Unit focus: Magic and Mystery
Text focus: Narrative (910L)

STAGE 5

The Stone People

Who were the stone people? Where had they come from? Would they ever leave? We all had questions, the day they arrived, stomping over the distant hills, their porcelain joints scraping and grinding.

I remember I was doing nothing more interesting than eating a breakfast of marmalade on toast when the news broke on the wireless. The scratchy, broken voice of the anchor somehow seemed suddenly louder than before. The chilling news of our impending invasion, an unwelcome intrusion into my morning routine.

At the time, I wasn't scared. I was barely 10 and full of the invincibility that comes naturally at that age. These seemed like nothing more than a grand adventure waiting to be had. Nevertheless, I remember listening intently, my ear pressed against the warm gauze of the speaker. My older brother tried to wrestle me away, but our mother hushed him into silence.

"Here at Station 42, it is our understanding that these rocky rebels currently pose no threat to us. We estimate that there are two dozen in total and that they will be within the town inside an hour."

The rest of the show was to be filled with so-called "experts" discussing whether this was a political attack, and so I raced out of the house and grabbed my bike. There was only one place to cycle to, and judging by the tide of other children, all flowing in the same direction, we'd all had the same thought.

Our town sits in a bowl at the foot of tree-lined hills, so we had a perfect view of the summits as we headed out of the town along the main road. We'd been riding for maybe half an hour when we saw the formidable silhouettes crest the hills. Once they were all lined up along the ridge, they stopped, their arms dropped to their sides, and they stood still.

Another ten minutes' ride on our bikes and we were at their feet. They made no movement. Their eyes remained fixed on a point somewhere in the distance. One of the others tried to swing one of

the arms, but it wouldn't budge.

Up close, it was more obvious that they were made from the same reddish clay that we'd used in pottery class. These weren't stone creatures thrown up by the landscape; these were golems, hand-crafted by men centuries ago. I remembered reading about an army of them built in China long ago. These were covered in fine detail, expertly crafted. But there were signs of wear. Cracks had formed on the surface, giving each one a unique network of scars. Moss and lichen had started to take hold in crevices.

We played on the golems for hours that day, until eventually, one by one, we were dragged home by our parents. We went back the next day, and the day after that, to see if they would move. But they never did.

I'm an old man now. I've travelled the world many times and seen many strange things. Every time I return, I come back to this town. In all my years, I've yet to witness anything as mysterious as the day the stone people came. And in all that time, I've yet to see them move.

They just stand watching, guarding over us. Against what? We'll never know.

RETRIEVAL FOCUS

1. How old was the author at the time?
2. How many stone people are there?
3. How long does the news reporter think it will be before they are inside the town?
4. Where had the author read about similar golems being built?
5. What gave the impression of scars on the golems?

VIPERS QUESTIONS

I How does the author feel about the experts called in to discuss the matter? How do you know?

V What does the word "formidable" tell you about their first impression of the stone people?

S What do we know about the age of the golems? How does the author give us this information?

S Why was it handy that the town was in a bowl at the foot of the hills?

P What would you do if an army of stone people turned up outside your village? What would you have the council do?

Answers:

1. 10
2. Two dozen/24
3. An hour
4. China
5. The cracks on the surface

I: The author thinks they are not to be trusted. They are referred to as so-called and experts is in inverted commas.

V: They were tall and impressive, scary etc

S: They are old and starting to fall apart. The author uses description of the cracks and moss and lichen to tell us this

S: It allowed the children to see the golems appearing over the hill

Sentence Draw

I can suggest different meanings a sentence could have.

Can you show the huge difference one comma makes to the meaning of these sentences by illustrating each version or explaining the difference in words? Use colour in your illustrations!

Slow children crossing!	Slow, children crossing!

Eat Daniel!	Eat, Daniel!

Look at that blue, bearded man.	Look at that blue bearded man.

Sentence Draw

I can suggest different meanings a sentence could have.

Can you show the huge difference one comma makes to the meaning of these sentences by illustrating each version or explaining the difference in words? Use colour in your illustrations!

Most of the time travellers take the bus.	Most of the time, travellers take the bus.

Edward tickled the boy with a bunch of carrots.	Edward tickled the boy, with a bunch of carrots.

Now blow up the pipe!	Now blow, up the pipe!

Make Two Meanings

I can use commas to give a sentence two different meanings.

Can you use commas in the following sentences to ensure there are two different ways to read them? Some sentences may just need to be left without commas.

1. The view I imagined was amazing.

   The view I imagined was amazing.

2. When the lightning turned incredibly bright yellow people began to get scared.

   When the lightning turned incredibly bright yellow people began to get scared.

3. The girl who didn't like spiders was terrified.

   The girl who didn't like spiders was terrified.

4. He brought home some old folders and a donut which he ate as soon as he got hungry.

   He brought home some old folders and a donut which he ate as soon as he got hungry.

5. Hurry up and shoot grandad.

   Hurry up and shoot grandad.

6. David said the astronaut was scared.

   David said the astronaut was scared.

7. When she's not working she loves eating her dog and her family.

   When she's not working she loves eating her dog and her family.

8. She found to her horror films were boring.

   She found to her horror films were boring.

9. Compared to a giant star wars seemed so tiny and small.

   Compared to a giant star wars seemed so tiny and small.

10. All the time machines were getting more intelligent and powerful.

    All the time machines were getting more intelligent and powerful.

Using Commas to Clarify Meaning

Answers

Can you use commas in the following sentences to ensure there are two different ways to read them? Some sentences may just need to be left without commas.

1. The view I imagined was amazing.
   The view, I imagined, was amazing.
2. When the lightning turned incredibly bright yellow, people began to get scared.
   When the lightning turned incredibly bright, yellow people began to get scared.
3. The girl who didn't like spiders was terrified.
   The girl, who didn't like spiders, was terrified.
4. He brought home some old folders, and a donut which he ate as soon as he got hungry.
   He brought home some old folders and a donut, which he ate as soon as he got hungry.
5. Hurry up and shoot, grandad.
   Hurry up and shoot grandad.
6. David, said the astronaut, was scared.
   David said the astronaut was scared.
7. When she's not working she loves eating her dog and her family.
   When she's not working she loves eating, her dog, and her family.
8. She found to her horror, films were boring.
   She found to her, horror films were boring.
9. Compared to a giant, star wars seemed so tiny and small.
   Compared to a giant star, wars seemed so tiny and small.
10. All the time machines were getting more intelligent and powerful.
    All the time, machines were getting more intelligent and powerful.

Adding Commas

I can add commas to clarify the meaning of a sentence.

Read the sentences as an editor and decide if you think commas need to be added. If you decide to add commas, explain your reason for doing so.

Sentence	**Explain your reason for adding commas or leaving the sentence as it is.**
The rabbit had long sharp pointy teeth.	
As the campers sat round the fire eating the bear stayed in the bushes.	
Lucy wanted a biscuit but she couldn't have one.	
David who was 10 wore glasses.	
Hetty dressed and performed for the packed audience.	
There was lots to do at the fair including face painting and a raffle.	
While the onions were cooking soup was brought from the shop.	
If you have got everything you need then we are ready to go!	
Hanging out the washing is one of the most boring things in the world.	
He was cold without his jacket even though the sun was shining.	

Adding Commas

I can add commas to clarify the meaning of a sentence.

Read the sentences as an editor and decide if you think commas need to be added. If you decide to add commas, explain your reason for doing so.

Sentence	**Explain your reason for adding commas or leaving the sentence as it is.**
The rabbit had long sharp pointy teeth.	
While the campers sat round the fire eating the bear crouched just metres away in the bushes.	
Lucy wanted a biscuit but she couldn't have one.	
David who was in year six had lots to say about most subjects.	
Hetty dressed and performed for the packed audience.	
There were a lot of different activities at the fair including face painting and a raffle.	
At the same time as the onions were cooking soup was being bought from the shop.	
If you have got everything you need then we are ready to go!	
Hanging out washing is one of the most boring things in the world.	
He was cold without his jacket even though the sun was shining.	

Using Commas to Clarify Meaning

Answers

Read the sentences as an editor and decide if you think commas need to be added. If you decide to add commas, explain your reason for doing so.

Sentence	Explain your reason for adding commas or leaving the sentence as it is.
The rabbit had long, sharp, pointy teeth.	*Commas do not change or clarify the meaning in this sentence so there is no correct answer. Commas can be added to provide the reader with mini pauses or left out altogether at the discretion of the author.*
As the campers sat round the fire eating, the bear stayed in the bushes.	*A comma is needed here to separate the subordinate clause from the main clause and to make it clear that the campers are not eating the bear!*
Lucy wanted a biscuit, but she couldn't have one.	*In a compound sentence like this, a comma is often used before the conjunction, but it can be written without.*
David, who was 10, wore glasses.	*Commas are needed here to surround the embedded clause so that the sentence is read correctly.*
Hetty dressed, and performed for the packed audience.	*The comma in this sentence clarifies the meaning. Without it, it sounds as though Hetty getting dressed is part of the show!*
There was lots to do at the fair, including face painting and a raffle.	*Although this sentence is correct without a comma, using a comma to signify adding additional information seems to help it read with an extra focus on the individual examples of activity.*
While the onions were cooking, soup was bought from the shop.	*A commas is needed in this complex sentence to divide the opening subordinate clause from the main clause to avoid confusion – the onions are not cooking soup!*
If you have got everything you need, then we are ready to go!	*A comma is needed here to separate the opening subordinate clause from the main clause in this complex sentence. There are two places where the comma could go and each of them would contribute a slightly different meaning to the sentence. The second one suggests that it has taken some time to get everything together!*
Hanging out the washing is one of the most boring things in the world.	*This is just a simple sentence which does not require commas – no ambiguity and no further clarification necessary.*
He was cold without his jacket even though the sun was shining.	*This sentence doesn't need a comma to clarify meaning.*

Using Commas to Clarify Meaning

Answers

Read the sentences as an editor and decide if you think commas need to be added. If you decide to add commas, explain your reason for doing so.

In these case there may be no clear correct answer but the matter of including commas or not is a suggestion and open to debate and discussion.

Sentence	Explain your reason for adding commas or leaving the sentence as it is.
The rabbit had long, sharp, pointy teeth.	*Commas do not change or clarify the meaning in this sentence so there is no correct answer. Commas can be added to provide the reader with mini pauses or left out altogether at the discretion of the author.*
Whilst the campers sat round the fire eating, the bear crouched just metres away in the bushes.	*A comma is needed here to separate the subordinate clause from the main clause and to make it clear that the campers are not eating the bear!*
Lucy wanted a biscuit, but she wasn't allowed to have one.	*In a compound sentence like this, a comma is often used before the conjunction, but it can be written without.*
David, who was in year six, had lots to say on most subjects.	*Commas are needed here to surround the embedded clause so that the sentence is read correctly.*
Hetty dressed, and performed for the packed audience.	*The comma in this sentence clarifies the meaning. Without it, it sounds as though Hetty getting dressed is part of the show!*
There were a lot of different activities at the fair, including face painting and a raffle.	*Although this sentence is correct without a comma, using a comma to signify adding additional information seems to help it read with an extra focus on the individual examples of activity.*
At the same time the onions were cooking, soup was being bought from the shop.	*A commas is needed in this complex sentence to divide the opening subordinate clause from the main clause to avoid confusion – the onions are not cooking soup!*
If you have got everything you need, then we are ready to go!	*A comma is needed here to separate the opening subordinate clause from the main clause in this complex sentence. There are two places where the comma could go and each of them would contribute a slightly different meaning to the sentence. The second one suggests that it has taken some time to get everything together!*
Hanging out the washing is one of the most boring things in the world.	*This is just a simple sentence which does not require commas – no ambiguity and no further clarification necessary.*
He was cold without his jacket even though the sun was shining.	*This sentence doesn't need a comma to clarify meaning.*

S.P.O.O.C.S Thesaurus

Using the words in the table below, create an illustrated thesaurus which details the word meaning and synonyms that could be used. The words need to be rearranged and placed in alphabetical order.

As a challenge s can you add any further vocabulary that would suit our 'S.P.O.O.C.S Thesaurus.'?

atmosphere	magical	enclosed	fear	tense
ominous	dusky	apprehensive	isolated	explore
search	startle	gasp	dim	creepy
gloom	examine	wary	famous	intrigue

Word	Definition	Illustration	Synonyms

Woodcutter's Log Book

Monday 17th November 2009

At 8a.m. sharp, I arrived at Acorns Woodland Centre to start my shift. As required, I began by checking and sharpening my axe and saw. Then, taking my tools, map and torch I set off for Dark Copse.

At 9a.m. precisely I arrived at the Copse and set about clearing the undergrowth. As I cut back the tangled brambles, I noticed some very large paw prints. Instantly I recognised them. They had been made by one of the most wanted storybook animals, the legendary B.B. Wolfe. So, I decided to follow his tracks.

After a wearying two hours following Mr. Wolfe's trail, I had failed to find him. Following a brief rest, I continued my hunt.

At 3.30p.m., I found myself on the far side of Acorn Woods and I knew that it would soon be dark. I decided therefore to return to the Woodland Centre.

I am very disappointed that I was unable to track down B.B. Wolfe. However, I intend to make every effort to do so when I next have the opportunity in order to rid Acorn Woods of this ferocious creature.

"A Failed Attempt"

Email from head of S.P.O.O.C.S – FOR YOUR URGENT ATTENTION.

Dear Ghost Hunters

I was disappointed to learn that you were unable to capture the ghosts that continue to haunt the grounds of the Tudor House. Please ensure that you have logged the exact reasons as to why this has happened in your log book.

What went wrong – was it the temperature? Did you have the correct kit? How long did you wait before leaving the mansion? What were the lighting and sound conditions at the time?

Report back by the end of the day.
From

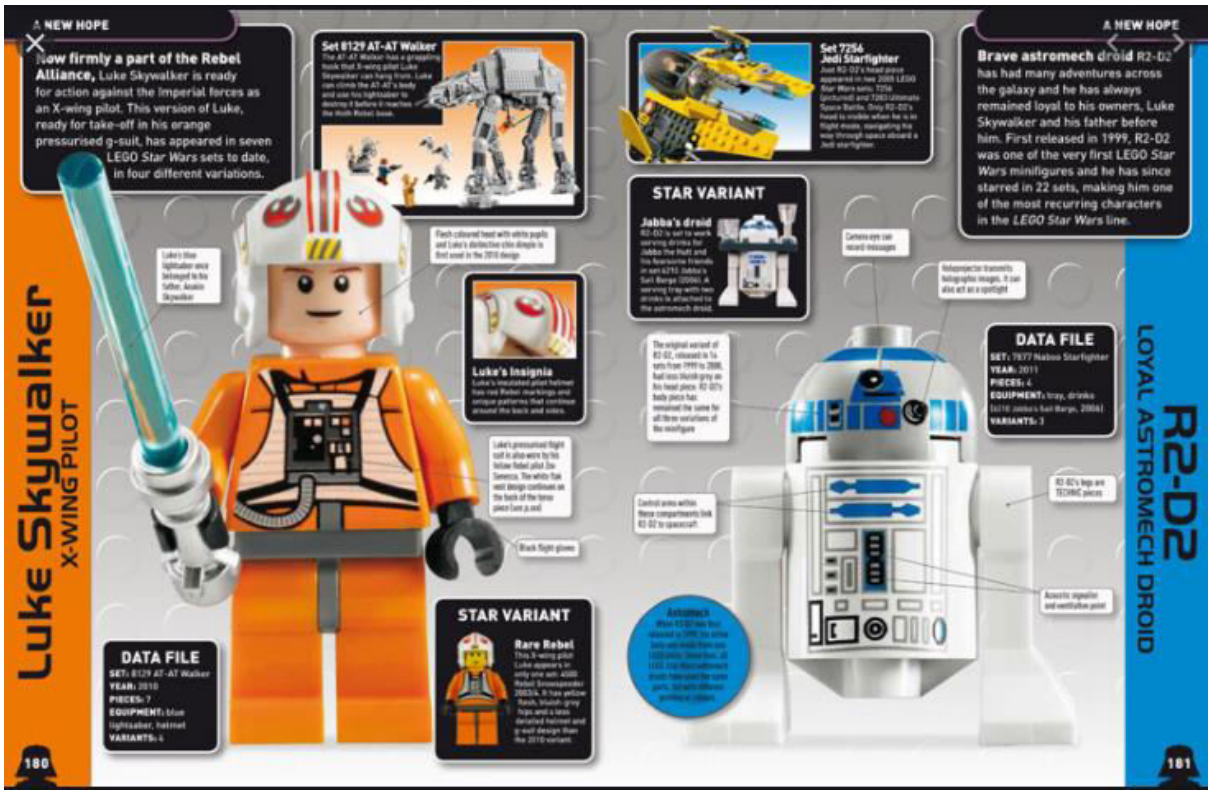
Mr Goole

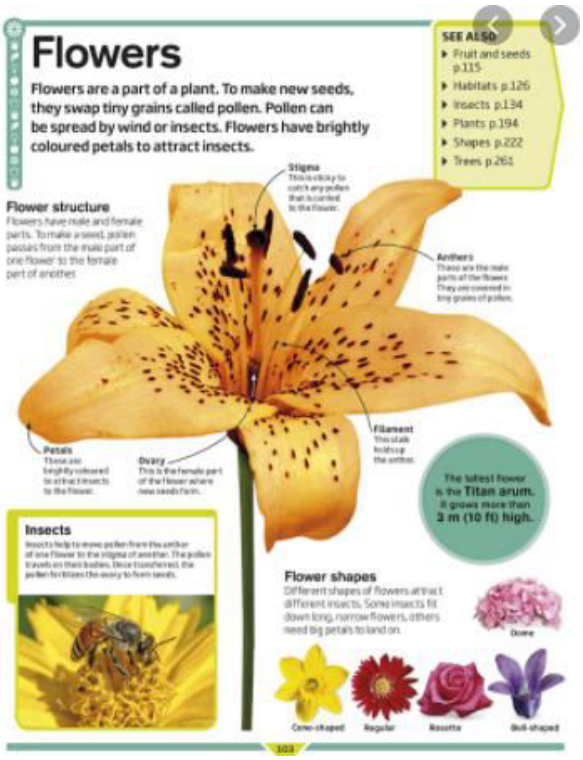
Log Book

Date:

Examples of Encyclopaedia Pages

Looking at the texts, what features do you notice are the same? How will this help you plan and write your own page for a 'Ghosts and Ghouls Encyclopaedia'?





Ghost and Ghouls Encyclopaedia

Decimals up to 2 d.p.

1 What number is represented on the place value chart?

Ones	Tenths	Hundredths
	0.1 0.1	0.01 0.01 0.01
0	2	3

Complete the sentences.

There are ☐ ones, ☐ tenths and ☐ hundredths.

The number is ☐.

2 Represent these numbers on a place value chart.

Complete the sentences.

a) 0.56

There are ☐ ones, ☐ tenths and ☐ hundredths.

b) 0.08

There are ☐ ones, ☐ tenths and ☐ hundredths.

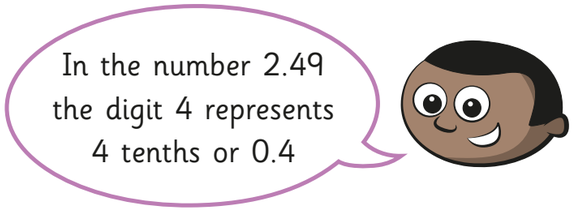
c) 1.48

There is ☐ one, ☐ tenths and ☐ hundredths.

d) 2.07

There are ☐ ones, ☐ tenths and ☐ hundredths.

3 Mo is thinking about tenths and hundredths.



What is the value of the digit 4 in each of these numbers?

a) 14.8 _____ **d)** 42.03 _____

b) 13.74 _____ **e)** 106.48 _____

c) 8.04 _____ **f)** 176.4 _____

4 **a)** Circle the number that has 5 in the tenths position.

53 **5.3** **0.53** **0.35**

b) Write three numbers that have 3 in the hundredths position.

_____

5 Complete the calculations.

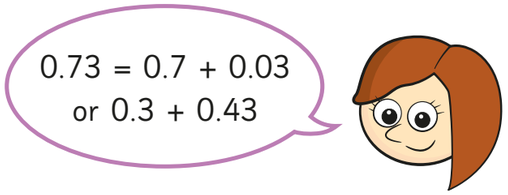
a) 0.64 = 0.6 + ☐

b) 0.53 = 0.5 + ☐

c) 0.3 + 0.05 = ☐

d) 0.06 + 0.8 = ☐

6 Rosie is finding different ways to partition 0.73

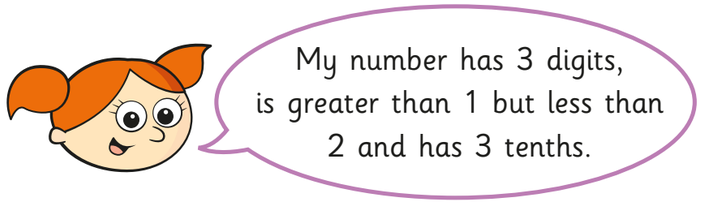


Ones	Tenths	Hundredths
0	7	3

In what other ways can 0.73 be partitioned?

List as many ways as you can below.

7 Alex is thinking of a number.



a) What number could Alex be thinking of?
Talk about it with a partner.

b) Write all the possible numbers Alex could be thinking of.

c) Write another clue that would mean Alex's number is 1.34

8 Match the words to the numerals.

5 ones, 6 tenths and 5 hundredths	0.56
5 tenths and 6 hundredths	60.05
5 ones, 5 tenths and 6 hundredths	5.56
6 tens and 5 hundredths	5.65

9 Annie has three digit cards.

0	2	5

Are the statements true or false? Explain your answers.

a) The largest number Annie can make is 5.02

b) The smallest number Annie can make is 0.25

c) Annie can make six different numbers.

Decimals up to 2 d.p.

1 What number is represented on the place value chart?

Ones	Tenths	Hundredths
	0.1 0.1	0.01 0.01 0.01
0	2	3

Complete the sentences.

There are [0] ones, [2] tenths and [3] hundredths.

The number is [0·23].

2 Represent these numbers on a place value chart.

Complete the sentences.

a) 0.56

There are [0] ones, [5] tenths and [6] hundredths.

b) 0.08

There are [0] ones, [0] tenths and [8] hundredths.

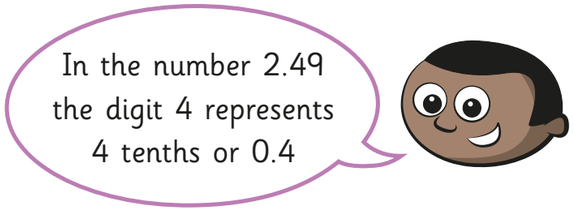
c) 1.48

There are [1] ones, [4] tenths and [8] hundredths.

d) 2.07

There are [2] ones, [0] tenths and [7] hundredths.

3 Mo is thinking about tenths and hundredths.



What is the value of the digit 4 in each of these numbers?

a) 14.8 4 ones

b) 13.74 4 hundredths

c) 8.04 4 hundredths

d) 42.03 4 tens

e) 106.48 4 tenths

f) 176.4 4 tenths

4 **a)** Circle the number that has 5 in the tenths position.

53 **5.3** **0.53** **0.35**

b) Write three numbers that have 3 in the hundredths position.

eg. 0·03 4·53 72·03

5 Complete the calculations.

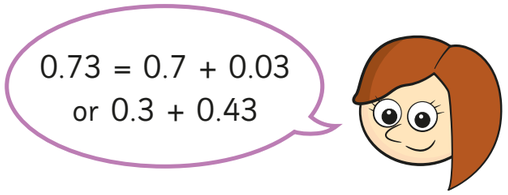
a) 0.64 = 0.6 + [0·04]

b) 0.53 = 0.5 + [0·03]

c) 0.3 + 0.05 = [0·35]

d) 0.06 + 0.8 = [0·86]

6 Rosie is finding different ways to partition 0.73



Ones	Tenths	Hundredths
0	7	3

In what other ways can 0.73 be partitioned?

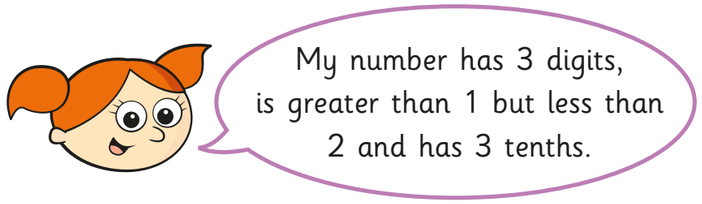
List as many ways as you can below.

0·1 + 0·63 0·5 + 0·23

0·2 + 0·53 0·6 + 0·13

0·4 + 0·33

7 Alex is thinking of a number.



a) What number could Alex be thinking of?
Talk about it with a partner.

b) Write all the possible numbers Alex could be thinking of.

1·30, 1·31, 1·32, 1·33, 1·34, 1·35, 1·36, 1·37, 1·38, 1·39

c) Write another clue that would mean Alex's number is 1.34

It has 4 hundredths.

8 Match the words to the numerals.

5 ones, 6 tenths and 5 hundredths	0.56
5 tenths and 6 hundredths	60.05
5 ones, 5 tenths and 6 hundredths	5.56
6 tens and 5 hundredths	5.65

9 Annie has three digit cards.

0	2	5

Are the statements true or false? Explain your answers.

a) The largest number Annie can make is 5.02

False 5·20 > 5·02

b) The smallest number Annie can make is 0.25

True

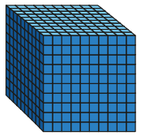
c) Annie can make six different numbers.

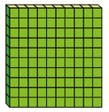
0·25 0·52 2·05 2·50 5·02 5·20

True

Understand thousandths

1 Tommy is using base 10 to represent decimals.

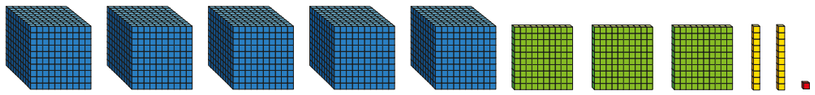
He uses  to represent 1 whole.

