

(Monday, Wednesday and Friday)

How to play

- For this game, you will need 6 two-colour counters and the worksheet **'Drop the counters'**. Decide who will be player 1 and who will be player 2.
- Take it in turns to hold 6 counters in your hand and to drop them all at once onto the table.
- Check how many of each colour are showing. [Note that if all the counters land with the same colour showing, the player misses their turn.]
- Use the stem sentence to say aloud the way you have made 6. [See the example above and the worksheet **'Stem sentences'** for guidance.]
- On your recording sheet, cross out the way you have made 6 with the counters.
- Keep playing until either player has crossed out all the ways to make 6 on their sheet.

Egg box 6



(Tuesday and Thursday)

How to play

- For this game you will need an egg box and 6 two-colour counters.
- Place all 6 counters in the empty spaces in the egg box, with the same colour facing up.
- Turn over 1 counter and use the stem sentence to say the way to make 6 that is shown – *"6 is made of 5 and 1…"* [See the example above and the worksheet **'Stem sentences'** for guidance.]
- Keep turning over 1 counter at a time and saying the new way to make 6 until you have found *all* of the ways to make 6.

Other things to try at home

Noticing packs of 6

In your home, can you make a list of things you have bought in packs of 6?

Things to try outdoors

Make sets of 6 things you can find in nature, e.g. 6 leaves, 6 acorns, 6 conkers, 6 twigs, and so on. If you see a collection of fewer than 6 things, ask, *"How many more will make 6?"*

Mastering Number at Home

My Diary – Reception, 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 'Subitising to 3 Snap'.		Played the game with Aunty Jane. Found it tricky but it was fun.
Tues	We played the 'Part–part–whole game'.		
Wed	We played 'Subitising to 3 Snap'.		
Thurs	We played the 'Part–part–whole game'.		
Fri	We played 'Subitising to 3 Snap'.		

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

Very confident  It was okay  Not too sure 

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 

NCETM
NATIONAL CENTRE for EXCELLENCE in the TEACHING of MATHEMATICS

Thank you!

NCETM

NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS