

# YEAR 4 – Inventions!



Hello, Year 4! We are so pleased with all of the work you have been doing. Independence is our value this term, many of you have been fulfilling this by working independently at home, this term challenge yourself to try something new on your own, maybe teach yourself juggling or learn your times tables! Finally, we would love to see what you are doing. Your parents can post photos on Twitter @oldburypark. Some of you are already doing this, it is wonderful to see you all. Also, you can see what your friends have been up to! Good luck! #StaySafe  
 Ms Condon    Mrs Screen    Miss Doughty    Mrs Sheppard

<p><b>EVERY DAY</b></p> <p><b>Daily Maths lessons</b> - <a href="https://whiterosemaths.com/homelearning/">https://whiterosemaths.com/homelearning/</a>                  Watch the video and then complete the written task. Division and decimals                  This is 30-40 minutes work. <a href="https://whiterosemaths.com/homelearning/year-4/-Week-7">https://whiterosemaths.com/homelearning/year-4/-Week 7</a>  <b>Mathletics</b> – 15-20 minutes (more if you wish).  <b>Read</b> for at least 15 minutes</p>	
<p><b>Additional tasks for this week (8/6/20)</b></p>	
<p><u>English</u></p> <p><u>Monday</u>                  This week we are going to write a non-chronological report all about electricity that is suitable for Year 4. Can you remember the features of a non-chronological report and why we use them? (Think about our Anglo Saxon writing!)  <a href="https://www.bbc.co.uk/teach/class-clips-video/how-to-write-a-nonchronological-report/zvbtscw">https://www.bbc.co.uk/teach/class-clips-video/how-to-write-a-nonchronological-report/zvbtscw</a>                  Start to plan your report. We would like your report to have 3 main sections: The History of Electricity, How we use Electricity Today and The Future of Electricity. You should have lots of ideas already from the work we did last week – however you might want to spend some time researching more ideas. Our climate change work for the Robin Walker visit will help you think about the future!</p> <p><u>Tuesday</u>                  Remind yourself how information is displayed by looking at non-fiction texts for ideas. How will you present your report? Why? Today, focus on writing a catchy introduction to your report that will inform and hook the reader.</p> <p><u>Wednesday / Thursday</u>                  When your plan is finished, begin to write the main body of your report. Each paragraph should begin with a topic sentence that explains what it is about, then further sentences to add more detail.  <a href="https://www.educationquizzes.com/ks2/english/paragraphing/">https://www.educationquizzes.com/ks2/english/paragraphing/</a> - find out more about topic sentences</p> <p><u>Friday</u> Time to complete your report. Add a short summary, check punctuation and edit, finally add any pictures or diagrams that are appropriate.</p>	<p><u>Topic</u></p> <p>This week we want you to complete at least one of the following –                  Create an electricity timeline, include inventions that use electricity and what they are used for, this will help you with your English!! See at <a href="http://resources.schoolscience.co.uk/britishenergy/14-16/index.html">http://resources.schoolscience.co.uk/britishenergy/14-16/index.html</a>  <a href="https://www.youtube.com/watch?v=Noe78_1BqyE">https://www.youtube.com/watch?v=Noe78_1BqyE</a>  <a href="https://www.youtube.com/watch?v=0zif9w_vqx0">https://www.youtube.com/watch?v=0zif9w_vqx0</a></p> <p><u>French – The weather – set as Homework</u>  <a href="https://www.educationcity.com">https://www.educationcity.com</a></p> <p><u>RE:</u>                  ‘Pay it Forward’ is the idea of doing unselfish acts of kindness and asking the recipients to pay the kindness forward instead of paying it back. This is a Global concept and something that we have seen a lot of recently during the Lockdown period that we find ourselves in.</p> <p>TASK: Look at the Global Pay it Forward Day website <a href="https://globalpayitforwardday.com/">https://globalpayitforwardday.com/</a> and complete the following thinking about the current Lockdown situation.</p>

Tenths as decimals



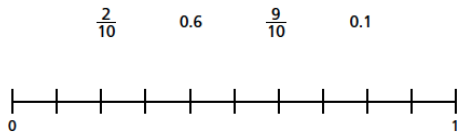
1 Shade the bar models to represent the amounts.

- a) 7 tenths
- b)  $\frac{4}{10}$
- c) 0.3

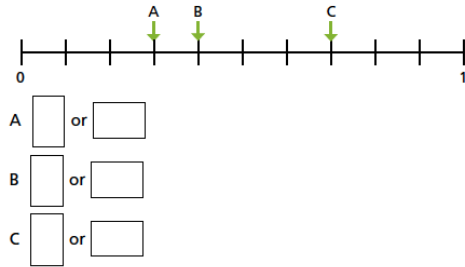
2 Complete the table to show the fractions and decimals the bar models represent.

Bar model	Fraction	Decimal

3 Write each fraction and decimal in the correct place on the number line.



4 Work out the values of A, B and C.  
Give your answers as fractions and decimals.



5 Match the equivalent fractions, decimals and words.

$\frac{3}{10}$	0.7	four tenths
$\frac{9}{10}$	0.3	one tenth
$\frac{7}{10}$	0.4	three tenths
$\frac{4}{10}$	0.1	nine tenths
$\frac{1}{10}$	0.9	seven tenths

6 What is the total value represented by each ten frame?

- a)
- b)
- c)

7



Nine tenths can be written 0.9, so ten tenths must be 0.10

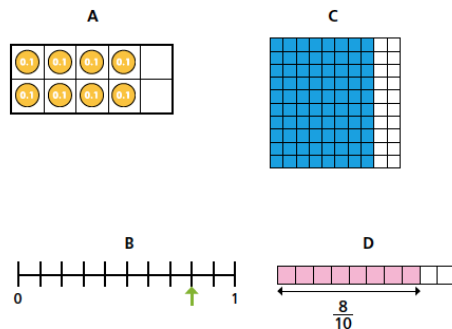
Do you agree with Ron? \_\_\_\_\_  
Explain your answer.

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8 Eight tenths can be represented in all of the ways shown.



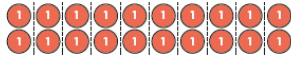
Which do you think is the best representation? \_\_\_\_\_  
Discuss your answer with a partner.  
Represent six tenths in each different way.



# Dividing 2 digits by 10



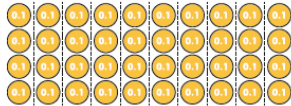
1 a) The array shows 20 shared between 10



Complete the calculation.

$$20 \div 10 = \square$$

b) The array shows 4 shared between 10



Complete the calculation.

$$4 \div 10 = \square$$

c) Complete the calculation.

$$24 \div 10 = \square$$

Compare answers with a partner.



2 a) Draw counters to represent 30 on the place value chart.

Tens	Ones	Tenths
	•	

Complete the division.

$$30 \div 10 = \square$$

Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths
	•	

b) Draw counters to show 35 on the place value chart.

Tens	Ones	Tenths
	•	

Complete the division.

$$35 \div 10 = \square$$

Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths
	•	

c) What do you notice about your answers in parts a) and b)?

d) Complete the sentence.

When dividing by 10, you move the counters  place to the \_\_\_\_\_.

3



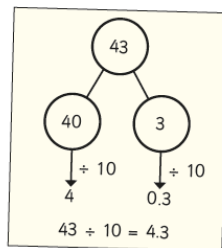
You can't share 13 between 10 because 13 is not a multiple of 10

Do you agree with Rosie? \_\_\_\_\_

Explain your answer.

4 Dexter is calculating  $43 \div 10$

Here are Dexter's workings.

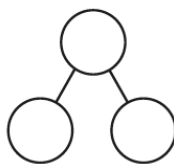
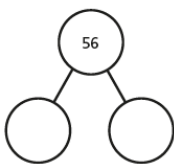


a) Talk to a partner about why Dexter's method works.

b) Use Dexter's method to complete the divisions.

$$56 \div 10 = \square$$

$$71 \div 10 = \square$$



5 Complete the divisions.

$$a) 37 \div 10 = \square$$

$$e) 80 \div 10 = \square$$

$$b) 11 \div 10 = \square$$

$$f) \square = 29 \div 10$$

$$c) 48 \div 10 = \square$$

$$g) \square \div 10 = 6.3$$

$$d) 99 \div 10 = \square$$

$$h) 3.9 = \square \div 10$$

6 This Gattegno chart shows the number 37

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

a)

I need to move the counters one place to the left, so  $37 \div 10 = 26$



Do you agree with Teddy? \_\_\_\_\_

Explain your answer.

\_\_\_\_\_

\_\_\_\_\_

b) How can you use a Gattegno chart to divide by 10?



1 Complete the table.

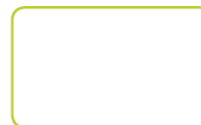
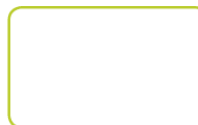
Hundred square	Words	Fraction	Decimal
	thirty-six hundredths		
		$\frac{82}{100}$	
			0.27
	seven tenths		
			0.3



2 Draw decimal place value counters to represent the numbers.

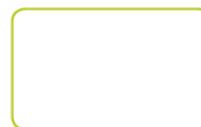
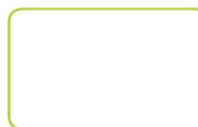
a) 0.03

c) 0.63



b) 0.6

d) 0.36



3 The counters represent tenths and hundredths.

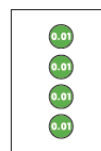
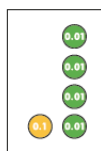
a) Match the decimals to the groups of counters.

0.04

0.4

0.14

0.41



b) Write each decimal as a fraction.

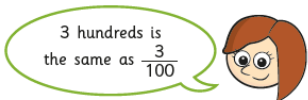
$0.04 = \frac{\quad}{\quad}$

$0.4 = \frac{\quad}{\quad}$

$0.14 = \frac{\quad}{\quad}$

$0.41 = \frac{\quad}{\quad}$

4



Is Rosie correct? \_\_\_\_\_

Explain your answer.

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5

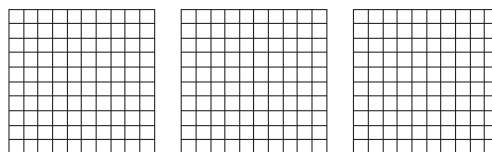
Match the decimals to the descriptions.

Some of the numbers can be described in two ways.

1.3	one tenth and three hundredths
0.03	thirty hundredths
0.3	one and three tenths
0.13	thirteen tenths
0.3	thirteen hundredths
0.03	three tenths
1.3	three hundredths

6

Shade the hundred squares to represent 12 hundredths in three different ways.



Compare answers with a partner.

What is the same? What is different?

7

Dora: 0.6 of the hundred square is shaded.

Ron: 6 tenths of the hundred square is shaded.

Whitney: 0.60 of the hundred square is shaded.

Jack: 60 hundredths of the hundred square is shaded.

Who do you agree with? \_\_\_\_\_

Explain why.

# Dividing 1 and 2 digits by a hundred



1 a) Draw counters to show 8 on the place value chart.

Ones	Tenths	Hundredths
•		

b) Complete the division.

$$8 \div 100 = \square$$

c) Draw counters to show your answer on the place value chart.

Ones	Tenths	Hundredths

What do you notice?

2 a) Draw counters to show 80 on the place value chart.

Tens	Ones	Tenths	Hundredths
	•		

b) Complete the division.

$$80 \div 100 = \square$$

c) Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths	Hundredths

What do you notice?

3 Complete the sentence.

To divide by 100 you move the counters  places to the .

4 Complete the calculations.

a)  $3 \div 100 = \square$

d)  $\square = 60 \div 100$

b)  $90 \div 100 = \square$

e)  $\square \div 100 = 0.5$

c)  $\square = 5 \div 100$

f)  $0.02 = \square \div 100$

5 Dora is working out  $48 \div 100$  using a place value chart.

Tens	Ones	Tenths	Hundredths
•••••	•••••		



To divide by 100 you move two places to the right, so  $48 \div 100$  is 40.08

Tens	Ones	Tenths	Hundredths
•••••			•••••

a) Explain the mistake that Dora has made.

\_\_\_\_\_

\_\_\_\_\_

b) Complete the division.

$$48 \div 100 = \square$$

6 This Gattegno chart shows the number 37

10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

a) Explain how you would work out  $37 \div 100$  using this chart.

\_\_\_\_\_

\_\_\_\_\_

Compare answers with a partner.

b) Use the Gattegno chart to complete the division.

$$92 \div 100 = \square$$

c) Use the Gattegno chart to complete the division.

$$19 \div 100 = \square$$

7 Complete the calculations.

a)  $31 \div 100 = \square$

e)  $\square = 29 \div 100$

b)  $60 \div 100 = \square$

f)  $\square \div 100 = 0.58$

c)  $\square = 85 \div 100$

g)  $0.5 = \square \div 100$

d)  $0.01 = \square \div 100$

h)  $0.3 = 30 \div \square$

8 Complete the calculations.

a)  $36 \div 10 = \square$

b)  $91 \div 10 = \square$

$$36 \div 100 = \square$$

$$91 \div 100 = \square$$

$$36 \div 10 \div 10 = \square$$

$$91 \div 10 \div 10 = \square$$

What do you notice?

9

Dividing by 100 is always the same as dividing by 10 twice.



Do you agree with Amir? \_\_\_\_\_

Explain your answer.

10 Roll two dice to make two 2-digit numbers.

Divide your numbers by 100. Record your answer. Roll again.

Here is an example.



$$36 \div 100 \text{ and } 63 \div 100$$

$$\square \div 100 = \square \text{ and } \square \div 100 = \square$$

$$\square \div 100 = \square \text{ and } \square \div 100 = \square$$

What is the greatest possible answer you can get?

What is the smallest possible answer?

Compare answers with a partner.



## Tenths as decimals



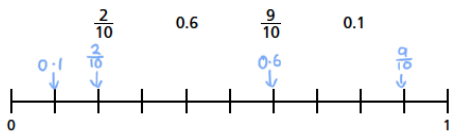
1 Shade the bar models to represent the amounts.

- a) 7 tenths
- b)  $\frac{4}{10}$
- c) 0.3

2 Complete the table to show the fractions and decimals the bar models represent.

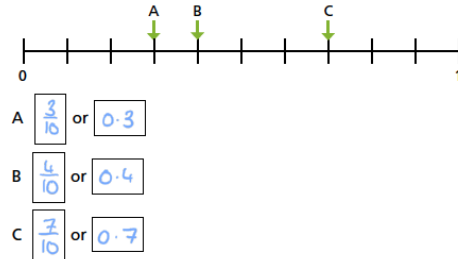
Bar model	Fraction	Decimal
	$\frac{1}{10}$	0.1
	$\frac{5}{10}$	0.5
	$\frac{6}{10}$	0.6
	$\frac{3}{10}$	0.3

3 Write each fraction and decimal in the correct place on the number line.



4 Work out the values of A, B and C.

Give your answers as fractions and decimals.



5 Match the equivalent fractions, decimals and words.

$\frac{3}{10}$  connects to 0.3 and three tenths.  
 $\frac{9}{10}$  connects to 0.9 and nine tenths.  
 $\frac{7}{10}$  connects to 0.7 and seven tenths.  
 $\frac{4}{10}$  connects to 0.4 and four tenths.  
 $\frac{1}{10}$  connects to 0.1 and one tenth.

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6 What is the total value represented by each ten frame?

- a) 100
- b) 10
- c) 1

7



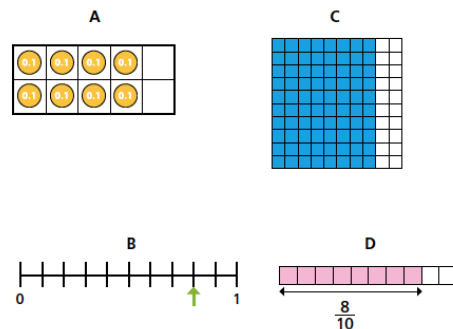
Nine tenths can be written 0.9, so ten tenths must be 0.10

Do you agree with Ron? No

Explain your answer.

Ten tenths is one whole.

8 Eight tenths can be represented in all of the ways shown.



Which do you think is the best representation? \_\_\_\_\_

Discuss your answer with a partner.

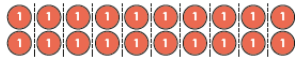
Represent six tenths in each different way.

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# Dividing 2 digits by 10

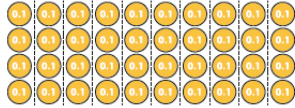
- 1 a) The array shows 20 shared between 10



Complete the calculation.

$$20 \div 10 = \boxed{2}$$

- b) The array shows 4 shared between 10



Complete the calculation.

$$4 \div 10 = \boxed{0.4}$$

- c) Complete the calculation.

$$24 \div 10 = \boxed{2.4}$$

Compare answers with a partner.



- 2 a) Draw counters to represent 30 on the place value chart.

Tens	Ones	Tenths
0 0 0		

Complete the division.

$$30 \div 10 = \boxed{3}$$

Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths
	0 0 0	

- b) Draw counters to show 35 on the place value chart.

Tens	Ones	Tenths
0 0 0	0 0 0 0 0	

Complete the division.

$$35 \div 10 = \boxed{3.5}$$

Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths
	0 0 0	0 0 0 0 0

- c) What do you notice about your answers in parts a) and b)?

- d) Complete the sentence.

When dividing by 10, you move the counters  $\boxed{1}$  place to the right.

3

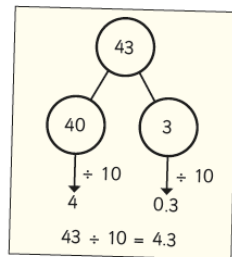


You can't share 13 between 10 because 13 is not a multiple of 10

Do you agree with Rosie? No

Explain your answer.

- 4 Dexter is calculating  $43 \div 10$   
Here are Dexter's workings.

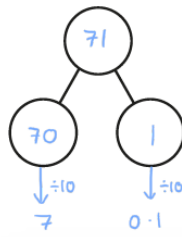
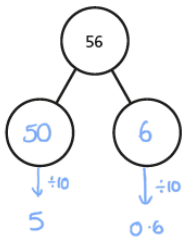


- a) Talk to a partner about why Dexter's method works.

- b) Use Dexter's method to complete the divisions.

$$56 \div 10 = \boxed{5.6}$$

$$71 \div 10 = \boxed{7.1}$$



- 5 Complete the divisions.

$$a) 37 \div 10 = \boxed{3.7}$$

$$e) 80 \div 10 = \boxed{8}$$

$$b) 11 \div 10 = \boxed{1.1}$$

$$f) \boxed{2.9} = 29 \div 10$$

$$c) 48 \div 10 = \boxed{4.8}$$

$$g) \boxed{63} \div 10 = 6.3$$

$$d) 99 \div 10 = \boxed{9.9}$$

$$h) 3.9 = \boxed{39} \div 10$$

- 6 This Gattegno chart shows the number 37

100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

- a) I need to move the counters one place to the left, so  $37 \div 10 = 26$



Do you agree with Teddy? No

Explain your answer.

$$\underline{37 \div 10 = 3.7}$$

- b) How can you use a Gattegno chart to divide by 10?



# Hundredths as decimals

1 Complete the table.

Hundred square	Words	Fraction	Decimal
	thirty-six hundredths	$\frac{36}{100}$	0.36
	eighty-two hundredths	$\frac{82}{100}$	0.82
	twenty-seven hundredths	$\frac{27}{100}$	0.27
	twelve hundredths	$\frac{12}{100}$	0.12
	seven tenths	$\frac{7}{10}$	0.7
	three tenths	$\frac{3}{10}$	0.3

2 Draw decimal place value counters to represent the numbers.

a) 0.03      c) 0.63

b) 0.6      d) 0.36

3 The counters represent tenths and hundredths.

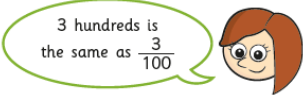
a) Match the decimals to the groups of counters.

0.04      0.4      0.14      0.41

b) Write each decimal as a fraction.

$0.04 = \frac{4}{100}$      
  $0.4 = \frac{4}{10}$      
  $0.14 = \frac{14}{100}$      
  $0.41 = \frac{41}{100}$

4



Is Rosie correct? No

Explain your answer.

$3 \text{ hundreds} = 300$        $3 \text{ hundredths} = \frac{3}{100}$

5

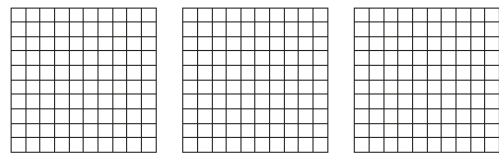
Match the decimals to the descriptions.

Some of the numbers can be described in two ways.

1.3      one tenth and three hundredths  
 0.03      thirty hundredths  
 0.3      one and three tenths  
 0.13      thirteen tenths  
             thirteen hundredths  
             three tenths  
             three hundredths

6

Shade the hundred squares to represent 12 hundredths in three different ways. *Various answers*



Compare answers with a partner.

What is the same? What is different?

7

Dora: 0.6 of the hundred square is shaded.  
 Ron: 6 tenths of the hundred square is shaded.  
 Whitney: 0.60 of the hundred square is shaded.  
 Jack: 60 hundredths of the hundred square is shaded.

Who do you agree with? All

Explain why.



# Dividing 1 and 2 digits by a hundred

1 a) Draw counters to show 8 on the place value chart.

Ones	Tenths	Hundredths
○○○○○○○○		

b) Complete the division.

$$8 \div 100 = 0.08$$

c) Draw counters to show your answer on the place value chart.

Ones	Tenths	Hundredths
		○○○○○○○○

What do you notice?

2 a) Draw counters to show 80 on the place value chart.

Tens	Ones	Tenths	Hundredths
○○○○○○○	○		

b) Complete the division.

$$80 \div 100 = 0.8$$

c) Draw counters to show your answer on the place value chart.

Tens	Ones	Tenths	Hundredths
		○○○○○	○○

What do you notice?

3 Complete the sentence.

To divide by 100 you move the counters 2 places to the right.

4 Complete the calculations.

$$a) 3 \div 100 = 0.03$$

$$d) 0.6 = 60 \div 100$$

$$b) 90 \div 100 = 0.9$$

$$e) 50 \div 100 = 0.5$$

$$c) 0.05 = 5 \div 100$$

$$f) 0.02 = 2 \div 100$$

5 Dora is working out  $48 \div 100$  using a place value chart.

Tens	Ones	Tenths	Hundredths
●●●●	●●●●		



To divide by 100 you move two places to the right, so  $48 \div 100$  is 40.08

Tens	Ones	Tenths	Hundredths
●●●●			●●●●

a) Explain the mistake that Dora has made.

She hasn't moved all of the counters.

b) Complete the division.

$$48 \div 100 = 0.48$$

6 This Gattegno chart shows the number 37

10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

a) Explain how you would work out  $37 \div 100$  using this chart.

Move the counters down 2

Compare answers with a partner.

b) Use the Gattegno chart to complete the division.

$$92 \div 100 = 0.92$$

c) Use the Gattegno chart to complete the division.

$$19 \div 100 = 0.19$$

7 Complete the calculations.

$$a) 31 \div 100 = 0.31$$

$$e) 0.29 = 29 \div 100$$

$$b) 60 \div 100 = 0.6$$

$$f) 58 \div 100 = 0.58$$

$$c) 0.85 = 85 \div 100$$

$$g) 0.5 = 50 \div 100$$

$$d) 0.01 = 1 \div 100$$

$$h) 0.3 = 30 \div 100$$

8 Complete the calculations.

$$a) 36 \div 10 = 3.6$$

$$b) 91 \div 10 = 9.1$$

$$36 \div 100 = 0.36$$

$$91 \div 100 = 0.91$$

$$36 \div 10 \div 10 = 0.36$$

$$91 \div 10 \div 10 = 0.91$$

What do you notice?

9

Dividing by 100 is always the same as dividing by 10 twice.



Do you agree with Amir? Yes

Explain your answer.

10 Roll two dice to make two 2-digit numbers.

Divide your numbers by 100. Record your answer. Roll again.

Here is an example.



$36 \div 100$  and  $63 \div 100$

$$\square \div 100 = \square \text{ and } \square \div 100 = \square$$

$$\square \div 100 = \square \text{ and } \square \div 100 = \square$$

What is the greatest possible answer you can get? 0.66

What is the smallest possible answer? 0.11

Compare answers with a partner.

Equivalent fractions (1)

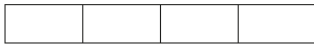


1 Shade the bar models to represent the fractions.

a) Shade  $\frac{1}{2}$  of the bar model.

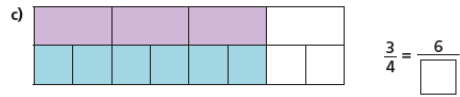
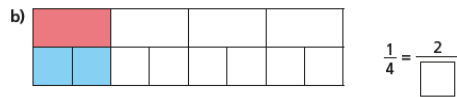
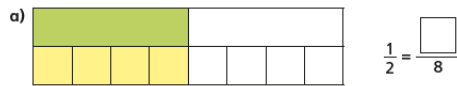


b) Shade  $\frac{2}{4}$  of the bar model.

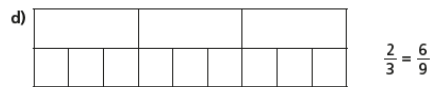
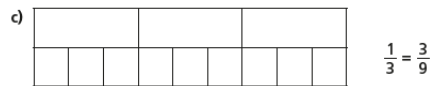
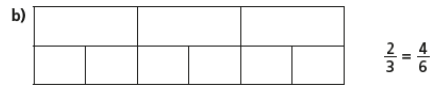
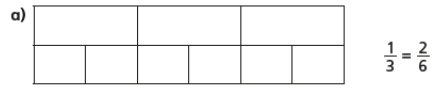


What do you notice?

2 Complete the equivalent fractions.



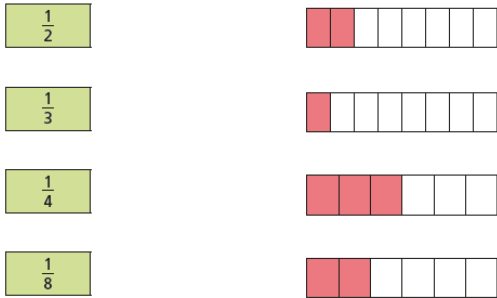
3 Shade the bar models to represent the equivalent fractions.



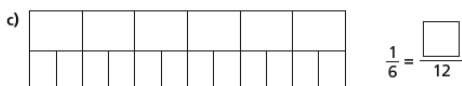
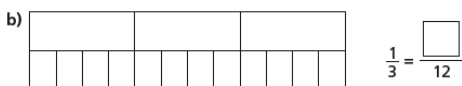
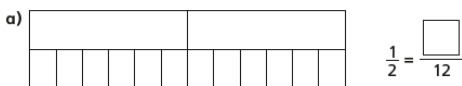
Can you find any more equivalent fractions using the bar models?



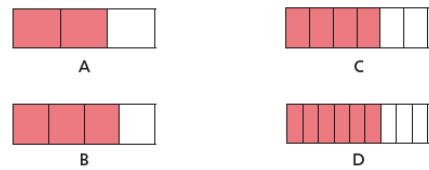
4 Match each bar model to its equivalent fraction.



5 Shade the bar models to complete the equivalent fractions.

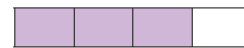


6 The bar models represent fractions.



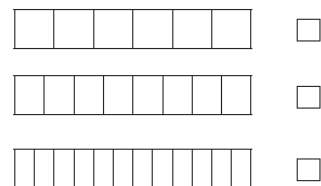
Which is the odd one out? \_\_\_\_\_  
Why do you think this?

7 This bar model represents  $\frac{3}{4}$



Tick the bar models that can be used to show a fraction that is equivalent to  $\frac{3}{4}$

Shade the bar models to support your answers.



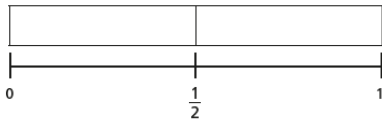
Talk to a partner about your answers.



# Equivalent fractions (2)

1 Shade the bar models to represent the fractions.

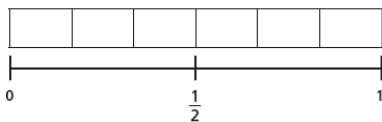
a) Shade  $\frac{1}{2}$  of the bar model.



b) Shade  $\frac{2}{4}$  of the bar model.



c) Shade  $\frac{3}{6}$  of the bar model.

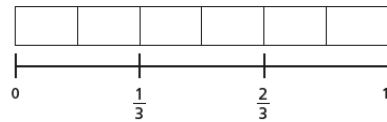


d) What do you notice?

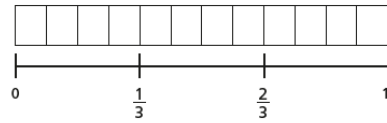
e) Write another fraction that is equivalent to  $\frac{1}{2}$

2 Shade  $\frac{2}{3}$  of each bar model.

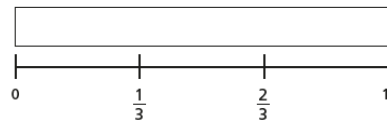
a)



b)



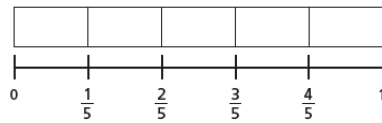
c)



d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{\square}{6} = \frac{8}{\square} = \frac{\square}{15}$$

3 Mo is finding equivalent fractions.

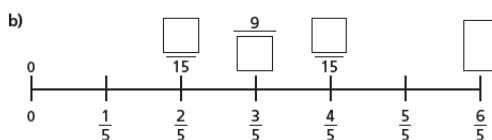
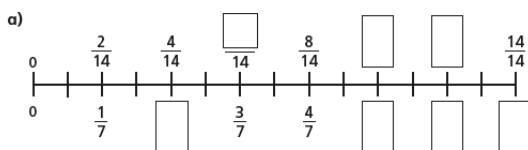


$\frac{6}{8}$  is equivalent to  $\frac{4}{5}$

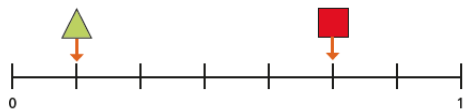
Do you agree with Mo? \_\_\_\_\_

Explain your answer.