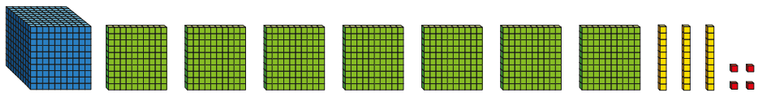
He uses  to represent $\frac{1}{10}$ or 0.1

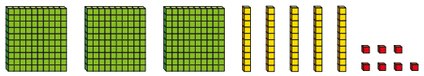
He uses to represent $\frac{1}{100}$ or 0.01

He uses to represent $\frac{1}{1000}$ or 0.001

What decimals are represented?

a) 

b) 

c) 

2 **a)** Represent each number using base 10

0.512 1.352 2.003

b) Use your representations to help you complete the statements.

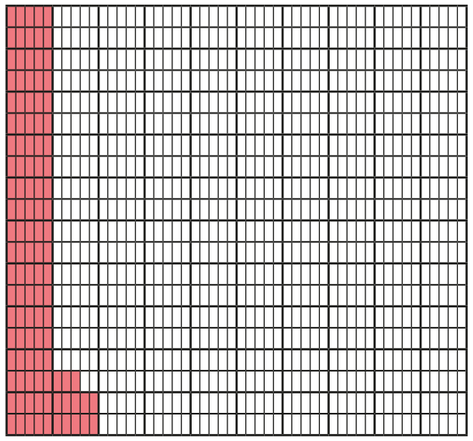
0.512 = 0.5 + 0.01 + ☐

1.352 = 1 + ☐ + ☐ + ☐

2.003 = _____

3 Here is a thousand square.

Part of the square has been coloured.



a) Why do you think it is called a thousand square?

_____

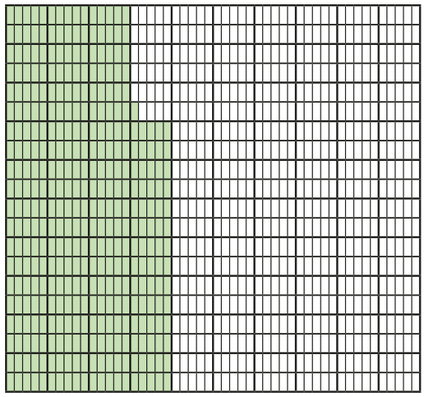
b) What fraction of the square has been coloured? $\frac{\square}{1000}$

c) Write the fraction as a decimal. ☐

4 What fraction of each square has been shaded?

Write each number as a fraction and as a decimal.

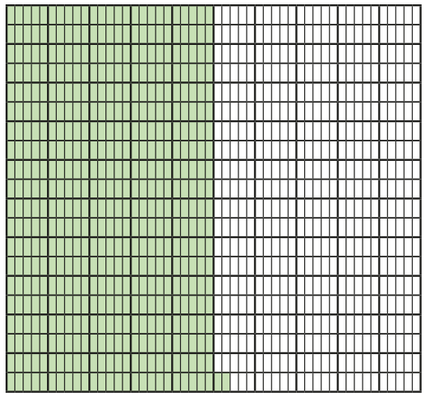
a)



fraction = ☐

decimal = ☐

b)

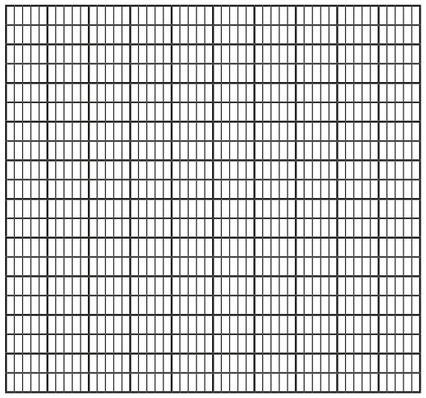


fraction = ☐

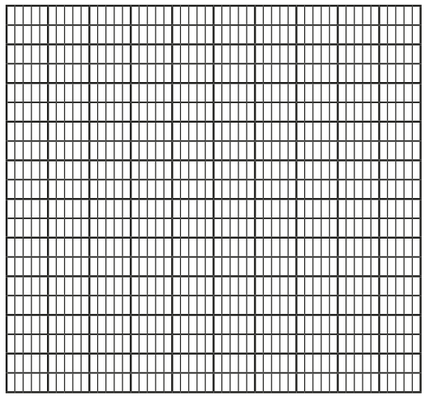
decimal = ☐

5 Colour the grids to represent the fraction and decimal.

a) $\frac{73}{1000}$



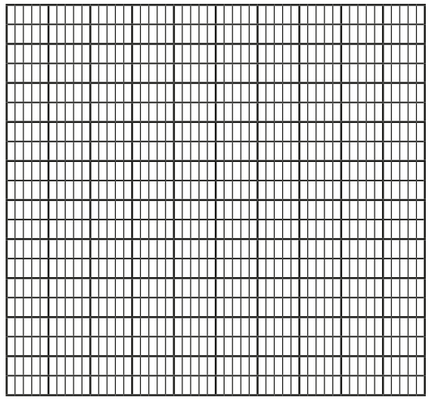
b) 0.302



6 Represent these numbers on a place value chart.

a) 1.372 **b)** 0.091 **c)** 3.542

7 Show that $\frac{400}{1000}$ is the same as 0.4



8 Write the numbers represented by the place value charts.

a)

Ones	Tenths	Hundredths	Thousandths
1 1 1 1	0.1 0.1	0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.001 0.001 0.001 0.001 0.001 0.001

☐

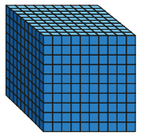
b)

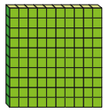
Ones	Tenths	Hundredths	Thousandths
	0.1 0.1 0.1 0.1 0.1		0.001 0.001 0.001 0.001

☐

Understand thousandths

1 Tommy is using base 10 to represent decimals.

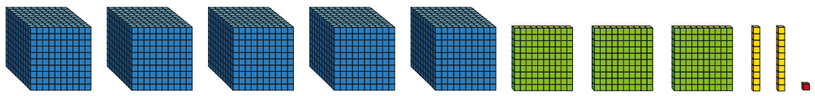
He uses  to represent 1 whole.

He uses  to represent $\frac{1}{10}$ or 0.1

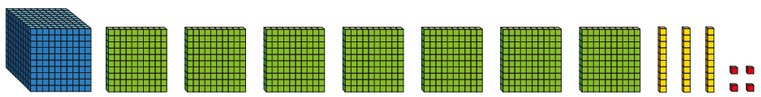
He uses to represent $\frac{1}{100}$ or 0.01

He uses to represent $\frac{1}{1000}$ or 0.0**01**

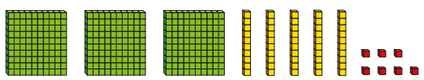
What decimals are represented?

a) 

5.321

b) 

1.734

c) 

0.357

2 **a)** Represent each number using base 10

0.512 1.352 2.003

b) Use your representations to help you complete the statements.

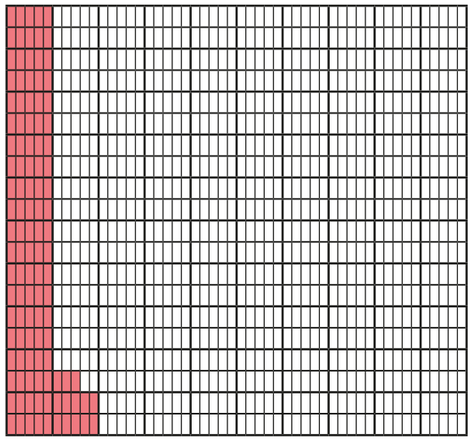
0.512 = 0.5 + 0.01 + 0.002

1.352 = 1 + 0.3 + 0.05 + 0.002

2.003 = 2 + 0.003

3 Here is a thousand square.

Part of the square has been coloured.



a) Why do you think it is called a thousand square?

It's split into a thousand parts.

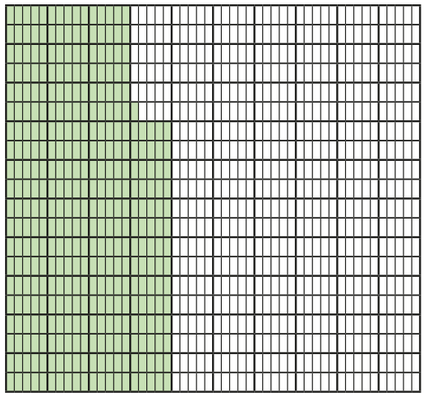
b) What fraction of the square has been coloured? $\frac{113}{1000}$

c) Write the fraction as a decimal. 0.113

4 What fraction of each square has been shaded?

Write each number as a fraction and as a decimal.

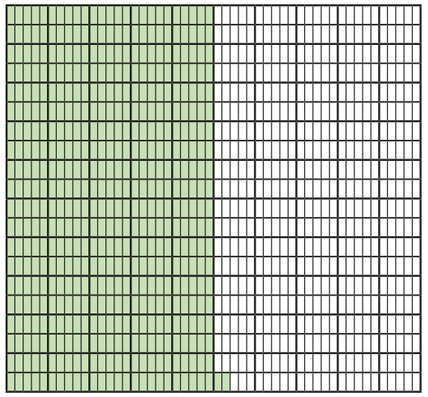
a)



fraction = $\frac{371}{1000}$

decimal = 0·371

b)

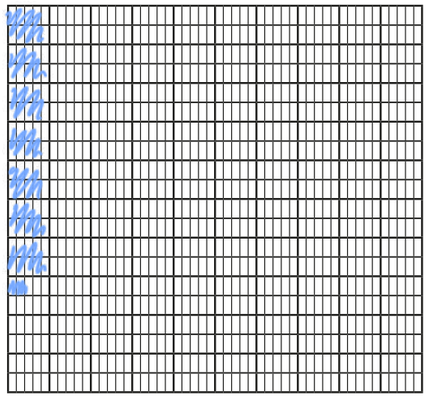


fraction = $\frac{502}{1000}$

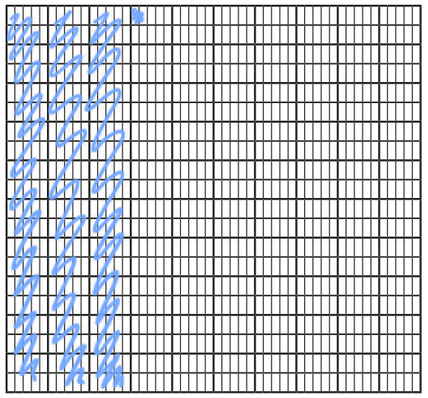
decimal = 0·502

5 Colour the grids to represent the fraction and decimal.

a) $\frac{73}{1000}$



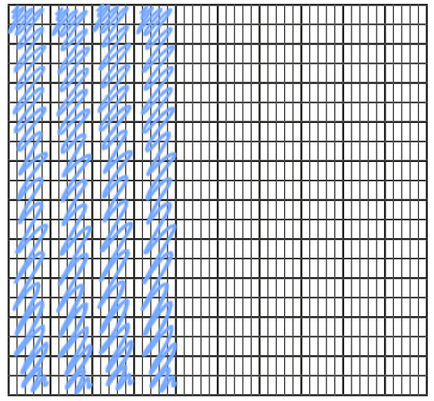
b) 0.302



6 Represent these numbers on a place value chart.

a) 1.372 **b)** 0.091 **c)** 3.542

7 Show that $\frac{400}{1000}$ is the same as 0.4



8 Write the numbers represented by the place value charts.

a)

Ones	Tenths	Hundredths	Thousandths
1 1 1 1	0.1 0.1	0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.001 0.001 0.001 0.001 0.001 0.001

4·276

b)

Ones	Tenths	Hundredths	Thousandths
	0.1 0.1 0.1 0.1 0.1		0.001 0.001 0.001 0.001

0·504

Three decimal places

1 Use place value counters to make the numbers.

Draw your answers.

a) 1.343

T	O •	Tth	Hth	Thth

b) 16.052

T	O •	Tth	Hth	Thth

c) 7.001

T	O •	Tth	Hth	Thth

d) 70.01

T	O •	Tth	Hth	Thth

2 Complete the sentences.

O •	Tth	Hth	Thth

There are ☐ ones.

There are ☐ tenths.

There are ☐ hundredths.

There are ☐ thousandths.

