



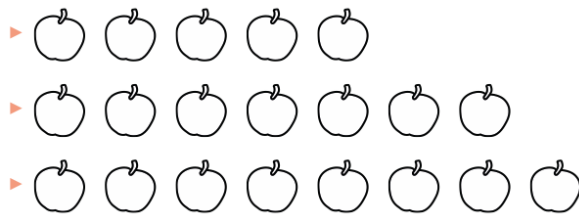
# Maths – Place Value

YEAR 1  
Block 1

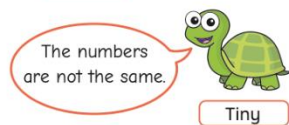
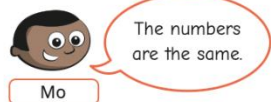
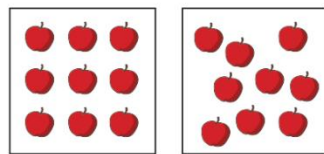
## Small Steps:

- Sort objects
- Count objects
- Count objects from a larger group
- Represent objects
- Recognise numbers as words
- Count on from any number
- 1 more
- Count backwards within 10
- 1 less
- Compare by matching
- Fewer, more, same
- Less than, greater to, equal to
- Compare numbers
- Order objects and numbers
- The number line

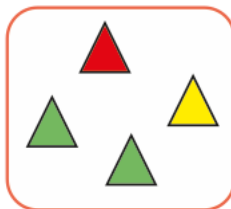
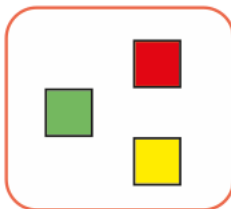
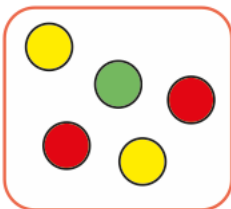
Colour 5 apples in each set.



The apples show two numbers.



What number is on each dice?



## Key Questions:

- What is the same about all the objects in the set?
- What is different about the sets?
- Can you think of a different way to sort the objects?
- How many objects are there?
- If I move them around, are there still the same number of objects? Count and check.
- Does it matter which object you count first?
- Should you start counting at one or zero?
- How do you know you have counted all the objects?
- Do you need to count them all?
- How many are left?

## Key Vocabulary:

- objects
- set
- group
- sort
- total

## Stem Sentences:

- This set of objects has been sorted by \_\_\_\_\_
- I could also sort the objects by \_\_\_\_\_
- \_\_\_\_\_ does belong in the set because ...
- \_\_\_\_\_ does not belong in the set because ...
- The last number I said was \_\_\_\_\_, so there are \_\_\_\_\_ objects in total
- I need to count \_\_\_\_\_ objects from the group
- There are \_\_\_\_\_ objects left in the group.



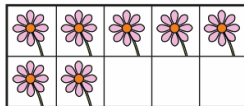
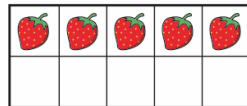
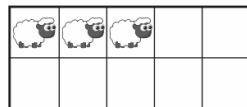
# Maths – Place Value

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Write the numeral to match each set of objects.



Match the numerals to the words.

5

two

2

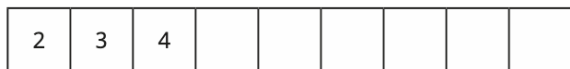
nine

7

five

9

seven



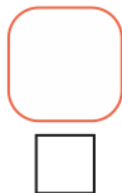
1



2



3



## Key Questions:

- So how many counters do you need?
- How can you use cubes to show how many leaves you have?
- Draw circles to show sweets. How many circles will you draw?
- How many words can you match to the numerals? Which ones are left?
- Does the greatest number always have the most letters in the word?
- Does the smallest number always have the fewest letters in the word?
- What number are you starting from?
- What number comes next?
- What does "1 more" mean?
- How can you show 1 more?

## Stem Sentences:

- I can use a \_\_\_\_\_ to represent each \_\_\_\_\_
- There are \_\_\_\_\_ frogs, so I need \_\_\_\_\_ cubes/counters.
- The numeral for five is \_\_\_\_\_
- The numeral for \_\_\_\_\_ is \_\_\_\_\_
- I need to start counting from \_\_\_\_\_
- The number that comes after \_\_\_\_\_ is \_\_\_\_\_
- I will say the number \_\_\_\_\_ because ...
- 1 more than \_\_\_\_\_ is \_\_\_\_\_
- \_\_\_\_\_ is 1 more than \_\_\_\_\_
- First there were \_\_\_\_\_. Then \_\_\_\_\_. Now there are \_\_\_\_\_.

## Key Vocabulary:

represent  
numerals  
greatest  
smallest  
forwards  
backwards  
1 more  
First  
Then  
Now

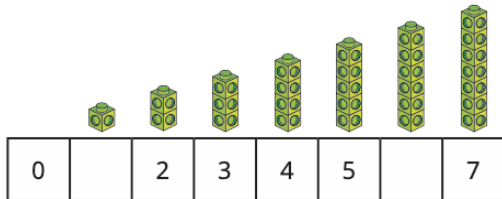


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Can each bird have a wiggly worm?



## Key Questions:

- What is the same and what is different about counting forwards to 10 and counting backwards from 10?
- When counting backwards, do you say the same words as when counting forwards?
- Should you stop counting at one or zero?
- What does “1 less” mean?
- How can you show 1 less?
- Where is 1 less than \_\_\_\_\_ on the number track?
- What does “match” mean?
- How can you show that you have matched the objects/pictures?
- Are there enough objects/pictures to match them all up?

## Key Vocabulary:

represent  
numerals  
greatest  
smallest  
forwards  
backwards  
1 less  
First  
Then  
Now  
compare  
match

## Stem Sentences:

- The number that comes before \_\_\_\_\_ is \_\_\_\_\_
- When counting backwards from \_\_\_\_\_, the numbers I will say are...
- 1 less than \_\_\_\_\_ is \_\_\_\_\_
- \_\_\_\_\_ is 1 less than \_\_\_\_\_
- There are \_\_\_\_\_ children and \_\_\_\_\_ presents. Each child can/cannot have a present because...
- I know that there are/are not enough objects/pictures to match them all up because ...



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Max and Sam are thinking of a number.



My number is three.

Max



My number is five.

Sam

Whose number is greater?

How do you know?

Choose a word to complete the sentences.

fewer

more

same



Max



Kim

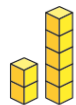


Mo

Kim and Mo have the \_\_\_\_\_ number of cubes.

Kim has \_\_\_\_\_ cubes than Max.

Max has \_\_\_\_\_ cubes than Mo.



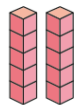
2 ○ 5



4 ○ 1



1 ○ 4



5 ○ 5

Write <, > or = to compare the numbers.

1 ○ 5

7 ○ 8

4 ○ 0

## Key Questions:

- How do you know the towers are the same?
- Which ten frame has more? How do you know?
- Who has fewer/more cubes than you?
- How can you use cubes to show that 6 is less than 7?
- How can you use cubes to show that 3 is equal to 3?
- How many different ways can you show that 7 is greater than 4?
- When you count forwards from zero, which of the numbers do you say first?
- Which number is further along the number track?
- Which is the smaller number? How do you know?
- What does each symbol mean?

## Stem Sentences:

- Sam has \_\_\_\_\_ cubes than Mo.
- There are \_\_\_\_\_ counters in box A than box B
- There are fewer/more \_\_\_\_\_ than \_\_\_\_\_
- \_\_\_\_\_ is less than/greater than/equal to \_\_\_\_\_
- \_\_\_\_\_ **q** \_\_\_\_\_
- \_\_\_\_\_ **G** \_\_\_\_\_
- \_\_\_\_\_ = \_\_\_\_\_

## Key Vocabulary:

number  
fewer  
more  
same  
greater than  
less than  
equal to  
compare



# Maths – Place Value

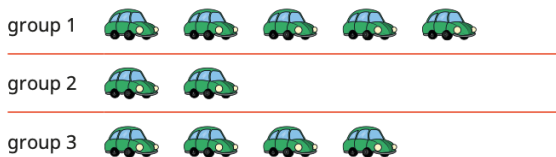
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Order the groups of cars.

Start with the the group that has the fewest cars.



Each domino shows a number.

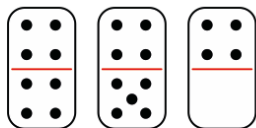
Put the dominoes in order.

Start with the smallest number.

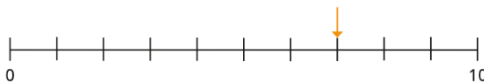
Complete the sentences.

The greatest number is \_\_\_\_\_

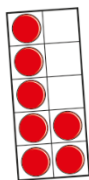
\_\_\_\_\_ is the smallest number.



Tiny draws an arrow to a number on the number line.



Which picture does **not** match Tiny's number?



Talk about it with a partner.



## Key Questions:

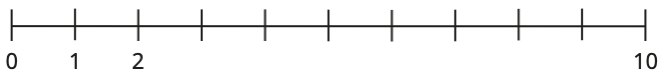
- How did you compare the piles/groups?
- How do you know that group \_\_\_\_\_ is the greatest?
- How do you know that group \_\_\_\_\_ is the smallest?
- How many answers are there? How can you show this with cubes?
- How have these objects/numbers been ordered?
- How can you label the number line? How do you know where to put the numbers?
- What does each mark on the number line represent?
- How can you find 1 more/1 less on the number line?
- How can you use a number line to decide which number is greater?
- How much is each jump on the number line?

## Stem Sentences:

- Group \_\_\_\_\_ has the greatest amount of \_\_\_\_\_
- Group \_\_\_\_\_ has the smallest amount of \_\_\_\_\_
- The first number on the number line is \_\_\_\_\_
- The last number on the number line is \_\_\_\_\_
- To find 1 more, I need to ...
- To find 1 less, I need to ...

## Key Vocabulary:

fewer  
more  
same  
greater than  
less than  
equal to  
compare  
order  
number line  
number track



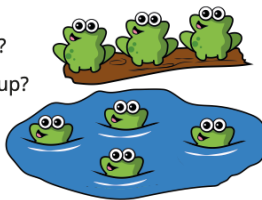
# Maths – Addition and Subtraction

## Small Steps:

1. Introduce parts and wholes
2. Part-whole model
3. Write number sentences
4. Fact families – addition facts
5. Number bonds within 10
6. Systematic number bonds within 10
7. Number bonds to 10
8. Addition - add together
9. Addition – add more
10. Addition problems
11. Find a part
12. Subtraction – find a part
13. Fact families – the eight facts
14. Subtraction – takeaway/cross out
15. Takeaway (How many left?)
16. Subtraction on a number line
17. Add or subtract 1 or 2

Here are some frogs.

- ▶ Can you see two groups of frogs?
- ▶ How many frogs are in each group?
- ▶ Complete the sentences.  
 \_\_\_\_\_ is a part.  
 \_\_\_\_\_ is a part.  
 The whole is \_\_\_\_\_



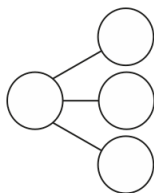
Here are seven pieces of fruit.



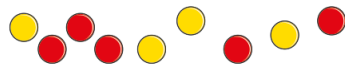
Put the fruit into a part-whole model.

Complete the sentences.

- \_\_\_\_\_ is the whole.  
 \_\_\_\_\_ is a part, \_\_\_\_\_ is a part and \_\_\_\_\_ is a part.

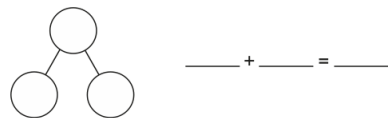


Here are some counters.



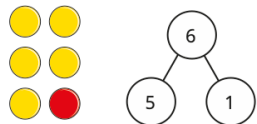
Group the counters by colour.

- ▶ Complete the sentence and say it out loud.  
 \_\_\_\_\_ red counters plus \_\_\_\_\_ yellow counters is equal to \_\_\_\_\_ counters.
- ▶ Complete the part-whole model and the number sentence.



Complete the fact family.

Use the counters and the part-whole model to help you.



- 1 + \_\_\_\_\_ = 6  
 \_\_\_\_\_ + 1 = 6  
 \_\_\_\_\_ = \_\_\_\_\_ + 1  
 6 = \_\_\_\_\_ + \_\_\_\_\_

## Key Questions:

- Where is the whole?
- Where are the parts?
- Is the whole always greater than the part?
- Can zero be a part?
- Can the parts be swapped around?
- What happens when you put the parts back together?
- How many different ways can you split the whole into two parts?
- How many were there at the start? Then how many more were added?
- What is the total?
- What does = mean?
- Which number shows the total?
- What is the same/different about the four addition sentences?
- What happens when the parts are the same?

## Stem Sentences:

- \_\_\_\_\_ is a part, \_\_\_\_\_ is a part. The whole is \_\_\_\_\_
- The whole is \_\_\_\_\_ than the part
- There is/are \_\_\_\_\_ in each part
- \_\_\_\_\_ plus \_\_\_\_\_ is equal to \_\_\_\_\_
- \_\_\_\_\_ is equal to \_\_\_\_\_ plus \_\_\_\_\_
- \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- \_\_\_\_\_ = \_\_\_\_\_ + \_\_\_\_\_

## Key Vocabulary:

- part-whole model
- part
- whole
- greater than
- less than
- equal to
- total
- plus
- add





# Maths – Addition and Subtraction

YEAR 1  
Block 2

## Small Steps:

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15. Takeaway (How many left?)
16. Subtraction on a number line
17. Add or subtract 1 or 2

Here are five cubes.



Break them apart in different ways to find all the number bonds to 5

One has been done for you.



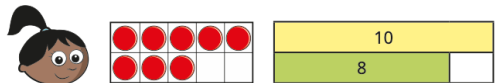
Use two different-coloured crayons.

Colour the counters to find all the bonds to 4

○ ○ ○ ○	_____ + _____ = 4
○ ○ ○ ○	_____ + _____ = 4
○ ○ ○ ○	_____ + _____ = 4
○ ○ ○ ○	_____ + _____ = 4
○ ○ ○ ○	_____ + _____ = 4

Which number sentences show the same bond?

Sam puts some counters on a ten frame and draws a bar model.



How many more counters does Sam need to fill the ten frame?

Complete the bar model.

Write a number sentence to show the bond to 10

## Key Questions:

- What is the whole? What are the parts?
- Does the whole always stay the same?
- How can you partition the whole?
- Do the parts stay the same or change?
- If 8 is the whole, what could the parts be?
- How many \_\_\_\_\_ are there?
- How many \_\_\_\_\_ are there altogether?
- What happens if you turn over one counter? What happens if you turn over another counter?
- Can you write any of the bonds another way?
- How do you know that you have found them all?
- How many more do you need to make 10?
- What number bond can you see?
- What is the same about  $2 + 8$  and  $8 + 2$ ? What is different?

## Stem Sentences:

- \_\_\_\_\_ plus \_\_\_\_\_ is equal to \_\_\_\_\_
- \_\_\_\_\_ is equal to \_\_\_\_\_ plus \_\_\_\_\_
- \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- \_\_\_\_\_ = \_\_\_\_\_ + \_\_\_\_\_
- There are \_\_\_ red counters and \_\_\_ yellow counters. There are \_\_\_ counters altogether. This means that \_\_\_ and \_\_\_ are a bond to \_\_\_

## Key Vocabulary:

- part-whole model
- part
- whole
- greater than
- less than
- equal to
- total
- plus
- add
- number bond



# Maths – Addition and Subtraction

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Complete the table to match the birds.



	 $\_\_\_\_ + \_\_\_\_ = \_\_\_\_$ $\_\_\_\_ = \_\_\_\_ + \_\_\_\_$
$\_\_\_\_$ is a part. $\_\_\_\_$ is a part. The whole is $\_\_\_\_$	

Make up a story to match the part-whole model.

Push 6 beads on a Rekenrek.

Now push 2 more beads.



How many beads have you pushed now?

Complete the number sentence.

$6 + \_\_\_\_ = \_\_\_\_$

Dan has 5 stickers.

Fay has 3 stickers.

How many stickers do they have in total?

How do you know?



## Key Questions:

- How many \_\_\_\_\_ are there?
- How many are there in total?
- What are the parts? What is the whole?
- What is the addition sentence?
- What is \_\_\_ plus \_\_\_?
- How many more have been added?
- How many are there now?
- What is the addition sentence?
- How can you use bonds to help you?

## Stem Sentences:

- \_\_\_\_\_ is a part, \_\_\_\_\_ is a part. The whole is \_\_\_\_\_
- First there were \_\_\_\_\_. Then \_\_\_\_\_ more were added. Now there are \_\_\_\_\_.
- \_\_\_\_\_ plus \_\_\_\_\_ is equal to \_\_\_\_\_
- \_\_\_\_\_ is equal to \_\_\_\_\_ plus \_\_\_\_\_
- \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

## Key Vocabulary:

- part-whole model
- part
- whole
- greater than
- less than
- equal to
- total
- plus
- add
- number bond
- addition sentence





# Maths – Addition and Subtraction

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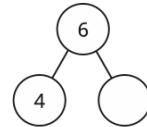
There are 6 apples in a box.

4 of the apples are red.

The rest are green.

How many green apples are there?

Complete the part-whole model and the number sentence.



$4 + \underline{\quad} = 6$

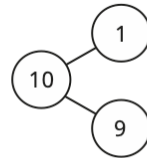
Complete the sentences to find how many ice creams do **not** have flakes.



▶  $6 - 2 = \underline{\quad}$

▶ There are  $\underline{\quad}$  ice creams that do not have flakes.

Here is a part-whole model.



Complete the fact family for the part-whole model.

$\underline{\quad} + \underline{\quad} = 10$        $10 = \underline{\quad} + \underline{\quad}$

$\underline{\quad} + \underline{\quad} = 10$        $10 = \underline{\quad} + \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$        $\underline{\quad} = 10 - \underline{\quad}$

$10 - \underline{\quad} = \underline{\quad}$        $\underline{\quad} = 10 - \underline{\quad}$

## Key Questions:

- What is the whole?
- What is one of the parts?
- What is the other part? How do you know?
- How can you use number bonds to help you?
- What is the addition sentence?
- What is the subtraction sentence?
- What addition sentences can you write?
- What subtraction sentences can you write?
- Can you write them another way?
- How do you know that you have got them all?
- What is the same and what is different about the number sentences?

## Stem Sentences:

- If the whole is  $\underline{\quad}$  and  $\underline{\quad}$  is a part, then the other part is  $\underline{\quad}$
- $\underline{\quad}$  plus  $\underline{\quad}$  is  $\underline{\quad}$
- The bond to  $\underline{\quad}$  for  $\underline{\quad}$  is  $\underline{\quad}$
- $\underline{\quad}$  minus  $\underline{\quad}$  is  $\underline{\quad}$
- $\underline{\quad} - \underline{\quad} = \underline{\quad}$
- $\underline{\quad} = \underline{\quad} - \underline{\quad}$
- I know I have found all the facts, because ...

## Key Vocabulary:

part-whole model  
part  
whole  
greater than  
less than  
equal to  
total  
plus  
add  
subtract  
minus  
number bond  
addition sentence  
subtraction sentence  
fact family

## Small Steps:

1. Introduce parts and wholes
2. Part-whole model
3. Write number sentences
4. Fact families – addition facts
5. Number bonds within 10
6. Systematic number bonds within 10
7. Number bonds to 10
8. Addition - add together
9. Addition – add more
10. Addition problems
11. Find a part
12. Subtraction – find a part
13. Fact families – the eight facts
14. Subtraction – takeaway/cross out
15. Takeaway (How many left?)
16. Subtraction on a number line
17. Add or subtract 1 or 2

Tom has these cakes.



- ▶ Ann has 1 more cake than Tom.  
How many cakes does Ann have?
- ▶ Sam has 1 cake fewer than Tom.  
How many cakes does Sam have?

Complete the sentences to write a story.



- ▶ First there were \_\_\_\_\_ apples.
- ▶ Then \_\_\_\_\_ of the apples were eaten.
- ▶ Now there are \_\_\_\_\_ apples.

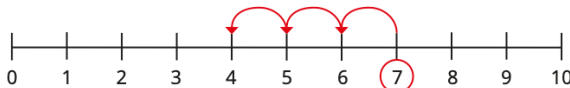
Draw a part-whole model for the story.

Complete the sentences to match the pictures.



- ▶ First there were \_\_\_\_\_ birds in the tree.
- ▶ Then \_\_\_\_\_ of the birds flew away.
- ▶ Now there are \_\_\_\_\_ birds in the tree.
- ▶  $7 - \underline{\quad} = \underline{\quad}$

Mo uses a number line to work out how many birds are left.



- ▶ Why is 7 circled?
- ▶ Why are there 3 jumps?
- ▶ What number do the jumps end on? What does this mean?

## Key Questions:

- How many \_\_\_ are there? How many were taken away? How many are left?
- How many \_\_\_ were there at first? Then what happened? How many \_\_\_ are there now?
- How can you show this in a part-whole model?
- What is the subtraction sentence?
- What number do you need to start from?
- How many jumps back do you need to make? What number do you land on? What does that tell you?
- Why do you not say the number that you are starting on when you count?
- Can you tell a story that matches the number line?
- What is 1 more/less than \_\_\_?
- What is 2 more/less than \_\_\_?
- What is the same about adding/sentencing 1 and adding/subtracting 2? What is different?

## Stem Sentences:

- First there were \_\_\_\_\_. Then \_\_\_\_\_ were taken away. Now there are \_\_\_\_\_
- \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_
- I need to start from \_\_\_\_\_. I need to make \_\_\_\_\_ jumps backwards. I land on \_\_\_\_\_. This means that \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_
- 1 more/less than \_\_\_\_\_ is \_\_\_\_\_
- 2 more/less than \_\_\_\_\_ is \_\_\_\_\_
- To add 2, I can add 1 \_\_\_\_\_ times
- To subtract 2, I can subtract 1 \_\_\_\_\_ times.

## Key

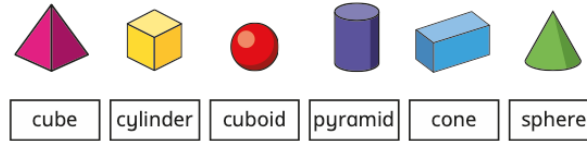
## Vocabulary:

- part-whole model
- part
- whole
- greater than
- less than
- equal to
- total
- plus
- add
- subtract
- minus
- number bond
- addition sentence
- subtraction sentence

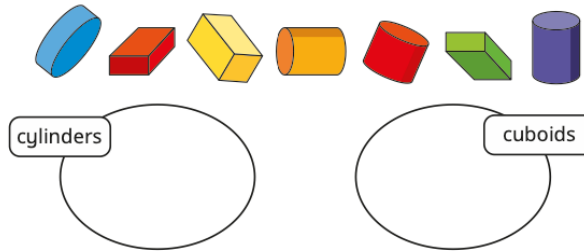
## Small Steps:

1. Recognise and name 3D shapes
2. Sort 3D shapes
3. Recognise and name 2D shapes
4. Sort 2D shapes
5. Patterns with 2D and 3D shapes

Match each shape to its name.

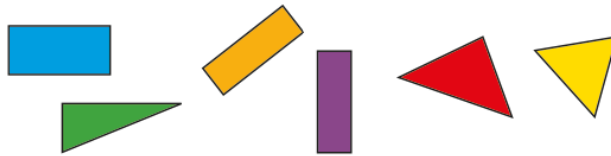


Sort the shapes into the groups.



Which shapes are triangles?

Which shapes are rectangles?



How have the shapes been sorted?



Draw one more shape in each group.

Ben makes a pattern.

He uses 3-D shapes to print 2-D shapes.



Which 3-D shapes can Ben use to continue the pattern?

Use 3-D shapes to make your own print pattern.

## Key Questions:

- What makes a shape 3D?
- What is the name of this 3D shape?
- Does the shape change when you turn it around?
- What does 2D mean?
- What is the difference between a 3D and a 2D shape?
- Describe the difference between a \_\_\_\_\_ and a \_\_\_\_\_
- How have the shapes been sorted?
- What is the same about the shapes? What is different?
- What do the shapes in this group have in common?
- Why is this shape the odd one out?
- Could the shapes have been sorted in a different way?
- What is the order of the shapes in the pattern?
- Can you describe the pattern?
- What shape will be next?

## Stem Sentences:

- The mathematical name of a football is a \_\_\_\_\_
- The mathematical name of a can is a \_\_\_\_\_
- This is a \_\_\_\_\_ because ...
- A \_\_\_\_\_ has flat faces
- A \_\_\_\_\_ has a curved surface
- A \_\_\_\_\_ has both flat faces and curved surfaces
- I know this shape is a \_\_\_\_\_ because ...
- I have sorted the shapes by \_\_\_\_\_
- These shapes are grouped together because ...
- The pattern is made up of \_\_\_\_\_ shapes
- The next shape in the pattern is a \_\_\_\_\_

## Key Vocabulary:

- 2D
- 3D
- side
- face
- curved surface
- circle
- triangle
- quadrilateral
- square
- rectangle
- pentagon
- hexagon
- octagon
- sphere
- cone
- cylinder
- cuboid
- cube
- pyramid
- sort
- group
- pattern
- symmetrical
- repeating



# Maths – Place Value to

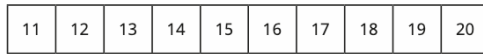
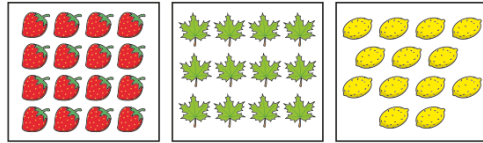
YEAR 1  
Block 4

## 20

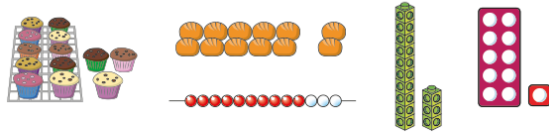
### Small Steps:

- Count within 20
- Understand 10
- Understand 11, 12 and 13
- Understand 14, 15 and 16
- Understand 17, 18 and 19
- Understand 20
- 1 more and 1 less
- The number line to 20
- Use a number line to 20
- Estimate on a number line to 20
- Compare numbers to 20
- Order numbers to 20

Match the pictures to the numbers on the number track.



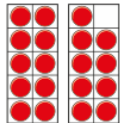
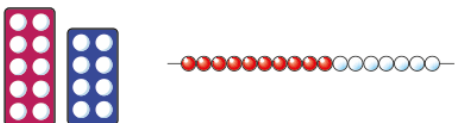
Which pictures show 13?



Complete the table.

Numerals	Word	Picture
14		
	sixteen	

Match the pictures to the numbers.



nineteen

eighteen

seventeen

### Key Questions:

- What number comes after \_\_\_?
- What number comes before \_\_\_?
- Which numbers after 10 do not include “teen”?
- How many ways can you make 10?
- How do you know that you have made 10?
- Which manipulatives can you use to show 10?
- How can you show me 11/12/13 in three different ways?
- What is the same and what is different about 11, 12 and 13?
- How can you show me 14/15/16 in three different ways?
- What is the same and what is different about 14, 15 and 16?
- How can you show me 17/18/19 in three different ways?
- What is the same and what is different about 17, 18 and 19?

### Stem Sentences:

- The ten frame is full, so I know that I have made \_\_\_
- There are \_\_\_ ones in 10
- 11/12/13 has \_\_\_ tens and \_\_\_ ones
- 14/15/16 has \_\_\_ tens and \_\_\_ ones
- 17/18/19 has \_\_\_ tens and \_\_\_ ones
- There are \_\_\_ empty spaces on the ten frame. This means the number shown is \_\_\_

### Key Vocabulary:

- total
- before
- after
- words
- numerals
- group
- bundle
- tens
- ones
- represent
- digit
- tens frame
- number line



# Maths – Place Value to

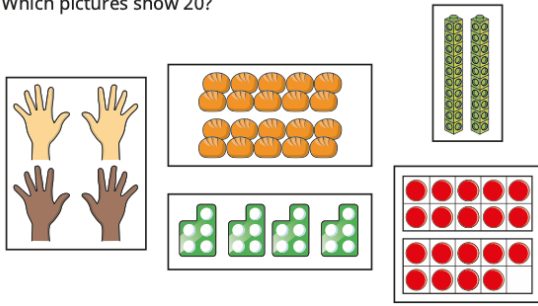
YEAR 1  
Block 4

## 20

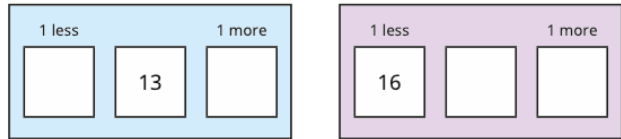
### Small Steps:

1. Count within 20
2. Understand 10
3. Understand 11, 12 and 13
4. Understand 14, 15 and 16
5. Understand 17, 18 and 19
6. Understand 20
7. 1 more and 1 less
8. The number line to 20
9. Use a number line to 20
10. Estimate on a number line to 20
11. Compare numbers to 20
12. Order numbers to 20

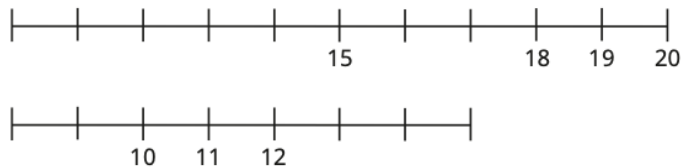
Which pictures show 20?



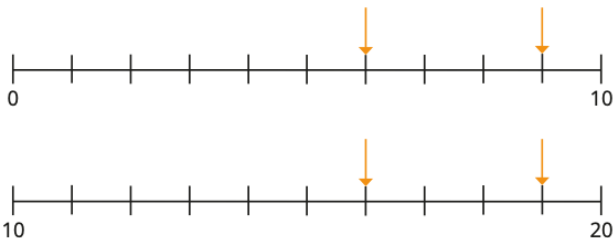
Use base 10 to help you.



Complete the number lines.



What numbers are the arrows pointing to?



### Key Questions:

- How many ways can you make 20?
- How do you know that you have made 20?
- How many ones make 20? How many tens?
- How many pieces of base 10 do you need to make 20?
- How can you show the number \_\_\_?
- How can you find one more? How does this change the number? Which digit changes?
- How can you find one less? How does this change the number? Which digit changes?
- How can you label the number line? How do you know where to put the numbers?
- What does each mark on the number line represent?
- Where does the number line start/end?
- What does each jump on the number line represent?

### Stem Sentences:

- Two ten frames are full, so I know that I have made \_\_\_\_
- There are \_\_\_\_ tens and \_\_\_\_ ones in 20.
- \_\_\_\_ is 1 more than \_\_\_\_
- \_\_\_\_ is 1 less than \_\_\_\_
- 1 more than \_\_\_\_ is \_\_\_\_
- 1 less than \_\_\_\_ is \_\_\_\_
- The first/last number on the number line is \_\_\_\_
- To find one more/one less, I need to...

### Key Vocabulary:

- total
- before
- after
- tens
- ones
- represent
- digit
- tens frame
- number line
- base 10
- 1 more
- 1 less
- equal to



# Maths – Place Value to

## 20

### Small Steps:

- Count within 20
- Understand 10
- Understand 11, 12 and 13
- Understand 14, 15 and 16
- Understand 17, 18 and 19
- Understand 20
- 1 more and 1 less
- The number line to 20
- Use a number line to 20
- Estimate on a number line to 20
- Compare numbers to 20
- Order numbers to 20

Estimate where 4 belongs on the number line.

Estimate where 14 belongs on the number line.

- Circle 13 and 19 on the number line.
- Write **less** or **greater** to compare the numbers.  
13 is \_\_\_\_ than 19      19 is \_\_\_\_ than 13
- Write **<** or **>** to compare the numbers.  
13 ○ 19      19 ○ 13

### Key Questions:

- What does “estimate” mean?
- Can you find halfway?
- Will halfway on the number line always be 5? What if the number line starts at 0 and ends at 20? What number is halfway now?
- When you count from zero, which of the numbers do you say first?
- Which number is greater? How do you know?
- What does each symbol mean?
- Can you tell me a number that is less/greater than \_\_\_\_?
- How do you know that group \_\_\_\_ has the most/fewest?
- How can you show the numbers using cubes or counters?
- Do all the numbers have tens? How does this help?

### Key Vocabulary:

- total
- before
- after
- tens
- ones
- represent
- digit
- tens frame
- number line
- base 10
- 1 more
- 1 less
- greater than
- less than
- equal to
- estimate

### Stem Sentences:

- \_\_\_\_ is halfway along the number line.
- \_\_\_\_ is closer to \_\_\_\_ than \_\_\_\_
- \_\_\_\_ is less than/greater than \_\_\_\_
- \_\_\_\_ is equal to \_\_\_\_
- \_\_\_\_ q/G/= \_\_\_\_
- \_\_\_\_ has \_\_\_\_ ten and \_\_\_\_ ones
- \_\_\_\_ ones is greater/less than \_\_\_\_ ones, so \_\_\_\_ is greater/less than \_\_\_\_
- The greatest/smallest number is \_\_\_\_

Mo, Max and Kim use counters to make numbers.

Mo	
Max	
Kim	

- What numbers have they made?
- Who has made the greatest number? How do you know?
- Who has made the smallest number? How do you know?
- Write the numbers in order.  
Start with the smallest number.





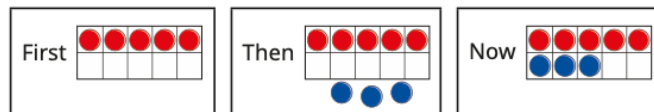
# Maths – Addition and Subtraction (within 20)

YEAR 1  
Block 5

## Small Steps:

1. Add on by counting within 20
2. Add ones using number bonds
3. Find and make number bonds to 20
4. Doubles
5. Near doubles
6. Subtract ones using number bonds
7. Subtraction – counting back
8. Subtraction – finding the difference
9. Related facts
10. Missing number problems

Use ten frames to complete the number story.



First there were \_\_\_\_\_ cars in the car park.

Then \_\_\_\_\_ more cars parked in the car park.

Now there are \_\_\_\_\_ cars in the car park.

$4 + 5 = \underline{\quad}$

$14 + 5 = \underline{\quad}$

$4 + 15 = \underline{\quad}$

Continue the pattern to find all the number bonds to 20

$20 = 20 + 0$

$20 = 19 + 1$

$20 = 18 + 2$

$20 = 17 + 3$

How do you know that you have found them all?

## Key Questions:

- What number did you start with? Then what happened? Now what do you have?
- Is it quicker to add 9 to 4? Or 4 to 9? Is the answer the same?
- How can you use a number line to count on from \_\_\_\_?
- How do the counters show the question?
- How can you use a bar model or a number line to show counting on?
- What is the same and what is different about 4 and 14?
- What do you notice about  $14 + 2$  and  $12 + 4$ ? How many tens are there in each addition? How many ones are there?
- What is the number bond for 5 to 7?
- How many more do you need to make 20?
- How do you know that you have found all the number bonds?
- How does knowing your number bonds to 10 help you work out the number bonds to 20?

## Stem Sentences:

- First, I had \_\_\_\_\_. Then I counted on \_\_\_\_\_. Now I have \_\_\_\_\_.
- To work out \_\_\_\_\_ + \_\_\_\_\_, I will count on from \_\_\_\_\_.
- \_\_\_\_\_ and \_\_\_\_\_ are a number bond to \_\_\_\_\_. So \_\_\_\_\_ and \_\_\_\_\_ are a number bond to \_\_\_\_\_.
- There are \_\_\_\_\_ ones altogether and \_\_\_\_\_ tens, so the total is \_\_\_\_\_.
- I know that \_\_\_\_\_ + \_\_\_\_\_ = 10, so \_\_\_\_\_ + \_\_\_\_\_ = 20.

## Key

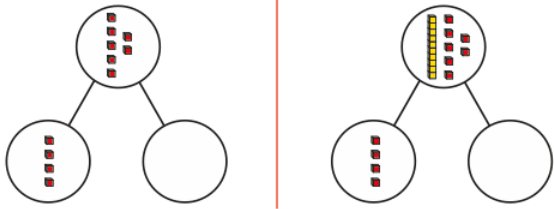
## Vocabulary:

part-whole model  
part  
whole  
equal to  
total  
plus  
add  
bar model  
tens  
ones  
number bonds  
systematic

## Small Steps:

- Add on by counting within 20
- Add ones using number bonds
- Find and make number bonds to 20
- Doubles
- Near doubles
- Subtract ones using number bonds
- Subtraction – counting back
- Subtraction – finding the difference
- Related facts
- Missing number problems

Complete the part-whole models.



Write a subtraction number sentence for each part-whole model.

What do you notice?

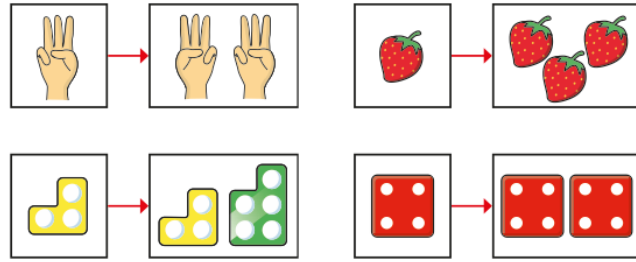
Tiny has 13 stars for being helpful!



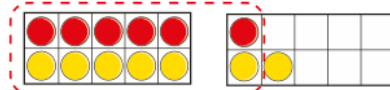
Tiny gives 4 stars to Fay.

How many stars does Tiny have left?

Which pictures show doubles?



Use the counters and ten frames to complete the sentence.



$6 + 7 = \text{double } \underline{\quad} \text{ plus } \underline{\quad}$

## Key Questions:

- How can you sort these pictures into doubles and not doubles?
- How do you know that this shows a double?
- How can you make double \_\_\_?
- What does double \_\_\_ mean?
- What is 1 more than \_\_\_?
- If \_\_\_ is 1 more than \_\_\_, how can you use this to work out \_\_\_ + \_\_\_?
- What are \_\_\_ and \_\_\_ a number bond to?
- What is the same and what is different about 5 and 15?
- How many objects were there at first? Then what happened to the objects? How many objects are there now?
- How does using counters help you?
- How does using a number line help?
- Can you think of another way to show the problem?

## Stem Sentences:

- \_\_\_ is 1 more than \_\_\_, so I can work out double \_\_\_ then add 1
- \_\_\_ is 1 less than \_\_\_, so I can work out double \_\_\_ and then subtract 1
- The number bond for \_\_\_ to \_\_\_ is \_\_\_. So the number bond for \_\_\_ to \_\_\_ is \_\_\_.
- There will be \_\_\_ ones and \_\_\_ tens, so the answer is \_\_\_
- First there were \_\_\_. Then \_\_\_ were taken away. Now, there are \_\_\_.
- \_\_\_ subtract \_\_\_ is equal to \_\_\_

## Key

## Vocabulary:

- part-whole model
- part
- whole
- equal to
- total
- plus
- add
- bar model
- tens
- ones
- number bonds
- systematic



# Maths – Addition and Subtraction (within 20)

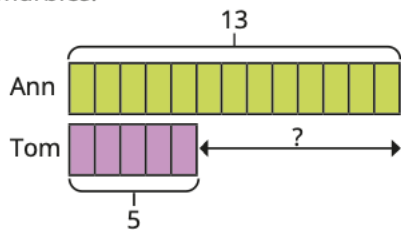
YEAR 1  
Block 5

## Small Steps:

1. Add on by counting within 20
2. Add ones using number bonds
3. Find and make number bonds to 20
4. Doubles
5. Near doubles
6. Subtract ones using number bonds
7. Subtraction – counting back
8. Subtraction – finding the difference
9. Related facts
10. Missing number problems

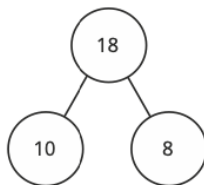
Ann has 13 marbles.

Tom has 5 marbles.



How many more marbles does Ann have than Tom?

Complete the fact family for the part-whole model.



\_\_\_ + \_\_\_ = 18

\_\_\_ = \_\_\_ + \_\_\_

\_\_\_ + \_\_\_ = 18

\_\_\_ = \_\_\_ + \_\_\_

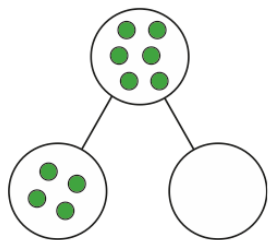
18 - \_\_\_ = \_\_\_

\_\_\_ = \_\_\_ - \_\_\_

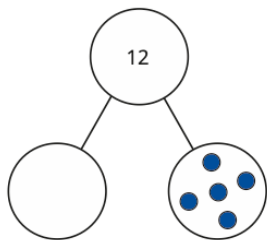
18 - \_\_\_ = \_\_\_

\_\_\_ = \_\_\_ - \_\_\_

Complete the part-whole models and number sentences.