4 Find the missing numbers.



5 Here is a number line.



a) What fraction is each shape pointing to?

$\triangle = \square$       $\square = \square$

b) A circle is halfway between the triangle and the square.

Draw the circle on the number line.

c)

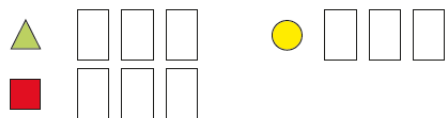
The circle is pointing to  $\frac{a}{21}$



Do you agree with Eva? \_\_\_\_\_

Show how you worked this out.

d) Write three equivalent fractions for each shape.



Compare answers with a partner.

# Equivalent fractions (3)



1 Shade the shapes to help you complete the equivalent fractions.



a)  $\frac{1}{3} = \frac{\square}{\square}$

b)  $\frac{1}{2} = \frac{\square}{\square}$

c)  $\frac{3}{4} = \frac{\square}{\square}$

d)  $\frac{3}{4} = \frac{\square}{\square}$

2 Use the fraction wall to complete the equivalent fractions.

$\frac{1}{3}$			$\frac{1}{3}$			$\frac{1}{3}$		
$\frac{1}{6}$	$\frac{1}{6}$		$\frac{1}{6}$	$\frac{1}{6}$		$\frac{1}{6}$	$\frac{1}{6}$	
$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$

a)  $\frac{1}{3} = \frac{\square}{6}$       d)  $\frac{2}{3} = \frac{6}{\square}$

b)  $\frac{1}{3} = \frac{\square}{9}$       e)  $\frac{4}{6} = \frac{6}{\square}$

c)  $\frac{2}{3} = \frac{4}{\square}$       f)  $\frac{1}{3} = \frac{\square}{6} = \frac{\square}{9}$

3 Draw a picture to show that one quarter is equivalent to two eighths.



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4 Use the fraction wall to decide whether the fractions are equivalent or not.

$\frac{1}{2}$					$\frac{1}{2}$				
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$		$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Complete the sentences using is or is not.

a)  $\frac{1}{2}$  \_\_\_\_\_ equivalent to  $\frac{2}{4}$

b)  $\frac{1}{4}$  \_\_\_\_\_ equivalent to  $\frac{2}{10}$

c)  $\frac{1}{2}$  \_\_\_\_\_ equivalent to  $\frac{5}{10}$

d)  $\frac{3}{10}$  \_\_\_\_\_ equivalent to  $\frac{2}{5}$

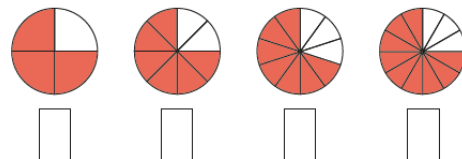
e)  $\frac{4}{5}$  \_\_\_\_\_ equivalent to  $\frac{8}{10}$

f)  $\frac{3}{4}$  \_\_\_\_\_ equivalent to  $\frac{4}{5}$

Write some sentences of your own and ask a partner to fill in the gaps.



5 a) What fraction of each shape is shaded?



b) Use the fractions in part a) to complete the sentences.

is equivalent to

is equivalent to

is not equivalent to

is not equivalent to

Compare answers with a partner.

6 The bar model represents  $\frac{1}{2}$

Write as many equivalent fractions as you can.

What is the same about all the fractions you have written?



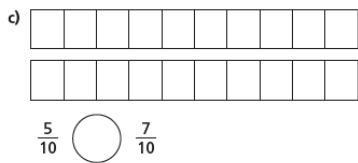
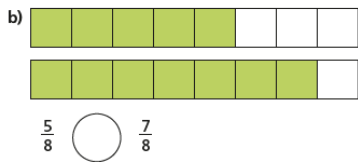
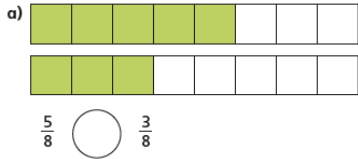
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# Compare fractions



1 Write  $<$ ,  $>$  or  $=$  to compare the fractions.  
Use the bar models to help you.



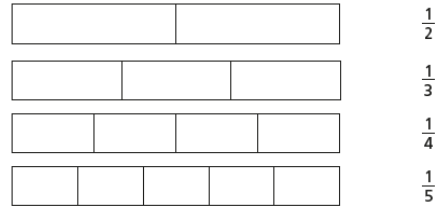
2 Write  $<$ ,  $>$  or  $=$  to compare the fractions.

a)  $\frac{1}{5}$  ○  $\frac{3}{5}$       d)  $\frac{6}{7}$  ○  $\frac{2}{7}$

b)  $\frac{2}{5}$  ○  $\frac{2}{5}$       e)  $\frac{6}{13}$  ○  $\frac{12}{13}$

c)  $\frac{2}{7}$  ○  $\frac{6}{7}$       f)  $\frac{13}{15}$  ○  $\frac{13}{15}$

3 Here are some bar models.



a) Shade the bar models to represent the fractions.

b) Write  $<$  or  $>$  to compare the fractions.

Use the bar models to help you.

$\frac{1}{2}$  ○  $\frac{1}{3}$        $\frac{1}{4}$  ○  $\frac{1}{3}$        $\frac{1}{5}$  ○  $\frac{1}{3}$

$\frac{1}{3}$  ○  $\frac{1}{2}$        $\frac{1}{4}$  ○  $\frac{1}{5}$        $\frac{1}{5}$  ○  $\frac{1}{2}$



4 What could the missing numerators and denominators be?  
Give three examples for each.

a)  $\frac{1}{5} < \frac{\square}{5}$        $\frac{1}{5} < \frac{\square}{5}$        $\frac{1}{5} < \frac{\square}{5}$

b)  $\frac{1}{5} < \frac{1}{\square}$        $\frac{1}{5} < \frac{1}{\square}$        $\frac{1}{5} < \frac{1}{\square}$

5 Jack is comparing fractions.

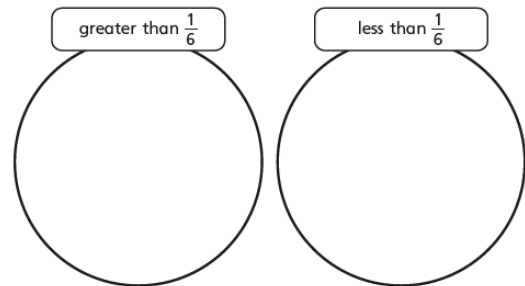
$\frac{1}{8}$  is greater than  $\frac{1}{4}$   
because 8 is greater than 4



Draw bar models to show that Jack is wrong.



6 Sort the fractions into the circles.



7 Complete the sentences using the word bank.

numerator    denominator    greater    smaller

a) When fractions have the same denominator, the greater the \_\_\_\_\_, the \_\_\_\_\_ the fraction.

b) When fractions have the same numerator, the greater the \_\_\_\_\_, the \_\_\_\_\_ the fraction.



# Answers for Year 3

## Equivalent fractions (1)

1 Shade the bar models to represent the fractions.

a) Shade  $\frac{1}{2}$  of the bar model.

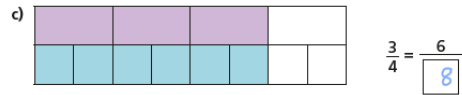
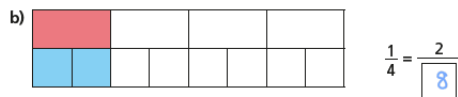
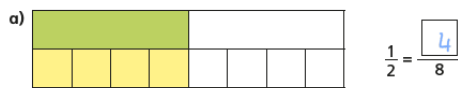


b) Shade  $\frac{2}{4}$  of the bar model.

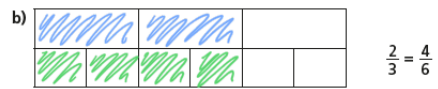
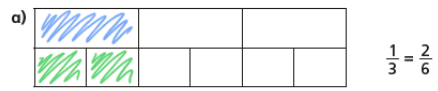


What do you notice?

2 Complete the equivalent fractions.

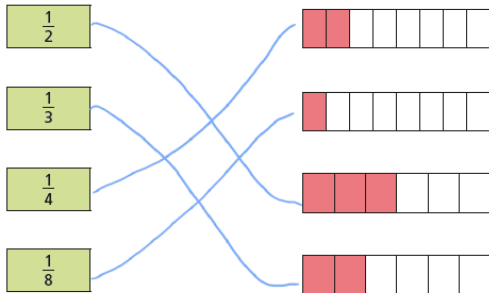


3 Shade the bar models to represent the equivalent fractions.

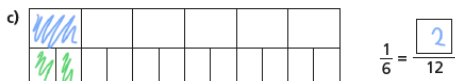
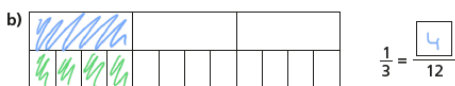


Can you find any more equivalent fractions using the bar models?

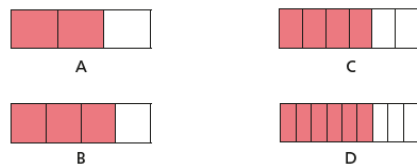
4 Match each bar model to its equivalent fraction.



5 Shade the bar models to complete the equivalent fractions.

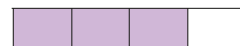


6 The bar models represent fractions.



Which is the odd one out? B  
Why do you think this?