The number in digits is ☐

3 Write the value of the 3 in each number.

a) 3.65 _____

b) 0.093 _____

c) 18.31 _____

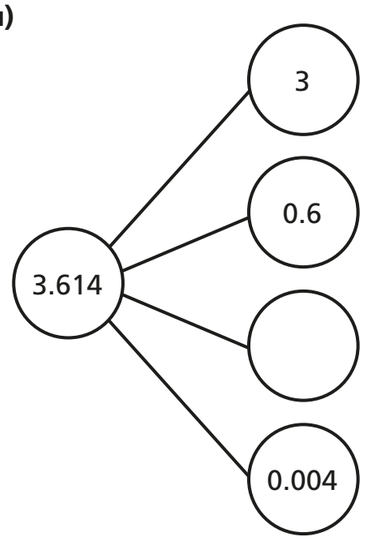
d) 72.439 _____

e) 32.701 _____

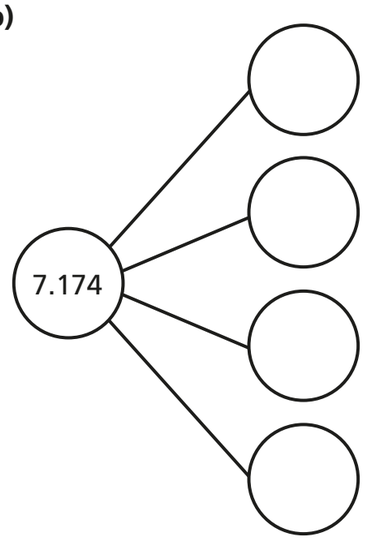
f) 19.03 _____

4 Complete the part-whole models.

a)



b)



5 Complete the number sentences.

a) 17.134 = 10 + 7 + 0.1 + ☐ + 0.004

b) 94.077 = 90 + 4 + 0.07 + ☐

c) ☐ = 30 + 4 + 0.07 + 0.009

6 Complete the number sentences.

1.456 = 1 + 0.4 + ☐ + 0.006

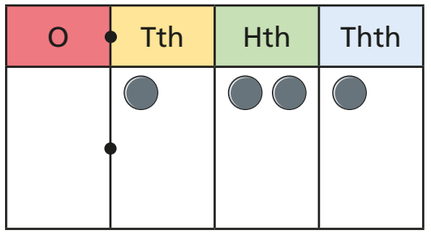
1.456 = 1 + 0.3 + ☐ + 0.006

1.456 = 1 + 0.2 + ☐ + 0.006

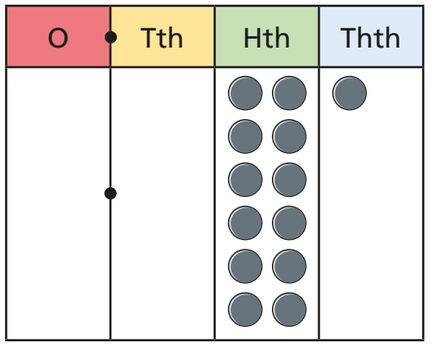
1.456 = 1 + ☐ + 0.006

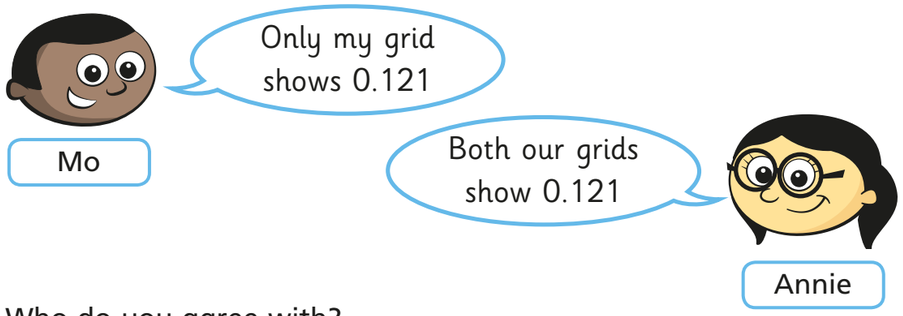
7 Mo and Annie have represented 0.121 on their place value charts.

Mo's chart



Annie's chart





Who do you agree with? _____

Explain why.

_____

_____

_____

_____

Three decimal places

1 Use place value counters to make the numbers.

Draw your answers.

a) 1.343

T	O	Tth	Hth	Thth

b) 16.052

T	O	Tth	Hth	Thth

c) 7.001

T	O	Tth	Hth	Thth

d) 70.01

T	O	Tth	Hth	Thth

2 Complete the sentences.

O	Tth	Hth	Thth

There are 3 ones.

There are 2 tenths.

There are 4 hundredths.

There are 5 thousandths.

The number in digits is 3·245

3 Write the value of the 3 in each number.

a) 3.65 3 ones

b) 0.093 3 thousandths

c) 18.31 3 tenths

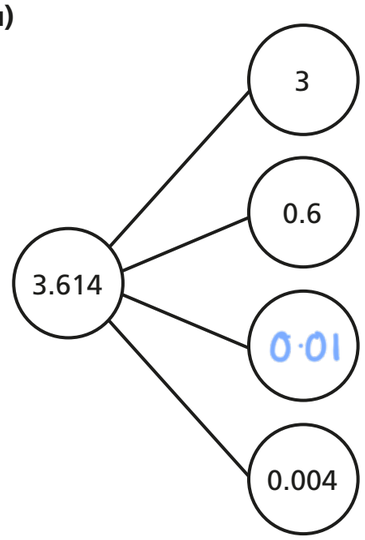
d) 72.439 3 hundredths

e) 32.701 3 tens

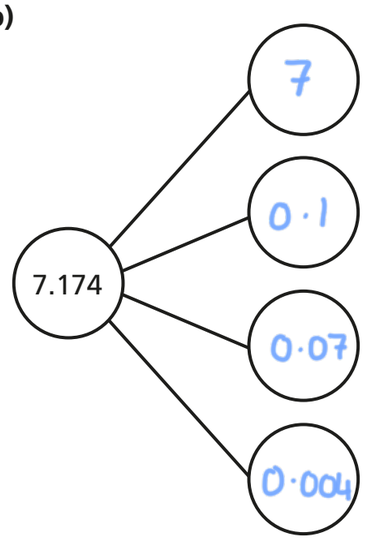
f) 19.03 3 hundredths

4 Complete the part-whole models.

a)



b)



5 Complete the number sentences.

a) 17.134 = 10 + 7 + 0.1 + [0·03] + 0.004

b) 94.077 = 90 + 4 + 0.07 + [0·007]

c) [34.079] = 30 + 4 + 0.07 + 0.009

6 Complete the number sentences.

1.456 = 1 + 0.4 + [0·05] + 0.006

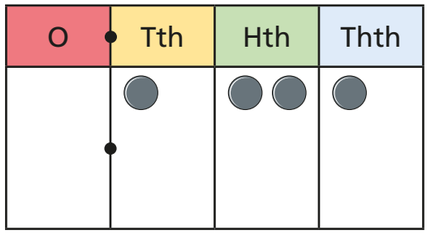
1.456 = 1 + 0.3 + [0·15] + 0.006

1.456 = 1 + 0.2 + [0·25] + 0.006

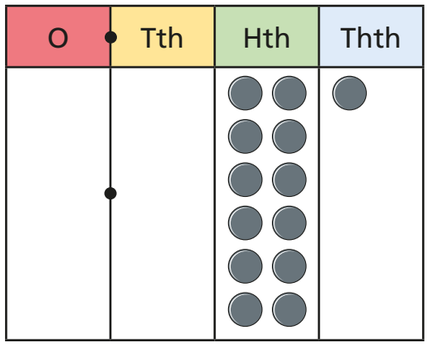
1.456 = 1 + [0·45] + 0.006

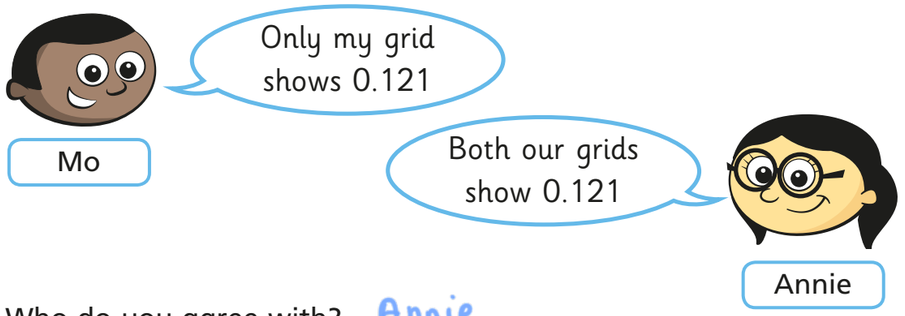
7 Mo and Annie have represented 0.121 on their place value charts.

Mo's chart



Annie's chart





Who do you agree with? Annie

Explain why.

Annie could exchange 10 hundredths for one tenth then their grids would be the same.

Multiply by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O •	Tth	Hth

a) 2.3 × 10 = ☐

When the number is multiplied by 10 the counters move ☐ place to the left.

b) 2.3 × 100 = ☐

When the number is multiplied by 100 the counters move ☐ places to the left.

c) 2.3 × 1,000 = ☐

When the number is multiplied by 1,000 the counters move ☐ places to the left.

2 Complete the diagram.

3.06 → × 10 → ☐ → × 10 → ☐

3 **a)** Draw counters on the place value charts to represent each calculation.

4.4 × 1

Th	H	T	O •	Tth	Hth

4.4 × 10

Th	H	T	O •	Tth	Hth

4.4 × 100

Th	H	T	O •	Tth	Hth

4.4 × 1,000

Th	H	T	O •	Tth	Hth

b) Complete the calculations.

4.4 × 1 = ☐

4.4 × 10 = ☐

4.4 × 100 = ☐

4.4 × 1,000 = ☐

What do you notice?

4 Complete the calculations.

a) 13.44 × 10 = ☐

b) 41.4 × 100 = ☐

c) 0.415 × 1,000 = ☐

d) 4.4 × ☐ = 4,400

e) ☐ = 1.03 × 100

f) 30.44 = ☐ × 10

5 Complete the diagrams.

7.039 → (× 10) → ☐ → (× 10) → ☐ → (× 10) → ☐

7.039 → (× 100) → ☐ → (× 10) → ☐

7.039 → (× 1,000) → ☐

What do you notice? Why does this happen?

_____

_____

_____

_____

6 Write >, < or = to compare the number sentences.

1.4 × 10 × 10 × 10 ◯ 1.4 × 1,000

1.4 × 10 × 100 ◯ 1.4 × 1,000

1.4 × 10 × 10 ◯ 1.4 × 1,000

1.4 × 10 × 2 ◯ 1.4 × 100

7 Kim is calculating 14.3 × 200

She writes this as her answer.

14.3 × 200 = 28.600

Explain Kim's mistake.

_____

_____

_____

8 Use the cards to complete the calculation.

You can use each card more than once.

× 1	× 10	× 100	× 1,000

0.002 ☐ ☐ ☐ = 2,000

How many ways is it possible to complete this calculation?

Talk about it with a partner.

Multiply by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth

a) 2.3 × 10 = 23

When the number is multiplied by 10 the counters move 1 place to the left.

b) 2.3 × 100 = 230

When the number is multiplied by 100 the counters move 2 places to the left.

c) 2.3 × 1,000 = 2,300

When the number is multiplied by 1,000 the counters move 3 places to the left.

2 Complete the diagram.

3.06 → × 10 → 30·6 → × 10 → 306

3 **a)** Draw counters on the place value charts to represent each calculation.

4.4 × 1

Th	H	T	O	Tth	Hth

4.4 × 10

Th	H	T	O	Tth	Hth

4.4 × 100

Th	H	T	O	Tth	Hth

4.4 × 1,000

Th	H	T	O	Tth	Hth

b) Complete the calculations.

4.4 × 1 = 4·4

4.4 × 10 = 44

4.4 × 100 = 440

4.4 × 1,000 = 4,400

What do you notice?

4 Complete the calculations.

a) 13.44 × 10 = 134·4

b) 41.4 × 100 = 4,140

c) 0.415 × 1,000 = 415

d) 4.4 × 1,000 = 4,400

e) 103 = 1.03 × 100

f) 30.44 = 3·044 × 10

5 Complete the diagrams.

7.039 → (× 10) → 70·39 → (× 10) → 703·9 → (× 10) → 7,039

7.039 → (× 100) → 703·9 → (× 10) → 7,039

7.039 → (× 1,000) → 7,039

What do you notice? Why does this happen?

They all give the same final answer because 10 ×10 ×10 = 100 ×10 = 1,000

6 Write >, < or = to compare the number sentences.

1.4 × 10 × 10 × 10 = 1.4 × 1,000

1.4 × 10 × 100 = 1.4 × 1,000

1.4 × 10 × 10 < 1.4 × 1,000

1.4 × 10 × 2 < 1.4 × 100

7 Kim is calculating 14.3 × 200

She writes this as her answer.

14.3 × 200 = 28.600

Explain Kim's mistake.

She has multiplied by 2 and added two zeros. She hasn't considered the place value of each digit. 14·3×200 = 2,860

8 Use the cards to complete the calculation.

You can use each card more than once.

× 1 | × 10 | × 100 | × 1,000

E.g. 0.002 × 10 × 100 × 1,000 = 2,000

How many ways is it possible to complete this calculation?

Talk about it with a partner.

Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	● ● ● ●			

a) 140 ÷ 10 = ☐

When the number is divided by 10 the counters move ☐ place to the right.

b) 140 ÷ 100 = ☐

When the number is divided by 100 the counters move ☐ places to the right.

c) 140 ÷ 1,000 = ☐

When the number is divided by 1,000 the counters move ☐ places to the right.

2 Complete the diagram.

43 → ÷ 10 → ☐ → ÷ 10 → ☐

3 **a)** Draw counters to represent the calculations.

123 ÷ 1

H	T	O	Tth	Hth	Thth

123 ÷ 10

H	T	O	Tth	Hth	Thth

123 ÷ 100

H	T	O	Tth	Hth	Thth

123 ÷ 1,000

H	T	O	Tth	Hth	Thth

b) Complete the calculations.

123 ÷ 1 = ☐

123 ÷ 10 = ☐

123 ÷ 100 = ☐

123 ÷ 1,000 = ☐

What do you notice?