4 + \_\_\_ = 6



\_\_\_ + 5 = 12

## Key Questions:

- Who has more? How do you know? How many more does \_\_\_ have?
- What does “difference” mean?
- What strategy can you use to find the difference?
- What pictures/objects can you use to find the difference?
- How can you complete the sentences?
- What is the same? What is different?
- What addition sentences can you write? What subtraction sentences can you write? Can you write any of them another way?
- If you know that  $12 + 1 = 13$ , what else do you know?
- Can you see any patterns?
- How many counters do you need to add to/subtract from \_\_\_ to get \_\_\_?
- If you know the whole and a part, how can you find the other part?
- Should the missing number be greater than or less than \_\_\_? How do you know?

## Stem Sentences:

- The difference between \_\_\_ and \_\_\_ is \_\_\_
- When finding the difference, I can ...
- \_\_\_ can be done in any order: \_\_\_ cannot be done in any order
- If I know that  $\_\_ + \_\_ = \_\_$ , then I also know that  $\_\_ - \_\_ = \_\_$
- If \_\_\_ is the whole and \_\_\_ is a part, then the other part must be \_\_\_

## Key Vocabulary:

- part-whole model
- part
- whole
- equal to
- total
- plus
- add
- bar model
- tens
- ones
- number bonds
- systematic



# Maths – Place Value (to 50)

YEAR 1  
Block 6

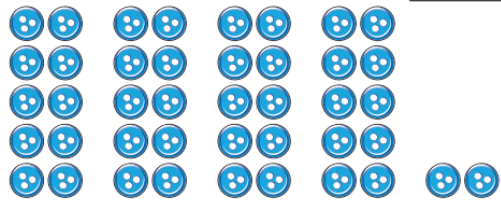
## Small Steps:

- Count from 20 to 50
- 20, 30, 40 and 50
- Count by making groups of tens
- Groups of tens and ones
- Partition into tens and ones
- The number line to 50
- Estimate on a number line to 50
- 1 more, 1 less

40	41	42	43								
----	----	----	----	--	--	--	--	--	--	--	--

32	31	30									
----	----	----	--	--	--	--	--	--	--	--	--

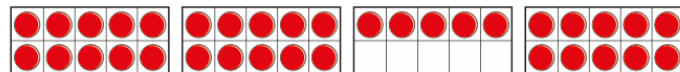
Base 10	Number	How many tens?
		1 ten
	20	2 tens



There are \_\_\_\_\_ groups of ten buttons and \_\_\_\_\_ buttons.

There are \_\_\_\_\_ buttons in total.

How many counters are there?



## Key Questions:

- What number comes next?
- What number comes after \_\_\_?
- Will you say the number \_\_\_ when counting from \_\_\_ to \_\_\_?
- What number comes before \_\_\_?
- Is this a group of ten? How do you know?
- How many ones make 30? How many tens make 30?
- If I have 3 full tens frames, what number has been made?
- How many base 10 pieces make 50?
- How can you make sure that you do not miscount?
- How many groups of ten are there and how many more?
- How many tens are there? How many ones?

## Stem Sentences:

- The number that comes after \_\_\_ is \_\_\_
- The number that comes before \_\_\_ is \_\_\_
- I will/will not say the number \_\_\_, because ...
- \_\_\_ ten frames are full, so I know that I have made \_\_\_
- There are \_\_\_ ones in \_\_\_
- There are \_\_\_ tens in \_\_\_
- \_\_\_ ones = \_\_\_ ten(s)
- There are \_\_\_ groups of 10 and \_\_\_ more. There are \_\_\_ in total.
- I have \_\_\_ tens and \_\_\_ ones. I have \_\_\_ in total.

## Key Vocabulary:

tens  
ones  
more than  
less than  
groups  
base 10  
tens frame

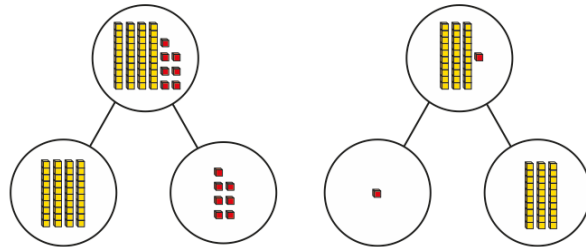


# Maths – Place Value (to 50)

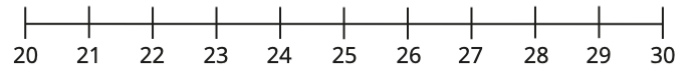
YEAR 1  
Block 6

## Small Steps:

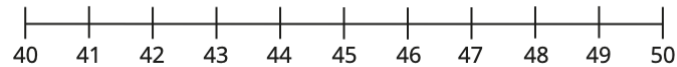
- Count from 20 to 50
- 20, 30, 40 and 50
- Count by making groups of tens
- Groups of tens and ones
- Partition into tens and ones
- The number line to 50
- Estimate on a number line to 50
- 1 more, 1 less



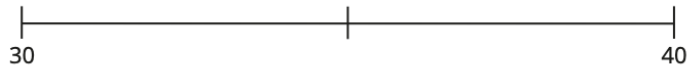
Circle all the numbers on the number line that are less than 23



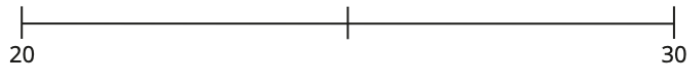
Circle all the numbers on the number line that are greater than 45



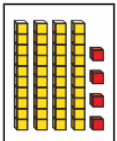
Draw an arrow to 32 on the number line.

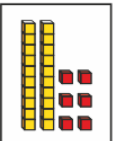


Draw an arrow to 28 on the number line.



Write numbers to fill in the boxes.

1 less   1 more

1 less   1 more

## Key Questions:

- How many tens are there? How many ones? What is the number?
- What is the whole? What are the parts?
- Does it matter which way round you draw the parts?
- Where does the number line start and end?
- Where do the numbers go on a number line?
- How can you use a number line to decide which number is greater/less?
- What does "estimate" mean?
- Can you find halfway on the number line?
- What number is halfway between \_\_\_ and \_\_\_?
- Which two multiples of 10 is \_\_\_ between?
- How can you represent the number \_\_\_?
- How can you find 1 more/1 less? How does this change the number? Which digit changes?

## Stem Sentences:

- I have \_\_\_ tens and \_\_\_ ones. I have \_\_\_ in total.
- \_\_\_ is the whole. \_\_\_ is a part and \_\_\_ is a part.
- The first number on the number line is \_\_\_
- The last number on the number line is \_\_\_
- The number line is going up in \_\_\_
- Halfway is \_\_\_
- \_\_\_ is here on the number line because...
- \_\_\_ is 1 more/1 less than \_\_\_
- 1 more/1 less than \_\_\_ is \_\_\_

## Key Vocabulary:

tens  
ones  
more than  
less than  
groups  
base 10  
tens frame  
part-whole model  
parts  
whole  
number line  
greater  
less  
represent  
digit



# Maths – Length and Height

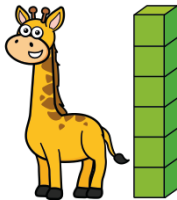
YEAR 1  
Block 7

## Small Steps:

1. Compare lengths and heights
2. Measure length using objects
3. Measure lengths in centimetres



The train is \_\_\_\_\_ paper clips long.