7 This bar model represents  $\frac{3}{4}$



Tick the bar models that can be used to show a fraction that is equivalent to  $\frac{3}{4}$

Shade the bar models to support your answers.



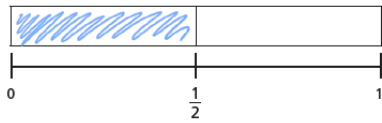
Talk to a partner about your answers.

## Equivalent fractions (2)

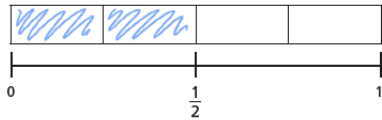


1 Shade the bar models to represent the fractions.

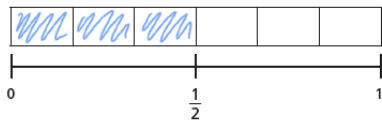
a) Shade  $\frac{1}{2}$  of the bar model.



b) Shade  $\frac{2}{4}$  of the bar model.



c) Shade  $\frac{3}{6}$  of the bar model.



d) What do you notice?

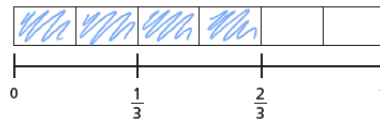
e) Write another fraction that is equivalent to  $\frac{1}{2}$  e.g.  $\frac{100}{200}$



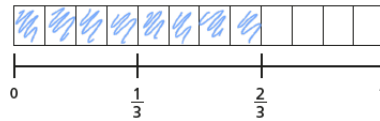
e.g.  $\frac{100}{200}$

2 Shade  $\frac{2}{3}$  of each bar model.

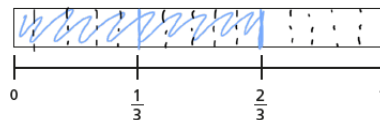
a)



b)



c)



d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{4}{6} = \frac{8}{12} = \frac{10}{15}$$

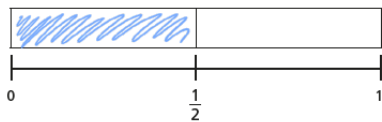


## Equivalent fractions (2)

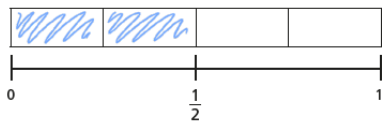


1 Shade the bar models to represent the fractions.

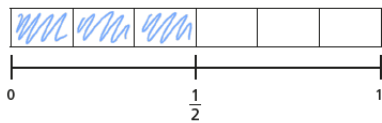
a) Shade  $\frac{1}{2}$  of the bar model.



b) Shade  $\frac{2}{4}$  of the bar model.



c) Shade  $\frac{3}{6}$  of the bar model.



d) What do you notice?

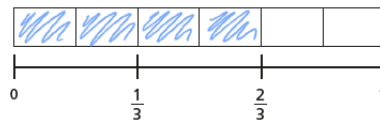
e) Write another fraction that is equivalent to  $\frac{1}{2}$  e.g.  $\frac{100}{200}$



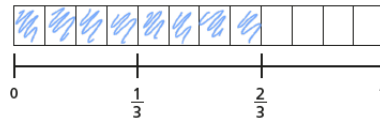
e.g.  $\frac{100}{200}$

2 Shade  $\frac{2}{3}$  of each bar model.

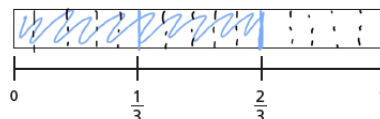
a)



b)



c)



d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{4}{6} = \frac{8}{12} = \frac{10}{15}$$





# Equivalent fractions (3)

1 Shade the shapes to help you complete the equivalent fractions.

a)  $\frac{1}{3} = \frac{2}{6}$

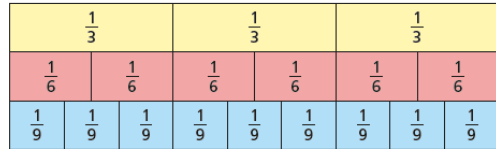
b)  $\frac{1}{2} = \frac{3}{6}$

c)  $\frac{3}{4} = \frac{6}{8}$

d)  $\frac{3}{4} = \frac{9}{12}$



2 Use the fraction wall to complete the equivalent fractions.



a)  $\frac{1}{3} = \frac{2}{6}$       d)  $\frac{2}{3} = \frac{6}{9}$

b)  $\frac{1}{3} = \frac{3}{9}$       e)  $\frac{4}{6} = \frac{6}{9}$

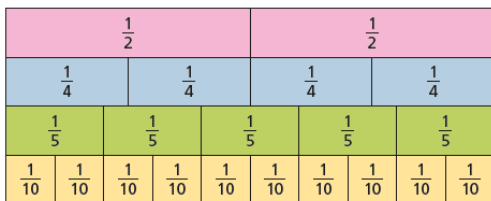
c)  $\frac{2}{3} = \frac{4}{6}$       e)  $\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$

3 Draw a picture to show that one quarter is equivalent to two eighths.

e.g.



4 Use the fraction wall to decide whether the fractions are equivalent or not.



Complete the sentences using is or is not.

a)  $\frac{1}{2}$  is equivalent to  $\frac{2}{4}$

b)  $\frac{1}{4}$  is not equivalent to  $\frac{2}{10}$

c)  $\frac{1}{2}$  is equivalent to  $\frac{5}{10}$

d)  $\frac{3}{10}$  is not equivalent to  $\frac{2}{5}$

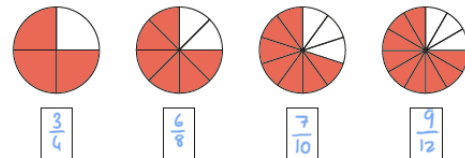
e)  $\frac{4}{5}$  is equivalent to  $\frac{8}{10}$

f)  $\frac{3}{4}$  is not equivalent to  $\frac{4}{5}$

Write some sentences of your own and ask a partner to fill in the gaps.



5 a) What fraction of each shape is shaded?



b) Use the fractions in part a) to complete the sentences.

e.g.  $\frac{3}{4}$  is equivalent to  $\frac{6}{8}$   
 $\frac{3}{4}$  is equivalent to  $\frac{9}{12}$   
 $\frac{6}{8}$  is not equivalent to  $\frac{7}{10}$   
 $\frac{7}{10}$  is not equivalent to  $\frac{3}{4}$

Compare answers with a partner.



6 The bar model represents  $\frac{1}{2}$

Write as many equivalent fractions as you can.

Various answers.

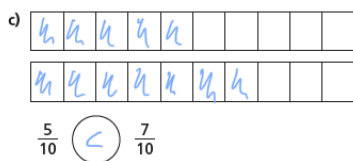
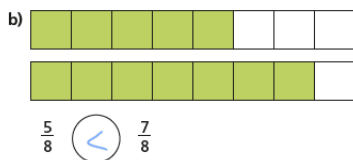
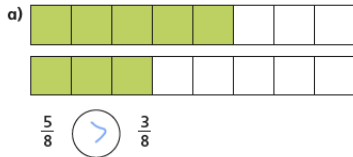
What is the same about all the fractions you have written?



# Compare fractions



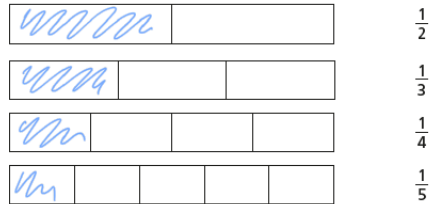
1 Write  $<$ ,  $>$  or  $=$  to compare the fractions.  
Use the bar models to help you.



2 Write  $<$ ,  $>$  or  $=$  to compare the fractions.

a)  $\frac{1}{5} < \frac{3}{5}$       d)  $\frac{6}{7} > \frac{2}{7}$   
 b)  $\frac{2}{5} = \frac{2}{5}$       e)  $\frac{6}{13} < \frac{12}{13}$   
 c)  $\frac{2}{7} < \frac{6}{7}$       f)  $\frac{13}{15} = \frac{13}{15}$

3 Here are some bar models.



a) Shade the bar models to represent the fractions.  
b) Write  $<$  or  $>$  to compare the fractions.  
Use the bar models to help you.

$\frac{1}{2} > \frac{1}{3}$      $\frac{1}{4} < \frac{1}{3}$      $\frac{1}{5} < \frac{1}{3}$   
 $\frac{1}{3} < \frac{1}{2}$      $\frac{1}{4} > \frac{1}{5}$      $\frac{1}{5} < \frac{1}{2}$

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4 What could the missing numerators and denominators be?  
Give three examples for each.

e.g. a)  $\frac{1}{5} < \frac{2}{5}$      $\frac{1}{5} < \frac{3}{5}$      $\frac{1}{5} < \frac{4}{5}$

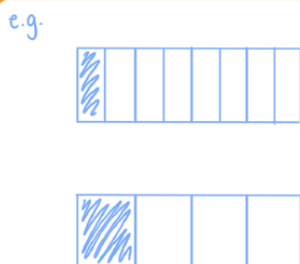
b)  $\frac{1}{5} < \frac{1}{4}$      $\frac{1}{5} < \frac{1}{3}$      $\frac{1}{5} < \frac{1}{2}$

5 Jack is comparing fractions.

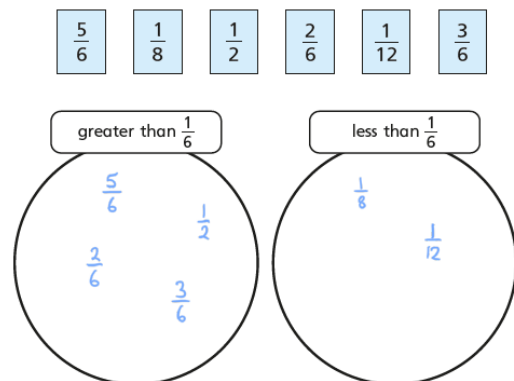
$\frac{1}{8}$  is greater than  $\frac{1}{4}$   
because 8 is greater than 4



Draw bar models to show that Jack is wrong.