4 Complete the calculations.

a) 16 ÷ 10 = ☐

b) 43.4 ÷ 100 = ☐

c) 614 ÷ 1,000 = ☐

d) 332 ÷ ☐ = 0.332

e) 2.4 ÷ 200 = ☐

f) 5.09 = ☐ ÷ 20

5 Complete the diagrams.

314 → ÷ 10 → ☐ → ÷ 10 → ☐ → ÷ 10 → ☐

314 → ÷ 100 → ☐ → ÷ 10 → ☐

314 → ÷ 1,000 → ☐

What do you notice? Why does this happen?

_____

_____

_____

_____

6 Write >, < or = to compare the number sentences.

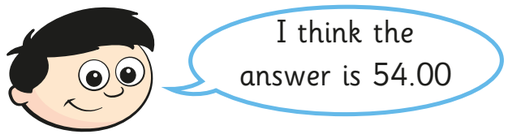
5,400 ÷ 10 ÷ 10 ÷ 10 ◯ 5,400 ÷ 1,000

60 ÷ 100 ÷ 10 ◯ 600 ÷ 100

5.7 ÷ 10 ◯ 57 ÷ 100

5,601 ÷ 1,000 ◯ 5.601 ÷ 10

7 Dexter is solving the calculation 5,400 ÷ 100



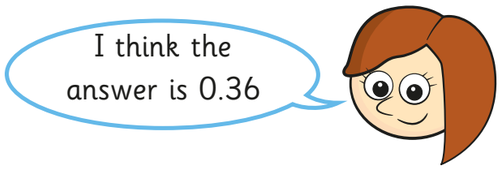
Is Dexter correct? _____

Explain your reasoning.

_____

_____

8 Rosie is solving the calculation 3,600 ÷ 200



Is Rosie correct? _____

Explain your reasoning.

_____

_____

Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O •	Tth	Hth
	●	● ● ● ●			

a) 140 ÷ 10 = 14

When the number is divided by 10 the counters move 1 place to the right.

b) 140 ÷ 100 = 1·4

When the number is divided by 100 the counters move 2 places to the right.

c) 140 ÷ 1,000 = 0·14

When the number is divided by 1,000 the counters move 3 places to the right.

2 Complete the diagram.

43 → ÷ 10 → 4·3 → ÷ 10 → 0·43

3 **a)** Draw counters to represent the calculations.

123 ÷ 1

H	T	O •	Tth	Hth	Thth
○	○ ○	○ ○ ○			

123 ÷ 10

H	T	O •	Tth	Hth	Thth
○	○ ○	○ ○ ○			

123 ÷ 100

H	T	O •	Tth	Hth	Thth
○	○ ○	○ ○ ○			

123 ÷ 1,000

H	T	O •	Tth	Hth	Thth
○	○ ○	○ ○ ○			

b) Complete the calculations.

123 ÷ 1 = 123

123 ÷ 10 = 12.3

123 ÷ 100 = 1.23

123 ÷ 1,000 = 0.123

What do you notice?

4 Complete the calculations.

a) 16 ÷ 10 = 1·6

b) 43.4 ÷ 100 = 0·434

c) 614 ÷ 1,000 = 0.614

d) 332 ÷ 1,000 = 0.332

e) 2.4 ÷ 200 = 0.012

f) 5.09 = 101.8 ÷ 20

5 Complete the diagrams.

314 → ÷ 10 → 31·4 → ÷ 10 → 3·14 → ÷ 10 → 0·314

314 → ÷ 100 → 3·14 → ÷ 10 → 0·314

314 → ÷ 1,000 → 0·314

What do you notice? Why does this happen?

They all give the same final answer because 10 x 10 x 10 = 100 x 10 = 1,000

6 Write >, < or = to compare the number sentences.

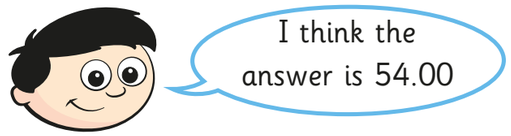
5,400 ÷ 10 ÷ 10 ÷ 10 = 5,400 ÷ 1,000

60 ÷ 100 ÷ 10 < 600 ÷ 100

5.7 ÷ 10 = 57 ÷ 100

5,601 ÷ 1,000 > 5.601 ÷ 10

7 Dexter is solving the calculation 5,400 ÷ 100

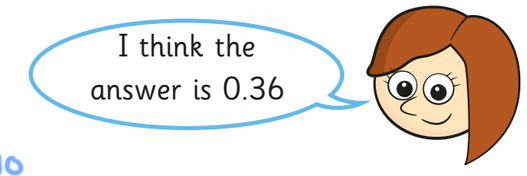


Is Dexter correct? Yes

Explain your reasoning.

54·00 is the same as 54

8 Rosie is solving the calculation 3,600 ÷ 200



Is Rosie correct? NO

Explain your reasoning.

She has divide by 100 twice (10,000) she should have divided by 100 then 2 to give an answer of 18

Why were we still using Roman Numerals in Britain until the 12th Century?

I have included the work that would be on Seesaw. If you can't access Seesaw work through the sheets I have provided and where it says listen or watch do of much as it as you can. I have included a few extra pieces of information that might be help below.

Roman numerals are still used today and can be found in many places.

- They are still used in almost all cases for the copyright date on films, television programmes, and videos - for example MCMLXXXVI for 1986. You can see an example of the current copyright date written in this way on the web at the BBC site, currently of course MMV.
- They are also used to show the hours on some analogue clocks and watches. Here, though, the four is almost always depicted as IIII not as IV. An exception is one of the most famous clocks in the world - usually called Big Ben in the Clock Tower of the Palace of Westminster where the UK Houses of Parliament are located. The numerals are in lower case, gothic script and the 4 is depicted as iv. See also Clocking the Fours for a discussion on why IIII is used and other examples of IV on clockfaces.
- Intel, the computer chip maker, called the new version of its Pentium processor launched in May 1997 the Pentium II. The next version was Pentium III. But in 2000 Intel unveiled its latest chip as the Pentium 4. Maybe Intel thought that Pentium IV was too difficult for people to cope with.
- They can be used for the preliminary pages of book before the main page numbering gets under way. Here they numerals normally use lower case letters so pages i, iv, xi and so on.
- Sporting events are often numbered using Roman numerals. The Athens Olympics in 2004, the 28th games in modern times, were called the Games of the XXVIII Olympiad, showing that it is the 28th games of the modern era since the first in 1896. The 2006 Winter Games in Torino, Italy will be the XX Winter Games; they began in 1924 and were in the same year as the Summer games until 1992. Beijing will be the XXIX Olympiad in 2008 and the 2012 Games won by London will be the XXX Olympiad. When counting Olympic Games the ones cancelled during war in 1916, 1940, and 1944 are included.
  In the USA the American football championship is called Super Bowl. In 2005, the 39th championship was Super Bowl XXXIX and the 2006 event will be Super Bowl XL.

- Monarchs are usually numbered in Roman - eg King Edward VII of England, Louis XIV of France. Popes are also numbered using Roman numerals so the late Pope was John Paul II and the current Pope is Benedict XVI.
- This form is also sometimes seen in naming eldest sons in American families where successive generations bear the same first name. The first time it happens the son is called Junior or Jr. In further generations Roman numerals are used. On 22 July 2005, *The Columbus Dispatch* reported the death of the 80 year old war veteran Joseph M. Clifford Jr. at the age of 80. His son, Joseph M. Clifford III, of Phoenix, Arizona, survived him.
- They are found in numbering paragraphs in complex documents to clarify which are main sections and which subsections so II.3.iv.(5). And they are used for similar reasons to show the volume number of periodicals eg vol.VI no.5. *The New York Times* still does this on its front page - eg VOL. CXLVII..No.51,305.
- You will sometimes find the first and second world wars referred to as World War I and World War II or even WWI and WWII.
- Roman numerals can be seen on public buildings, monuments and gravestones, sometimes when the inscription is in Latin but often just to give the date a certain gravity. On gravestones, as well as the date of death, Roman numerals can be used for the age of the deceased.
- Before the 18th century they were widely used for the publication date on printed books. Since that time they are still sometimes found on the title page, usually on specially printed or luxurious editions.

Up until the eighteenth century Roman numerals were used in Europe for book-keeping even though the Indo-Arabic numerals we use today were known in Europe and widely used in Europe from around 1000 AD. There are said to be two reasons for this.

- Adding and subtracting are very easy with Roman numerals.
- Indo-Arabic numerals can more easily be mistaken or forged - a 0 can look very like a 6 or an 8 or a 9 or be turned into one by a single stroke.

Although simple arithmetic may be easier with Roman numerals, multiplication and division, fractions, and more advanced mathematics are difficult and the lack of a zero is a particular disadvantage. So Indo-Arabic numerals slowly replaced Roman ones in everyday life.

Mr Easton

January 20, 2021

History week 5 day 1 and 2

Why were we still using Roman Numerals in Britain until the 12th Century?

Today and probably for the rest of the week we are going to think about why we were still using Roman numerals in Britain until the 12th Century 1101 - 1200.

Work through the pupil activities slowly thinking and recording your answers either as

There is a lot of THINKING so if you can talk this through with others its a good idea.

History week 5 day 1 and...

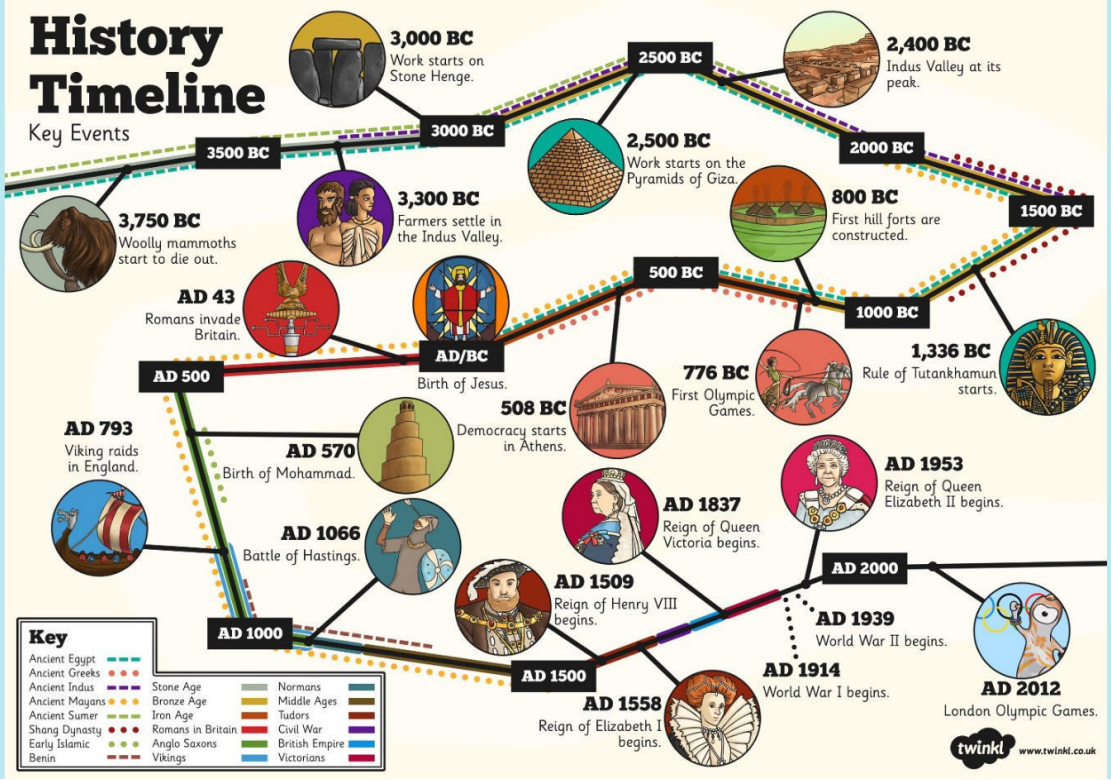
Mr Easton

Example 1 of 1

This page has links. Use Seesaw to open them.

MARK ON THIS TIMELINE WHEN THE ROMAN ABANDONED BRITAIN - THEY STOPPED DEFENDING IT BUT MANY ROMANS STAYED IN ENGLAND

THE ROMANS LEFT IN THE 5TH CENTURY 401 TO 500AD



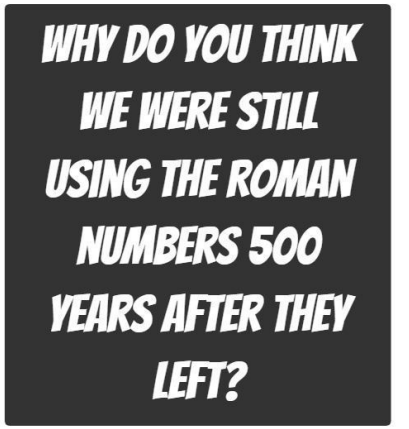
Mark on this timeline the 12th Century

THE 12TH CENTURY IS BETWEEN 1101 AND 1200

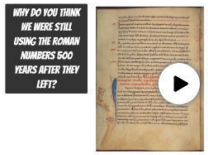
USE THIS WEBSITE TO WRITE DOWN 5 THINGS THAT THE ROMAN'S BROUGHT IN TO BRITAIN

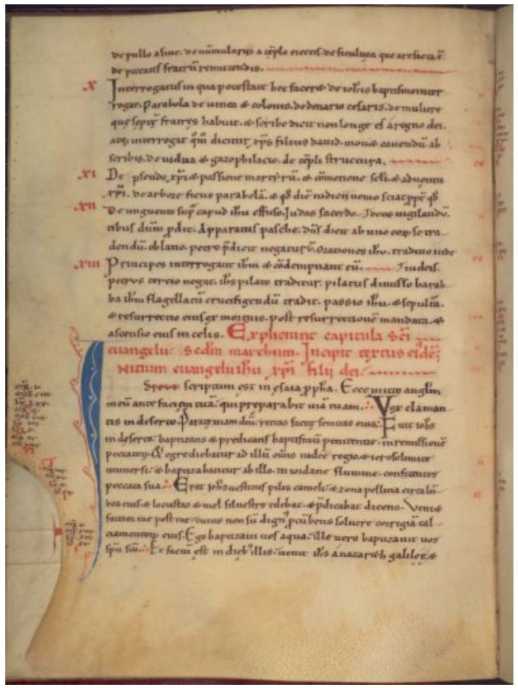
TELL ME ABOUT THE ROMAN NUMBER SYSTEM

USE THIS WEBSITE TO REMIND YOURSELVES ABOUT THE ROMAN NUMBER SYSTEM



Clue here. Click to listen.