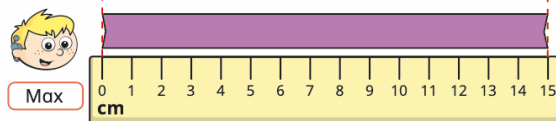
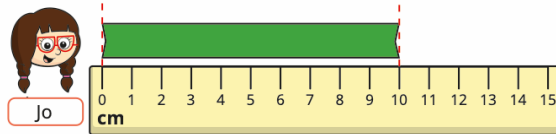
The giraffe is \_\_\_\_\_ cubes tall.

Write **longer** or **shorter** to compare the ribbons.



- ▶ The plain ribbon is \_\_\_\_\_ than the stripy ribbon.
- ▶ The stripy ribbon is \_\_\_\_\_ than the plain ribbon.

Jo, Max and Sam are comparing the lengths of some ribbons.



How long could Sam's ribbon be?

## Key Questions:

- Which object is longer/shorter? How do you know?
- What is the difference between “longer” and “taller”?
- Why is it important that you line the objects up before you compare them?
- Can two different objects have the same length? How do you know?
- What could you use to measure the length/height of this object?
- Why do you have to use objects that are the same size to measure something? What would happen if you chose a different unit to measure the object?
- Where do you need to start/end measuring?
- What does “cm” mean?
- Why is it helpful to have a standard unit of measurement?
- How does using a ruler help you to compare the lengths/heights of objects?

## Stem Sentences:

- \_\_\_\_\_ is longer/taller/shorter than \_\_\_\_\_
- Before I can compare lengths or heights, I need to make sure that ...
- The length/height of the \_\_\_\_\_ is \_\_\_\_\_ cubes.
- The \_\_\_\_\_ is longer/taller/shorter than the \_\_\_\_\_
- The \_\_\_\_\_ is \_\_\_\_\_ cubes longer/shorter than the \_\_\_\_\_
- The \_\_\_\_\_ is \_\_\_\_\_ cm long/tall
- The \_\_\_\_\_ is longer/taller/shorter than the \_\_\_\_\_

## Key Vocabulary:

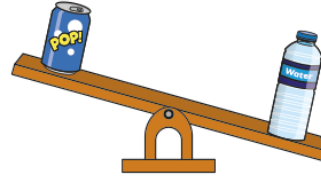
- length
- height
- longer
- taller
- shorter
- measure
- difference
- standard unit
- centimetre
- cm



## Small Steps:

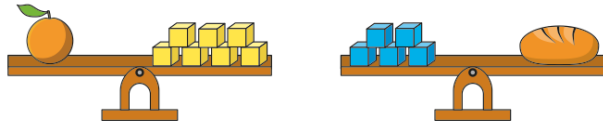
1. Heavier and lighter
2. Measure mass
3. Compare mass
4. Full and empty
5. Compare volume
6. Measure capacity
7. Compare capacity

Write **heavier** or **lighter** to complete the sentence.



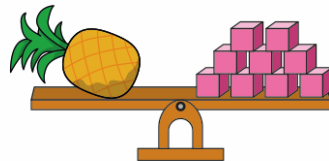
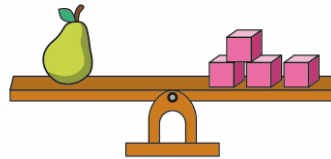
The bottle is \_\_\_\_\_ than the can.

What is the mass of each object?



The mass of the \_\_\_\_\_ is \_\_\_\_\_ cubes.

An apple is heavier than the pear, but lighter than the pineapple.



What could the mass of the apple be?

## Key Questions:

- Which object do you think is heavier/lighter?
- How can you show which object is heavier/lighter?
- Are large objects always heavier than small objects? How do you know?
- How does the balance scale show which object is heavier?
- If two objects are the same size and shape, does that mean they have the same mass? How do you know?
- What does it mean if the scales are balanced?
- What is the mass of the \_\_\_\_\_ in cubes?
- Why do you need to use the same unit to measure the masses of the objects?

## Stem Sentences:

- The \_\_\_\_\_ is heavier/lighter/equal to than the \_\_\_\_\_
- I know which object is heavier/lighter because...
- The mass of the \_\_\_\_\_ is the same as the mass of \_\_\_\_\_ cubes.

## Key Vocabulary:

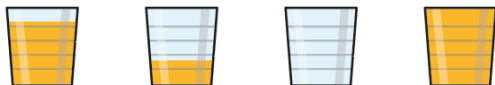
mass  
measure  
heavier  
lighter  
balance scales  
greater than  
less than  
equal to  
unit

## Small Steps:

1. Heavier and lighter
2. Measure mass
3. Compare mass
4. Full and empty
5. Compare volume
6. Measure capacity
7. Compare capacity

Choose words to complete the sentence about each glass.

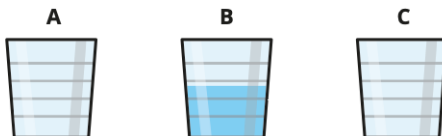
empty    nearly empty    nearly full    full



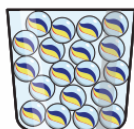
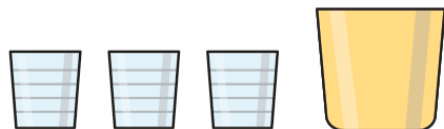
Glass A has more water than glass B.

Glass C has less water than glass B.

Show the volume of water that could be in glasses A and C.



Mo and Sam are measuring the capacity of a jar.



The jar has a capacity of 3 cups of sand.

Mo

The jar has a capacity of 19 marbles.

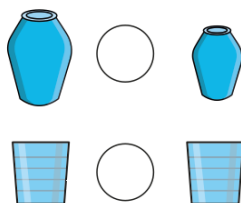


Sam

Who has used a more accurate measurement?

How do you know?

Write < , > or = to compare the capacities of the containers.



## Key Questions:

- What does "empty"/"nearly empty"/"nearly full"/"full" mean?
- How can you order the volumes from greatest to smallest?
- What do you know about two glasses that are the same height, but one is wider than the other?
- How can you measure how much liquid fills this container?
- Will the cubes/marbles are smaller, will it take more or fewer cubes/marbles to fill the container than larger ones?
- What can you use to measure the capacities of the containers?
- Which container has the greater capacity? How do you know?

## Stem Sentences:

- Glass A has \_\_\_ water than glass B
- I know that there is \_\_\_ water in glass \_\_\_ because ...
- \_\_\_ cubes are needed to fill the container
- The capacity of the container is \_\_\_ cups of water.
- I know that container A has a \_\_\_ capacity because...
- I need to use the same unit of measurement because...

## Key Vocabulary:

capacity  
volume  
empty  
nearly empty  
full  
nearly full  
greater than  
less than  
equal to  
unit