6 Sort the fractions into the circles.



7 Complete the sentences using the word bank.

numerator    denominator    greater    smaller

a) When fractions have the same denominator, the greater the numerator, the greater the fraction.

b) When fractions have the same numerator, the greater the denominator, the smaller the fraction.



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# Use this time line to help you- read through and choose what you feel is important! Make your own time line.

## The timeline

This page relates to the interactive electricity timeline (a Flash movie). [Click here](#) to explore the timeline for yourself. The text from the timeline - showing the main events in the development of electricity - are shown below.

## Main events

### 600BC: Static electricity

Thales, a Greek, found that when amber was rubbed with silk it attracted feathers and other light objects. He had discovered static electricity. The Greek word for amber is 'ēlectron', from which we get 'electricity' and 'electronics'.

### 1600: William Gilbert invented the term electricity

William Gilbert, scientist and physician to Queen Elizabeth I, invented the term electricity (from the Greek word for amber, 'elektra'). He was the first person to describe the earth's magnetic field and to realise that there is a relationship between magnetism and electricity.

### 1705: Francis Hauksbee invented Neon Light

Francis Hauksbee created electrical effects by putting some mercury into a glass globe, pumping out the air and then spinning it. When he did this in the dark, and then rubbed the globe with his bare hand, it glowed. (He didn't realise it, but he had invented the neon light!)

### 1752: Franklin proved that lightning is a form of electricity

Benjamin Franklin, famous U.S. politician, flew a kite with a metal tip into a thunderstorm to prove that lightning is a form of electricity. He was very lucky he wasn't killed. Don't try this at home!

### 1700s: The Wimshurst machine was invented

The Wimshurst machine was invented. It is used to produce static electricity easily and reliably. Two parallel plates are rotated in opposite directions, which produces a charge around the edges of the plates. The charge is collected by a system of combs. Voltages as high as 50,000 volts can be produced, depending on humidity and other conditions, as well as sparks up to four inches long.

### 1780: Luigi Galvani's dead frog's legs

An Italian called Luigi Galvani discovered that when he touched a dead frog's leg with a knife, it twitched violently. Alessandro Volta later showed that this was because electricity is created when moisture (from the frog) comes between two different types of metal (the steel knife and a tin plate).

### 1800: Volta's Pile

Volta created the first simple battery. He used pure silver and zinc discs, sandwiched between muslin damped in a salt solution, developed from Galvani's earlier experiments with a frog's leg.

### 1800: Sir Humphry Davy discovered Electrolysis

Sir Humphry Davy discovered that when he passed an electric current through some substances they decomposed. This process later became known as electrolysis. Davy's experiments with electrolysis led to the discovery of a number of elements, including magnesium, calcium, strontium and barium.

### 1820: Hans Christian Oersted discovered magnetic fields caused by electricity

Hans Christian Oersted of Denmark found that when electricity flows through a wire, it produces a magnetic field that affects the needle of a nearby compass.

### 1821: Michael Faraday's discovery that led to the invention of electric motors

Michael Faraday discovered that when a magnet is moved inside a coil of copper wire, a tiny electric current flows through the wire. This discovery later led to the invention of electric motors.

### 1821: Thomas Johann Seebeck discovered Thermo-electricity

Thomas Johann Seebeck found that when the junction of certain metals is heated, electricity flows in thermo-electricity.

### 1826: André Ampère explained the electro-dynamic theory

André Ampère published his theories about electricity and magnetism. He was the first person to explain the electro-dynamic theory. The unit of electric current was named after Ampère.

### 1827: Georg Ohm published his complete mathematical theory of electricity

German college teacher Georg Ohm published his complete mathematical theory of electricity. The unit of electrical resistance was later named after him.

### **1829: Joseph Henry's discovery into electromagnetism**

Joseph Henry showed that a wire wrapped in coils produces a greater electromagnetism than a straight one.

### **1830: Joseph Henry discovered the principles of the dynamo**

Joseph Henry discovered the principles of the dynamo.

### **1831: Michael Faraday demonstrated electromagnetic induction**

Michael Faraday demonstrated electromagnetic induction by passing a magnet through a coil of wire.

### **1831: The First Telegraph Machine**

Charles Wheatstone and William Fothergill Cooke created the first telegraph machine.

### **1834: Charles Wheatstone measured the velocity of electricity**

Charles Wheatstone used a revolving mirror and four miles of wire to measure the velocity of electricity.

### **1838: Samuel Morse invented Morse Code**

At an exhibition in New York, Samuel Morse demonstrated sending 10 words a minute by his new telegraph machine. He used a system of dots and dashes, which later became standard throughout the world, known as Morse code.

### **1870s: Thomas Edison built a DC electric generator**

Thomas Edison built a DC (direct current) electric generator in America. He later provided all of New York's electricity.

### **1876: Alexander Graham Bell invented of the telephone**

Alexander Graham Bell, inventor of the telephone, used electricity to transmit speech for the first time.

### **1878: Joseph Swan demonstrated the first Electric Light**

Joseph Swan, a British scientist, demonstrated the first electric light with a carbon filament lamp. A few months later, Thomas Edison made the same discovery in America.

### **1880s: Nikola Tesla developed an AC motor**

Nikola Tesla developed an AC (alternating current) motor and a system of AC power generation. Edison saw Tesla's system as a threat to his DC supply and spread stories that it wasn't safe. But, after Tesla's system was used to power 100,000 electric lights at Chicago's World Fair in 1893, AC became the established power supply in the USA.

### **1880s: Nikola Tesla invented the Tesla Coil**

Nikola Tesla used the 'Tesla coil' to step up ordinary household current to produce extremely high frequency current. Tesla used this high frequency current to develop some of the first neon and fluorescent lights.

### **1881: The first public electricity supply**

The first public electricity supply was generated in Godalming, Surrey using a waterwheel at a nearby mill.

### **1883: Magnus Volks built the first electric railway**

The first electric railway opened on Brighton seafront, built by electrical engineer Magnus Volks. The Volks Railway, built just for pleasure rides, is one mile long and still runs during the summer season.

### **1884: Charles Parsons built his first turbine**

Charles Parsons built his first turbine. This is a type of engine which is operated by jets of high pressure gases. This type of engine was later developed to drive the propellers of boats, including the Titanic.

### **1886: Heinrich Hertz produced and detected electric waves**

Heinrich Hertz produced and detected electric waves in the atmosphere.

### **1890: Turbine driven generators**

Turbine driven generators were introduced to produce electricity.

### **1892: Hendrik Lorentz published his electron theory.**

Dutch physicist Hendrik Lorentz published his electron theory.

### **1895: The first electric hand drill**

The first electric hand drill became available, invented by Wilhelm Fein.

### **1895: Discovery of X-rays**

The German physicist Wilhelm Roentgen discovered invisible rays that made a distant screen glow and passed through objects. These were X-rays.

### **1896: Nikola Tesla's hydroelectric power generators**

Nikola Tesla's hydroelectric power generators at Niagara Falls came into operation. Within a few years, Tesla's generators at Niagara Falls were supplying electricity to New York City for the elevated railways, the subways and even the lights on Broadway.

### **1897: Marconi sends radio message**

Guglielmo Marconi sends a radio message from The Isle of Wight to Poole (20 miles away). Later he sends a message across the Atlantic.

### **1905: Albert Einstein and photovoltaic cells**

Albert Einstein demonstrated that light energy could be used to produce electricity and the idea behind photovoltaic cells was born.

### **1918-19: Washing machines and refrigerators**

Electric washing machines and refrigerators first became available.

### **1926: First National Grid was introduced**

Electricity Supply Act and the first National Grid was introduced.

### **1930-40s: Hydro-electric power stations**

Hydro-electric power stations were built in Scotland and Wales, but the majority of electricity generation was from burning coal.

### **1930-40s: Electrical household appliances introduced**

Mains powered radios, vacuum cleaners, irons and fridges were becoming part of every household.

### **1936: John Logie Baird pioneered the television.**

### **1956: First large-scale nuclear power station**

The world's first large-scale nuclear power station opened at Calder Hall in Cumbria. The reactors were a prototype of the Magnox gas cooled reactor.

### **1960s: Advanced gas cooled reactors**

The UK decided to develop advanced gas cooled reactors to succeed the earlier Magnox stations. Around the same time, France and the USA decided to adopt water cooled reactor technology.