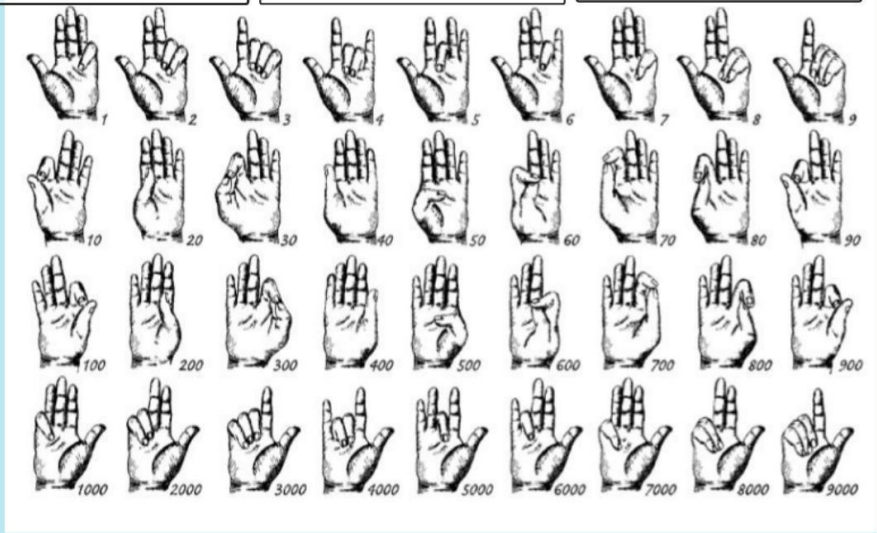


This page has a video. Use Seesaw to play it.

The picture, from 1494, is of Bede's number system.

Bede was alive 700 years before this was produced so he lived about 794, just at the end of the Roman period in Britain

The (Hindu-Arabic) numbers next to the hands were added.



What does this tell us about Roman numerals?

It tell us that by the end of 1400 and the start of 1500 Roman numerals were not as popular and that the Hindu-Arabic number system, that we use today, was increasingly more popular

Writing in the north of England in the early 8th century, the Venerable Bede described a Roman system of finger counting:

1 = the little finger bent at the middle joint
2 = the ring and little fingers bent at the middle joints
3 = the middle, ring, and little fingers bent at the middle joints
4 = the middle and ring fingers bent at the middle joints
5 = the middle finger only bent at the middle joint
6 = the ring finger bent at the middle joint
7 = the little finger closed on the palm
8 = the ring and little fingers closed on the palm
9 = the middle, ring, and little fingers closed on the palm
10 = the tip of the index finger touching the middle joint of the thumb
11 to 19 = the actions denoting each numeral from 1 to 9 plus that of 10
20 = the thumb tucked between the index and middle fingers, so that the thumbnail touches the middle joint of the index finger
21 to 29 = the actions denoting each numeral from 1 to 9 plus that of 20
30 = the tips of the thumb and index finger touching and forming a circle or ring
40 = the thumb and index finger standing erect and close together
50 = the thumb bent at both joints and held against the palm
60 = the index finger closed over the thumb
70 = the first joint of the index finger resting over the first joint of the thumb, which is held nearly straight
80 = the tip of the index finger resting on the first joint of the thumb
90 = the thumb bent over the first joint of the index finger

Record yourself attempting to count using the Bede Number style? Was it difficult? could you add up with this system?

Website link here

Where can you find Roman Numerals still be used today?

Can you add a list and a few images of Roman Numerals and where you might find them.

Why did the Hindu-Arabic system take over? What made it a better nuber system?

How Do You Feel?

é	n	e	r	v	é	e	n	f	d	m	s
t	h	é	n	e	r	v	é	a	é	j	u
h	e	u	r	e	u	x	b	t	s	c	r
n	u	v	a	é	a	s	è	i	o	o	p
f	r	d	é	s	o	l	é	g	l	n	r
â	e	y	f	i	e	r	g	u	é	t	i
c	u	â	o	é	k	l	t	é	e	e	s
h	s	s	h	d	p	o	r	i	l	n	t
é	e	c	s	u	p	r	i	s	h	t	x
r	â	y	s	q	é	x	s	v	n	c	è
f	i	è	r	e	â	c	t	b	â	è	i
f	a	t	i	g	u	é	e	q	g	y	j

heureux	heureuse
triste	désolé
désolée	énervé
énervée	fatigué
fatiguée	fier
fière	surpris
surprise	fâché
fâchée	content

How Do You Feel?

é	n	e	r	v	é	e	n	f	d	m	s
t	h	é	n	e	r	v	é	a	é	j	u
h	e	u	r	e	u	x	b	t	s	c	r
n	u	v	a	é	a	s	è	i	o	o	p
f	r	d	é	s	o	l	é	g	l	n	r
â	e	y	f	i	e	r	g	u	é	t	i
c	u	â	o	é	k	l	t	é	e	e	s
h	s	s	h	d	p	o	r	i	l	n	t
é	e	c	s	u	p	r	i	s	h	t	x
r	â	y	s	q	é	x	s	v	n	c	è
f	i	è	r	e	â	c	t	b	â	è	i
f	a	t	i	g	u	é	e	q	g	y	j

heureux	heureuse
triste	désolé
désolée	énervé
énervée	fatigué
fatiguée	fier
fière	surpris
surprise	fâché
fâchée	content

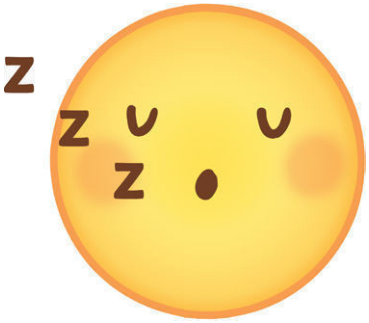
Comment te sens-tu aujourd'hui ?

(How are you feeling today?)

I can alter an adjective to match gender.

I can pronounce the difference between two versions of the same adjective.

Je suis...

 heureux/heureuse	 désolé/désolée	 énervé/énervée
 fatigué/fatiguée	 fier/fière	 surpris/surprise
 fâché/fâchée	 content/contente	 triste/triste

The Parable of the Good Samaritan

25 A teacher of the Law came up and tried to trap Jesus. “Teacher,” he asked, “what must I do to receive eternal life?”

26 Jesus answered him, “What do the Scriptures say? How do you interpret them?”

27 The man answered, “‘Love the Lord your God with all your heart, with all your soul, with all your strength, and with all your mind’; and ‘Love your neighbour as you love yourself.’”

28 “You are right,” Jesus replied; “do this and you will live.”

29 But the teacher of the Law wanted to justify himself, so he asked Jesus, “Who is my neighbour?”

30 Jesus answered, “There was once a man who was going down from Jerusalem to Jericho when robbers attacked him, stripped him, and beat him up, leaving him half dead. 31 It so happened that a priest was going down that road; but when he saw the man, he walked on by on the other side. 32 In the same way a Levite also came there, went over and looked at the man, and then walked on by on the other side. 33 But a Samaritan who was traveling that way came upon the man, and when he saw him, his heart was filled with pity. 34 He went over to him, poured oil and wine on his wounds and bandaged them; then he put the man on his own animal and took him to an inn, where he took care of him. 35 The next day he took out two silver coins and gave them to the innkeeper. ‘Take care of him,’ he told the innkeeper, ‘and when I come back this way, I will pay you whatever else you spend on him.’”

36 And Jesus concluded, “In your opinion, which one of these three acted like a neighbour toward the man attacked by the robbers?”

37 The teacher of the Law answered, “The one who was kind to him.”

Jesus replied, “You go, then, and do the same.”

Jesus Is Crucified

26 The soldiers led Jesus away, and as they were going, they met a man from Cyrene named Simon who was coming into the city from the country. They seized him, put the cross on him, and made him carry it behind Jesus.

27 A large crowd of people followed him; among them were some women who were weeping and wailing for him. 28 Jesus turned to them and said, “Women of Jerusalem! Don't cry for me, but for yourselves and your children. 29 For the days are coming when people will say, ‘How lucky are the women who never had children, who never bore babies, who never nursed them!’ 30 That will be the time when people will say to the mountains, ‘Fall on us!’ and to the hills, ‘Hide us!’ 31 For if such things as these are done when the wood is green, what will happen when it is dry?”

32 Two other men, both of them criminals, were also led out to be put to death with Jesus. 33 When they came to the place called “The Skull,” they crucified Jesus there, and the two criminals, one on his right and the other on his left. 34 Jesus said, “Forgive them, Father! They don't know what they are doing.”[b]

They divided his clothes among themselves by throwing dice. 35 The people stood there watching while the Jewish leaders made fun of him: “He saved others; let him save himself if he is the Messiah whom God has chosen!”

36 The soldiers also made fun of him: they came up to him and offered him cheap wine, 37 and said, “Save yourself if you are the king of the Jews!”

38 Above him were written these words: “This is the King of the Jews.”

39 One of the criminals hanging there hurled insults at him: “Aren't you the Messiah? Save yourself and us!”

40 The other one, however, rebuked him, saying, “Don't you fear God? You received the same sentence he did. 41 Ours, however, is only right, because we are getting what we deserve for what we did; but he has done no wrong.” 42 And he said to Jesus, “Remember me, Jesus, when you come as King!”

43 Jesus said to him, “I promise you that today you will be in Paradise with me.

RE –

Today we are going to think carefully about the Christian ideas of values such as love and forgiveness.

If you can watch and listen to this version of The Good Samaritan, Jesus told this as a parable. What Christian values was Jesus trying to share in this story?

https://www.bbc.co.uk/bitesize/clips/zcyr87h

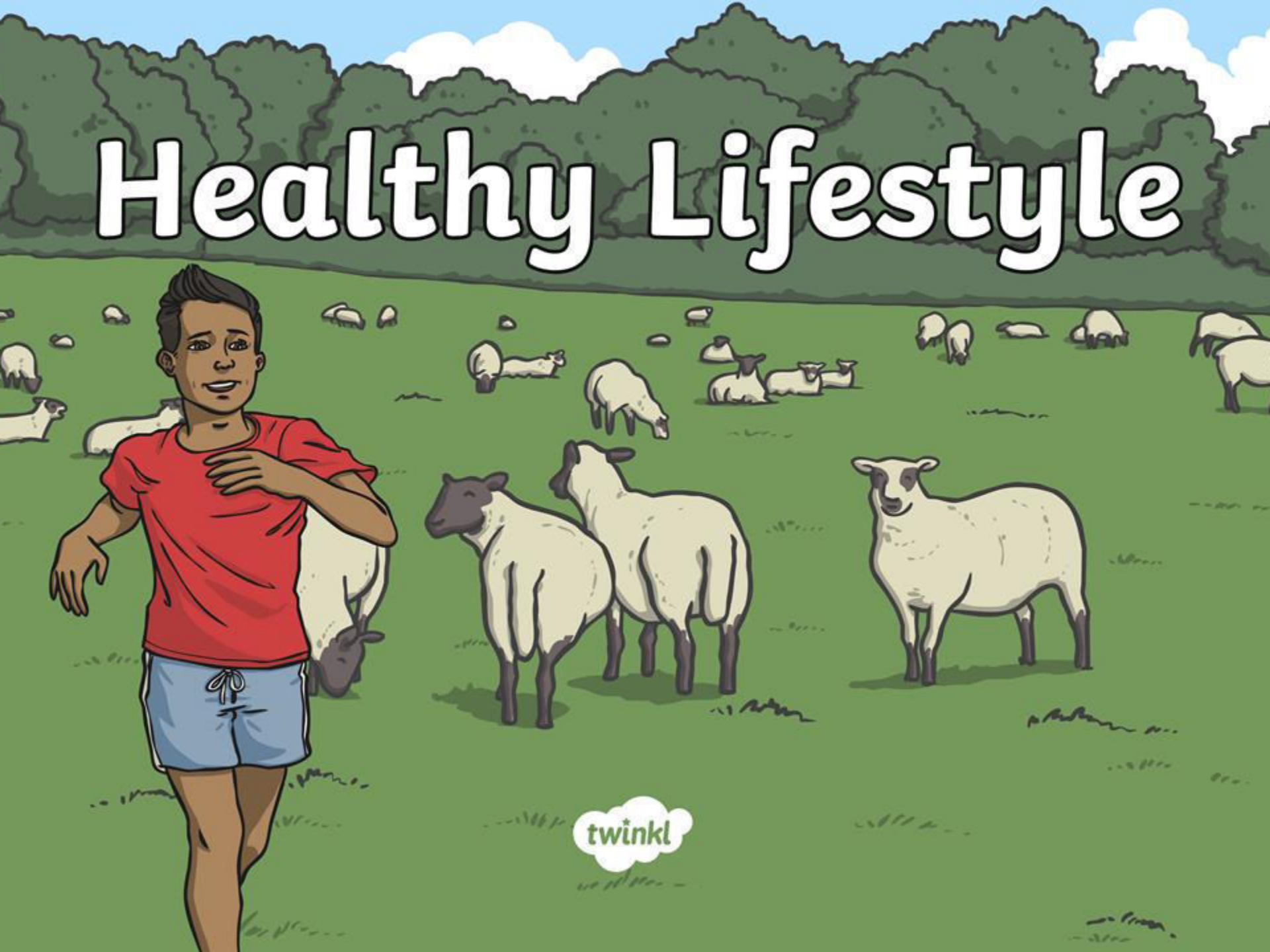
Also read the story taken from the Bible about Jesus' crucifixion. What is the message in this story?

Now it's your turn to retell one of these stories, but set it in 2020 - you choose how to present it:

You can use the Graphic Novel OR Create a PowerPoint to tell the story, adding images and text OR make a book using ICT or pens and paper. You can use iMovie or google clips or another app to make a movie trailer of it OR You can act it out with your loved ones at home and record it

Make sure the overall message and meaning of the parable is the same!

Healthy Lifestyle



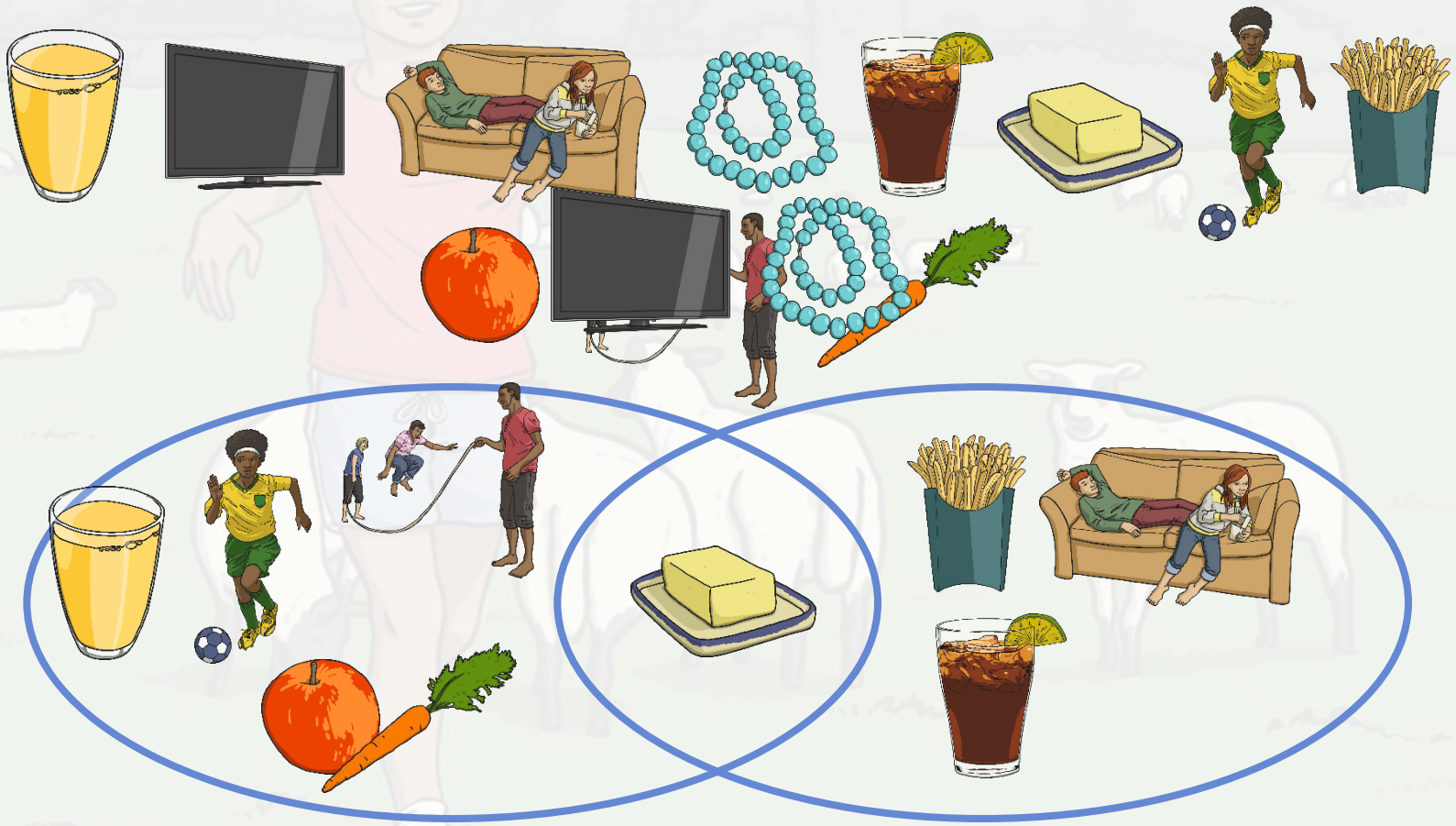
Aim

- I can describe how diet and exercise impact on human bodies.

Success Criteria

- I can identify what a healthy lifestyle consists of.
- I can describe the impact of diet and exercise on the human body.

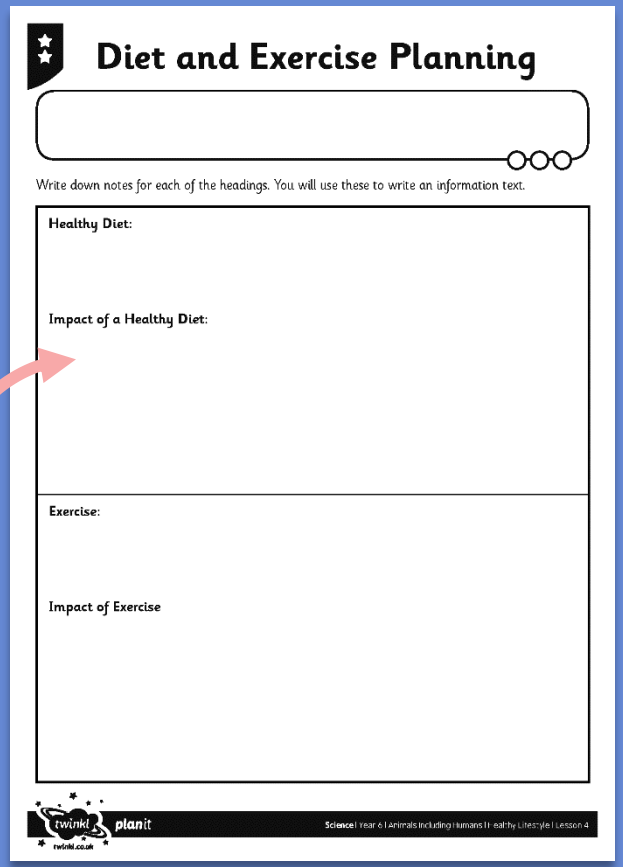
Healthy Lifestyle



How to Have a Healthy Lifestyle

We are going to find out what the body needs to stay healthy.

Take notes on your **Diet and Exercise Planning Sheet**.



Diet and Exercise Planning

Write down notes for each of the headings. You will use these to write an information text.

Healthy Diet:

Impact of a Healthy Diet:

Exercise:

Impact of Exercise

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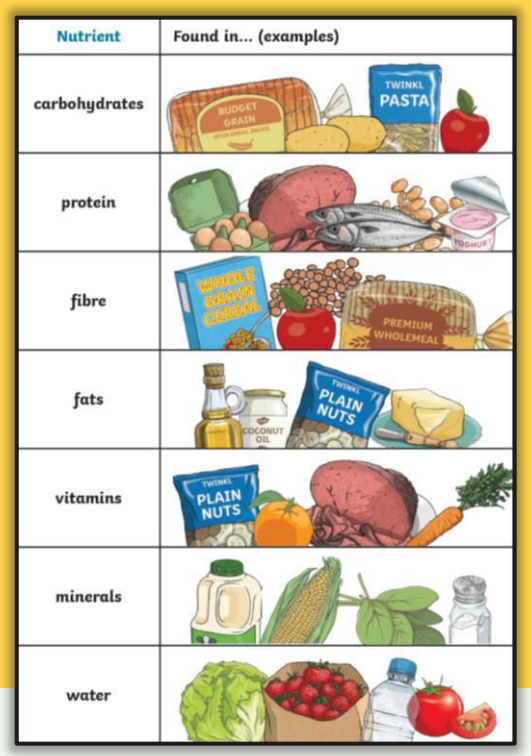
Science | Year 6 | Animals including humans | Healthy Lifestyle | Lesson 4

What is a Healthy Diet?

Healthy Diet:

A healthy diet involves eating the right types of nutrients in the right amounts. This is also called a 'balanced diet'. Each of these nutrient types should be consumed over the course of **each day but not necessarily at each meal!**

One way to make sure that you eat a healthy diet is to ensure that you eat a variety of different foods. There may be certain foods that you don't like, but make sure that you find alternatives or substitutes so that your diet is still balanced.



Nutrient	Found in... (examples)
carbohydrates	
protein	
fibre	
fats	
vitamins	
minerals	
water	

Unhealthy Diet:

An unhealthy diet is one which is not balanced – too much of some nutrient groups are eaten and not enough of the others. It is recognised that eating too much fat is bad for humans, however it needs to be remembered that eating, say, apples all day every day is not healthy either!!

How to Have a Healthy Lifestyle

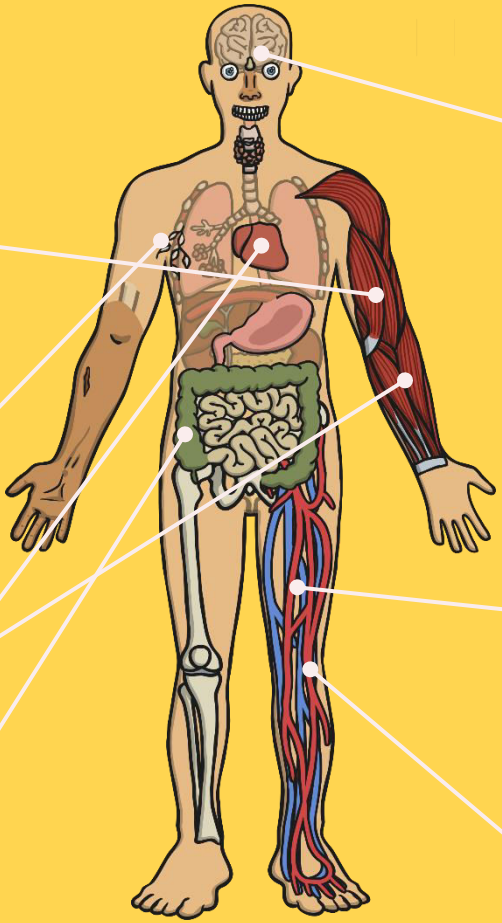
What Is the Impact of a Healthy Diet?

Carbohydrates give all cells energy. It also protects your muscles because if the body does not have enough energy it has to the use the protein tissues in muscles instead. This weakens muscles in the body.

Water helps control your temperature via sweating.

Proteins are needed to create muscles and organs.

Fibre: Keeps your bowels - which include your large intestine healthy.



Fats are needed for every cell membrane - the membrane holds the cell together. Brain tissue is rich in fat. Fat is used to create hormones.

Water half the weight of a human body is water! You can survive without food for longer than you can water. 92% of the volume of blood is water! Without blood your body would not be able to transport nutrients and oxygen.

Protein is needed to make haemoglobin – the part of the red blood cells that carry oxygen.

How to Have a Healthy Lifestyle

What Is the Impact of a Healthy Diet?

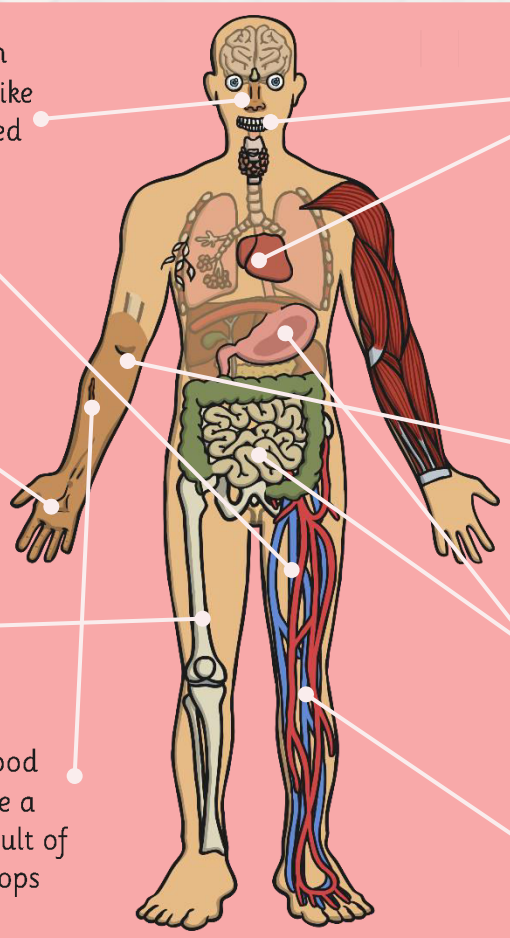
Vitamin A is needed to keep skin and linings of some body parts (like the nose) healthy. It is also needed to help eyes see in dim light.