### **1994: The UK's first pressurised water reactor**

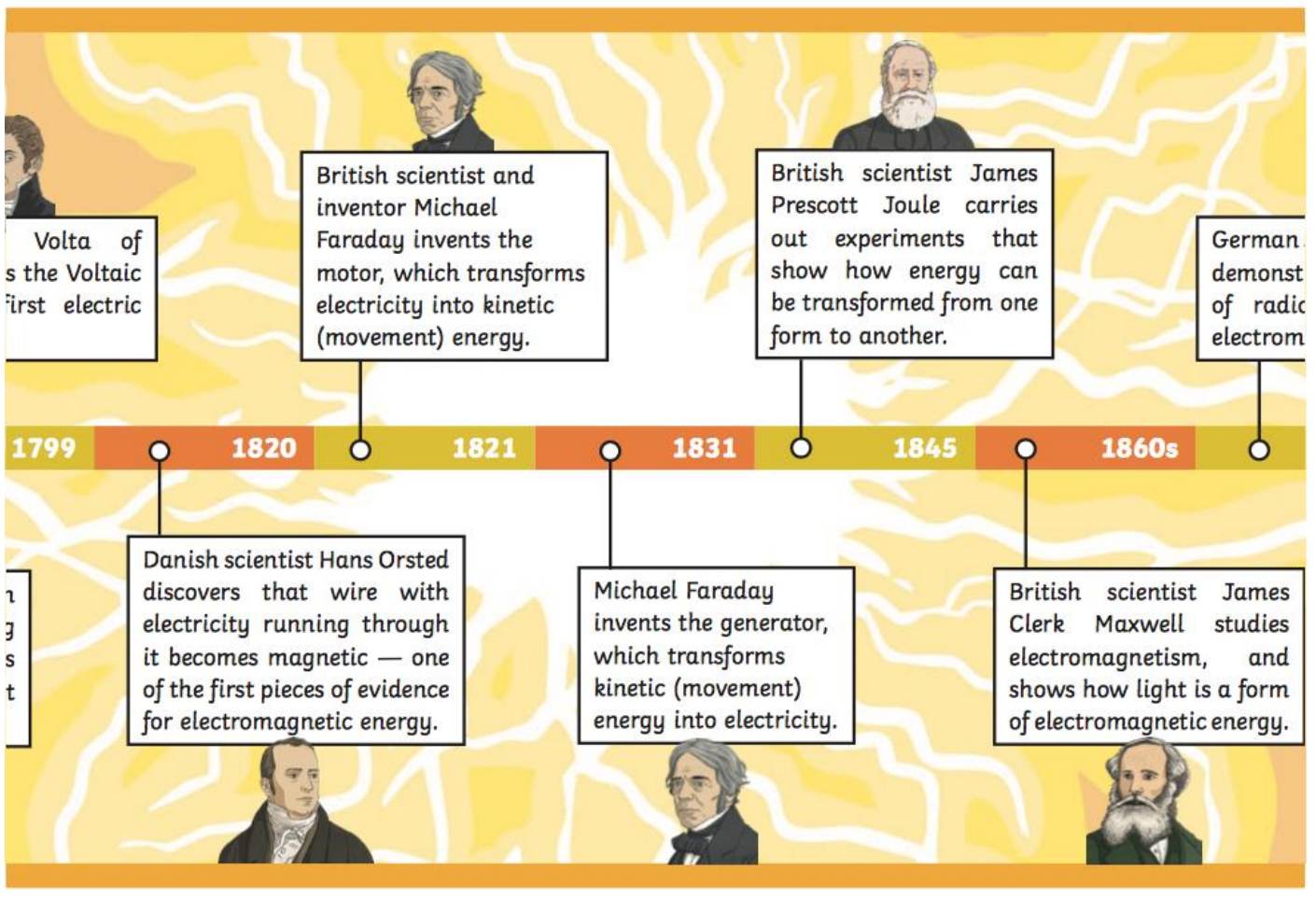
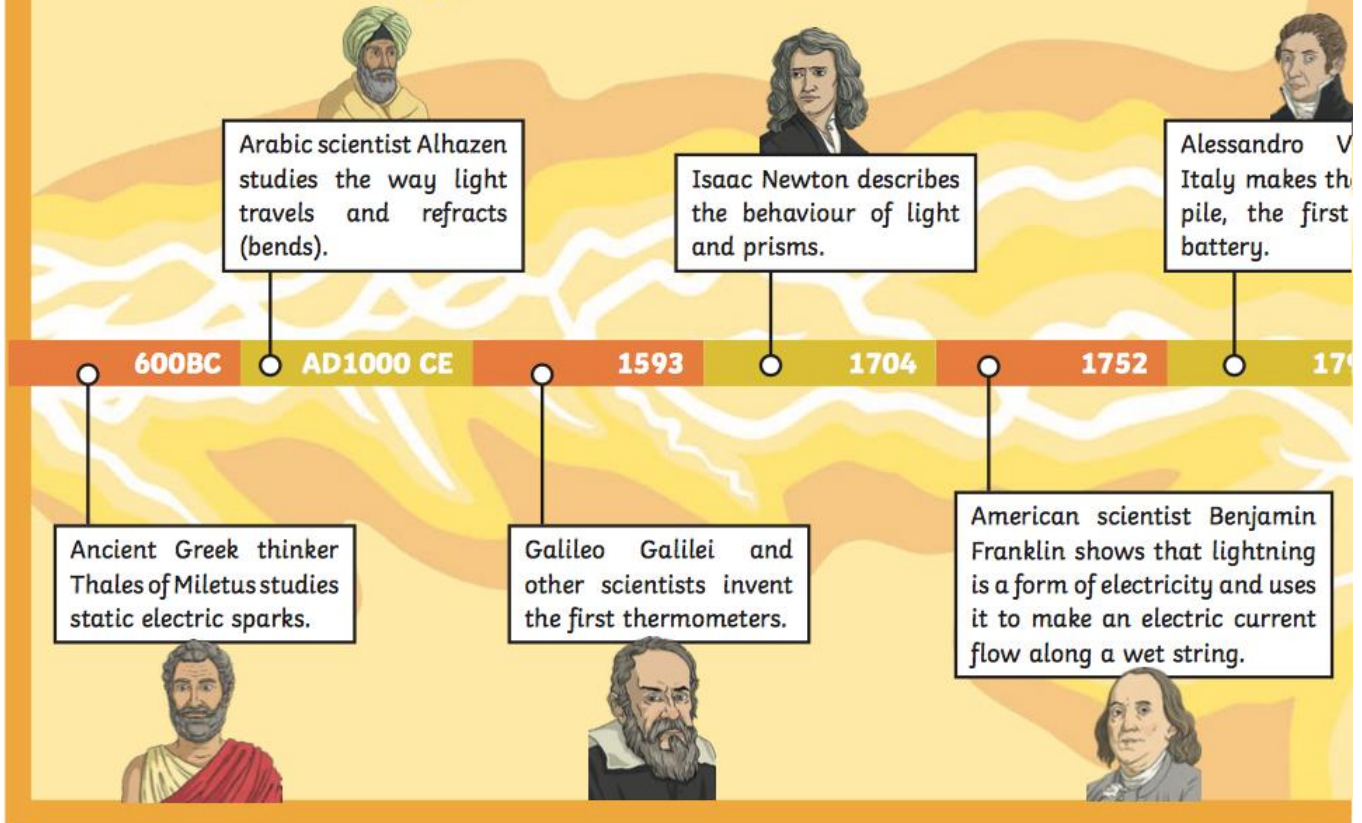
The UK's first pressurised water reactor (PWR) was opened at Sizewell B in Suffolk. It had taken 7 years to build, after the largest ever public enquiry in the UK. No further nuclear reactors have been built in the UK since then.

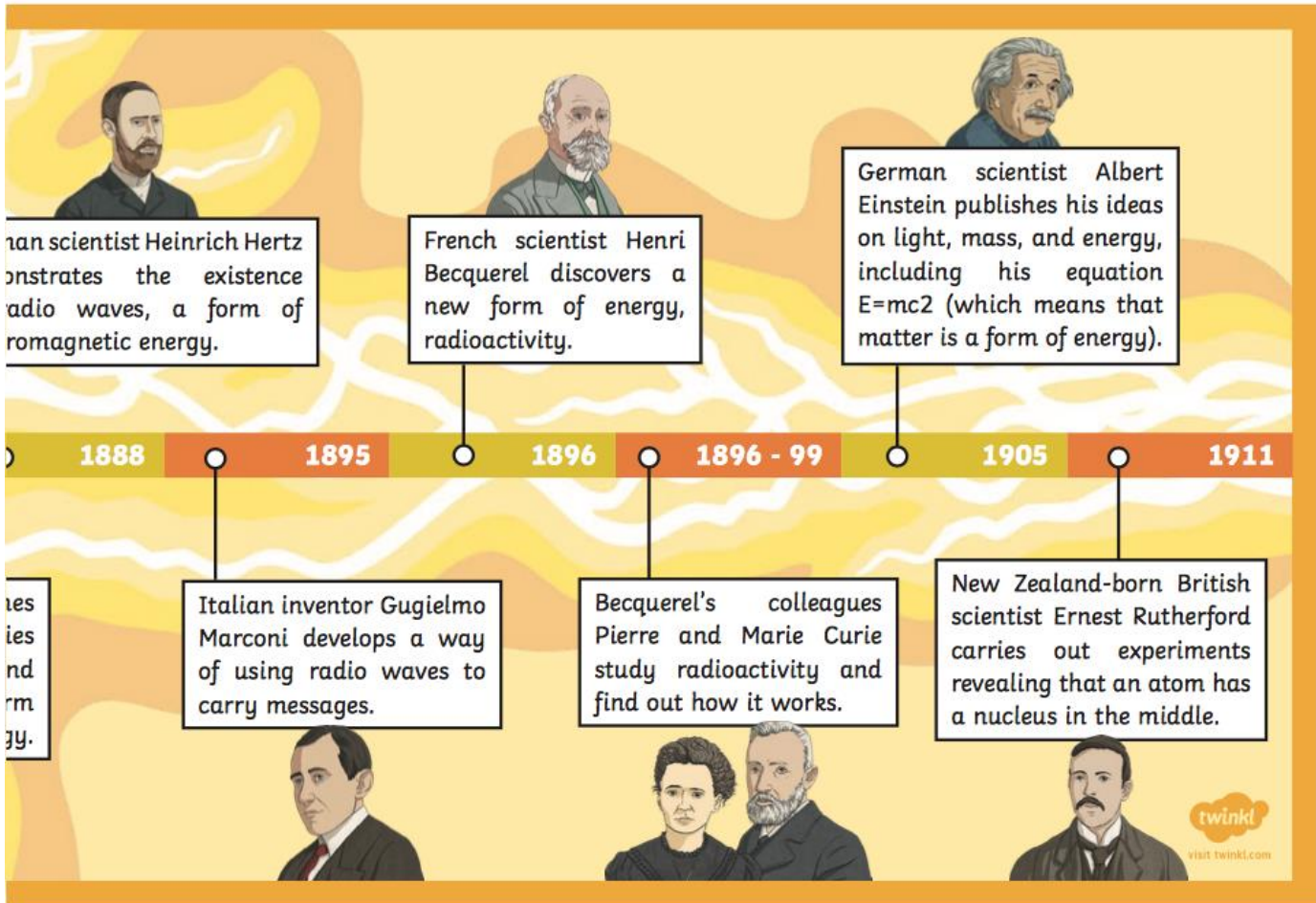
### **2000: The world's first commercial wave power station**

The world's first commercial wave power station on the Scottish island of Islay began to generate electricity. Devices are placed on the shoreline or out at sea that use wave motion to compress air to drive a turbine or hydraulic pumps. The station is called LIMPET (Land-Installed Marine-Powered Energy Transformer) and can provide enough electricity for about 400 homes.