Vitamins B (there are several types) are needed to make red blood cells.

Vitamin C is needed to regenerate skin cells.

Vitamin D is essential as without it bones and teeth can't absorb calcium. A diet without it leads to soft bones in children (rickets) and misshapen ones in adults (osteomalacia).

Vitamin K is needed to make blood clot – for example when you have a cut your blood clots. This is a result of the cells sticking together. This stops the body bleeding.



Mineral: Calcium is needed for your bones to strengthen. It is also needed to regulate your heartbeat.

Mineral: Iodine keeps your skin, hair and nails healthy. It also keeps your thyroid gland – which controls how your body uses energy - working.

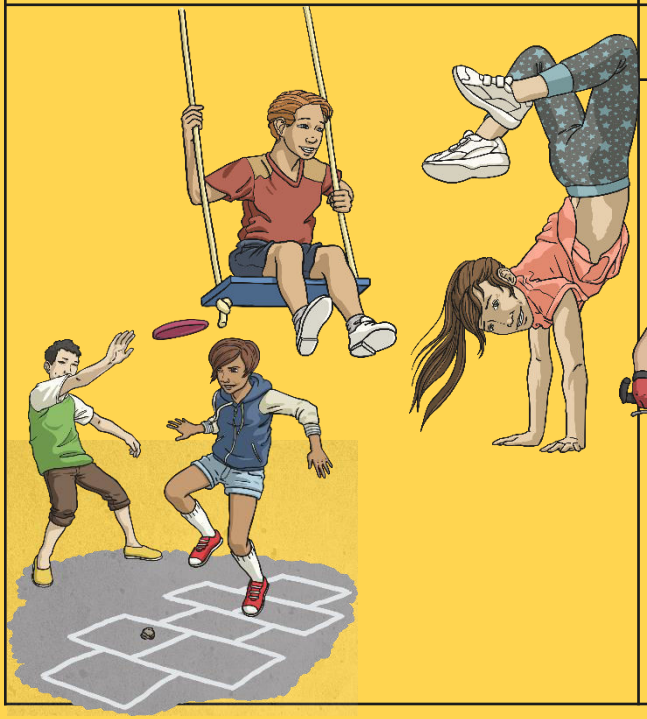
Mineral: Copper – that's right, the metal! The type that you eat is present in foods like raisins, chocolate and seafood! It helps form red blood cells and a lack of it affects the whole body.

Mineral: Iron - like copper, it is a metal that you consume through food like spinach. It is used to make enzymes (point to small intestine and stomach) and protein created by the human body by itself.

Mineral: Salt is needed to balance water in your body tissues and blood.

What Counts as Exercise?

Exercise is physical activity that requires effort, raises your heart rate and works your muscles.

There are two main types of exercise:		
Muscle Strengthening	Bone Strengthening	
	Moderate Intensity	Vigorous Intensity
		

What Is the Impact of Regular Exercise?

Helps you fall asleep faster and deeper so you are better rested.

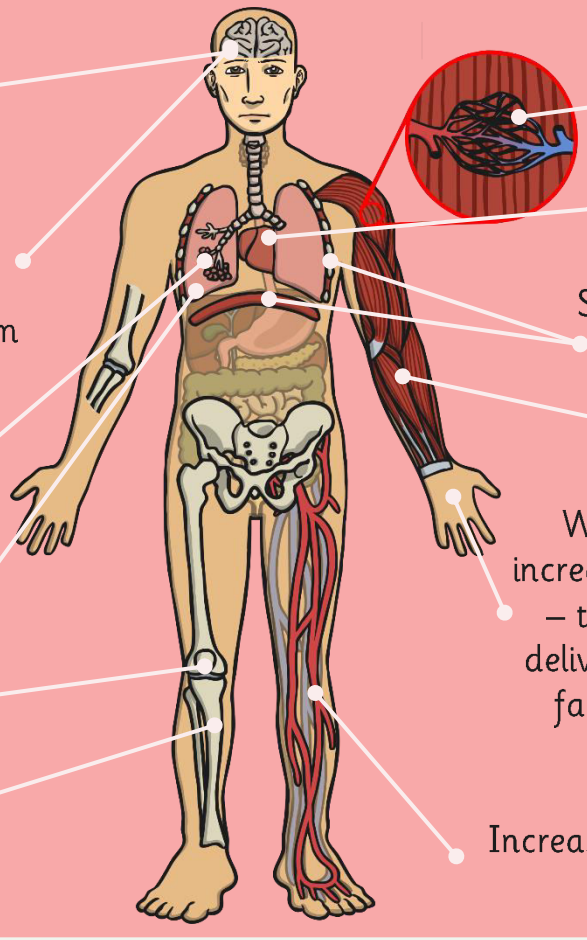
Stimulates and releases **brain** chemicals – for example endorphins leave you feeling happier and serotonin helps keep your mood calm and leaves you feeling relaxed.

Increases the number of air sacs (alveoli).

Increases the amount of oxygen delivered to and carbon dioxide removed from the body.

Joints are more stable.

Bones increase in width and density (The denser the bone, the stronger it is).



Increases the number of **capillaries** in the **muscles**.

Strengthens **heart** muscle.

Strengthens **diaphragm** and **intercostal muscles**.

Strengthens **muscles**.

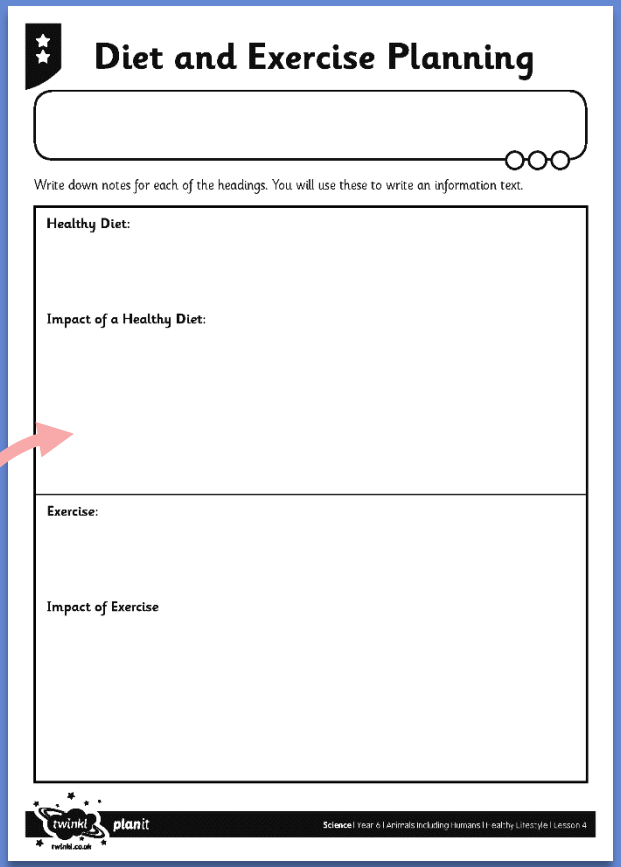
When you exercise your body increases the circulation of blood – this means that nutrients are delivered and waste taken away faster which improves parts of the body like skin.

Increases the volume of blood and red blood cells.

The Impact of Diet and Exercise: Research

You are going to do your own research on the impact of diet and exercise on a healthy lifestyle.

Record your findings on your planning sheet.



Diet and Exercise Planning

Write down notes for each of the headings. You will use these to write an information text.

Healthy Diet:

Impact of a Healthy Diet:

Exercise:

Impact of Exercise

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Science | Year 6 | Animals including humans | Healthy Lifestyle | Lesson 4

Diet and Exercise Planning

Write down notes for each of the headings. You will use these to write an information text.

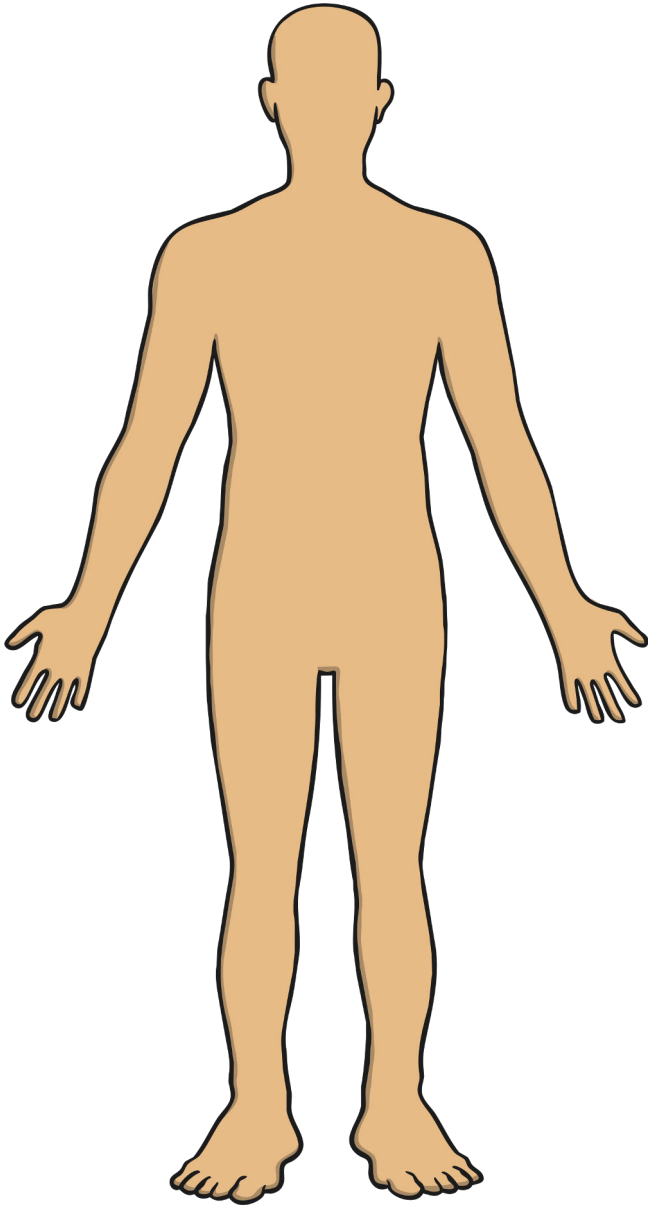
Healthy Diet:

Impact of a Healthy Diet:

Exercise:

Impact of Exercise

Healthy Lifestyle Information Text



Healthy Lifestyle

Starters for Science: Y6 Animals including humans

Starters for Science are 4 activities that parents can use at home to help children develop their science alongside the key learning and vocabulary children are using at school. The activities are easy to resource and provide children with the stimulus to learn and talk about their science topic. Encourage children to use the correct vocabulary as they talk about what they are doing and finding out. Don't forget to share your work on social media

#ScienceFromHome

Key Learning:

Humans have circulation systems that ensure essential nutrients and gases are delivered to all parts of the body and waste materials are removed.
The circulation system includes the heart, blood vessels, arteries, veins, blood and the lungs.
The heart is a pump and is composed of four chambers that pump blood constantly around the body.
Blood travels from the left side of the heart to the lungs where it collects oxygen and releases carbon dioxide. The blood then returns to the heart, this time to the right side, where it is pumped to every other part of the body through arteries. Veins then return the blood to the heart.
Blood contains many things essential for the body such as red blood cells, white blood cells, platelets, nutrients and plasma.
Diet and exercise play an important part in healthy living. An unhealthy diet and lack of exercise is not good for the body.
Some drugs are used to maintain a healthy body however, there are drugs which have a detrimental affect on our bodies.

Vocabulary:

circulatory system
heart
lungs
blood vessels
blood
lifestyle
disease
water transportation
nutrient transportation
oxygen
air
breathing
exercise
diet
drugs

Brilliant bodies

Can you tickle yourself? How many litres of blood do you have in your body? How many times does your heart beat in a day? Test your family with a body trivia quiz. Create your own cards or download some from here:
https://bit.ly/2RFJVRN

Make fake blood

Do you know what is in blood? Can you make a model of blood in an empty bottle? You will need something for red blood cells (red plasticine?), white blood cells (mini marshmallows?), nutrients, plasma and platelets. You can find out more about blood here:
https://www.bbc.co.uk/bitesize/topics/zwdr6yc/articles/zqv4cwx

How does our body work?

Go outside and use chalk to draw around someone's body. Can you draw what goes on inside your body?
www.stem.org.uk/rx34f3

Heart beaters

Take your pulse rate at rest (counting how many pulses you have in 15 seconds and multiplying by four may be easier than taking your pulse for 60 seconds). Do star jumps for one minute and take your pulse rate afterwards. What has happened? Take your pulse rate every minute for five minutes after the star jumps – is it back to your resting rate yet?
www.stem.org.uk/rx33h9