# Awesome Energy







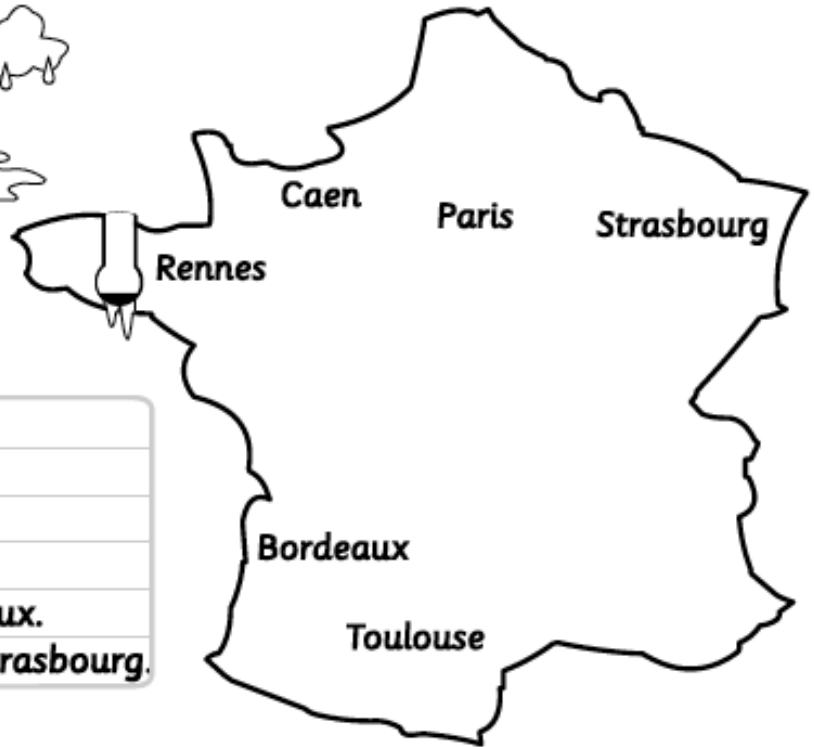


# La Météo

Activity Sheet

Name: \_\_\_\_\_ Class: \_\_\_\_\_

Dessine le symbole correct à côté de chaque ville.



- ① ~~Il fait froid à Rennes.~~
- ② Il neige à Paris.
- ③ Il pleut à Caen.
- ④ Il fait soleil à Toulouse.
- ⑤ Il fait du vent à Bordeaux.
- ⑥ Il fait du brouillard à Strasbourg.

Beau ou mauvais? Ecris 'Il fait beau' ou 'Il fait mauvais' pour chaque dessin.

1
  
  

Il fait mauvais.

2

3

4

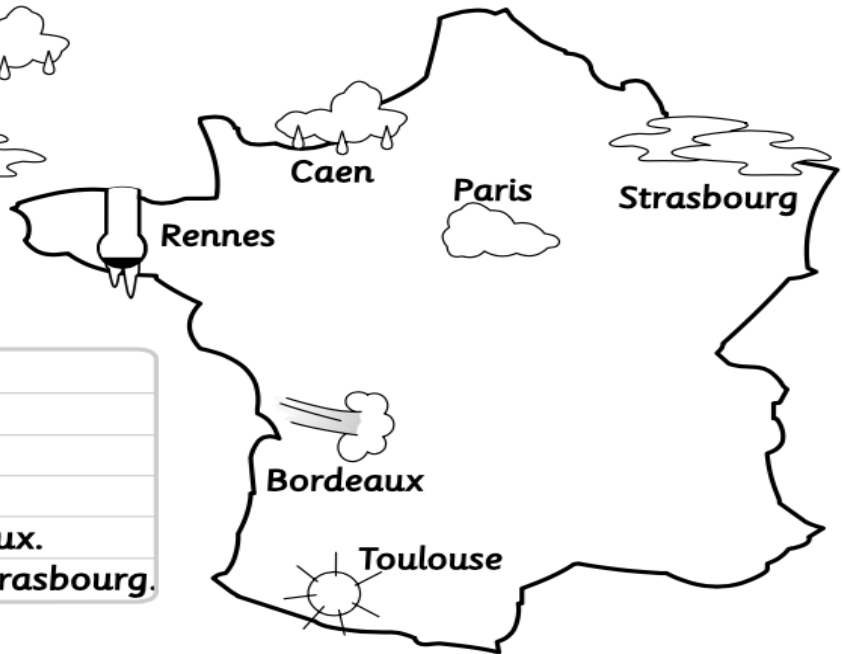
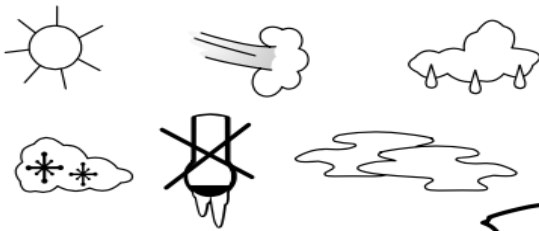
5

5

# French Answers!!

Name: \_\_\_\_\_ Class: \_\_\_\_\_

Dessine le symbole correct à côté de chaque ville.



- ① ~~Il fait froid à Rennes.~~
- ② Il neige à Paris.
- ③ Il pleut à Caen.
- ④ Il fait soleil à Toulouse.
- ⑤ Il fait du vent à Bordeaux.
- ⑥ Il fait du brouillard à Strasbourg.

Beau ou mauvais? Ecris 'Il fait beau' ou 'Il fait mauvais' pour chaque dessin.

1

Il fait mauvais.

2

Il fait beau.

3

Il fait mauvais.

4

Il fait mauvais.

5

Il fait beau.

## RE- Pay it forward

**RE: What can we learn from religions about deciding what is right and wrong?**



### Pay it Forward

'Pay it Forward' is the idea of doing unselfish acts of kindness, and asking the recipients to pay the kindness forward instead of paying it back. This is a Global concept and something that we have seen a lot of recently during the Lockdown period that we find ourselves in.

**TASK: Look at the Global Pay it Forward Day website**

**<https://globalpayitforwardday.com/> and complete the following thinking about the current Lockdown situation.**

(A) One example of a kind deed I could do for someone is...

---

---

(B) If someone did this for me, it would make me feel...

---

---

(C) Three different ways in which I could 'pay forward' this kindness to others might be by...

1. 

---

---

Monday

## What is a non-chronological report?

**A non-chronological report is a non-fiction report which is not written in time order.**

The **features of a non-chronological report** include some of the following:

- An eye-catching heading in a large font
- An introductory **paragraph**
- Text split up into paragraphs and each paragraph on a different aspect of the subject
- Sub-headings for each paragraph
- Usually written in **present tense**
- Pictures of the subject
- Captions under each picture to explain what is in the picture
- Diagrams with labels
- Lists of facts in bullet points
- Graphs or charts showing information about the subject
- Boxes containing interesting individual facts to grab the attention of the reader
- Technical vocabulary in bold, possibly with a glossary at the end

## Planning Format

Title of Report	
Introduction	
The History of Electricity	
How we Use Electricity Now	
The Future of Electricity	
Summary	

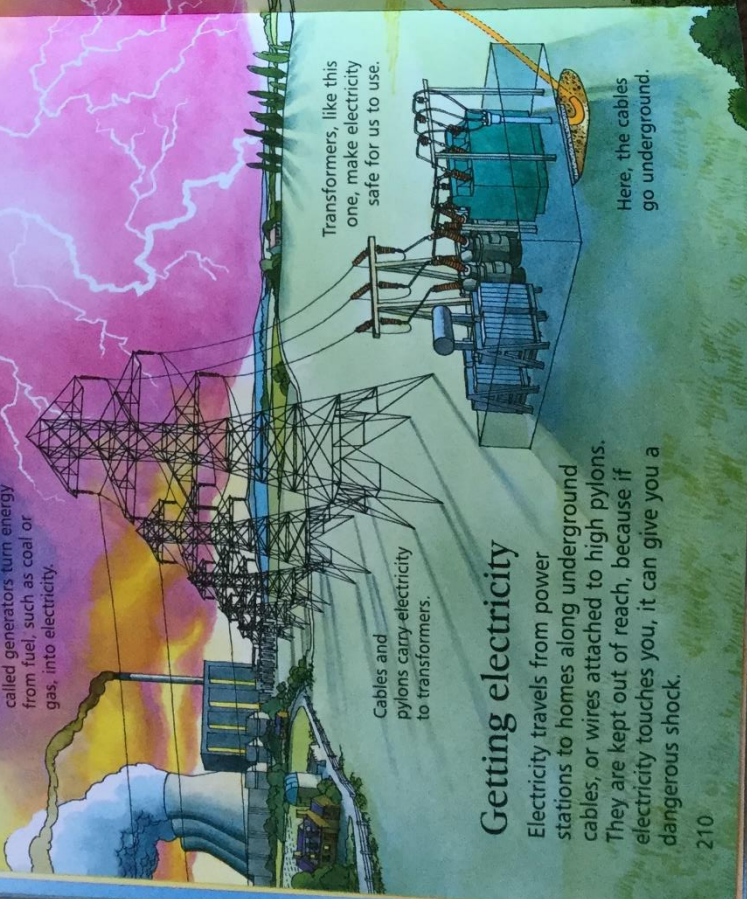


# Electricity

Electricity is a very useful form of energy. It can easily be changed into other forms of energy, such as light and heat. It makes lights, televisions and computers work. Most of the electricity we use comes from power stations.

In power stations, machines called generators turn energy from fuel, such as coal or gas, into electricity.

Lightning is a kind of static electricity that is made when water molecules inside clouds rub together during storms.



Cables and pylons carry electricity to transformers.

## Getting electricity

Electricity travels from power stations to homes along underground cables, or wires attached to high pylons. They are kept out of reach, because if electricity touches you, it can give you a dangerous shock.

## Using electricity

When an appliance, such as a toaster, is plugged in, it is connected to the electricity supply. Electricity flows into it and gives it the energy to work. Plastic does not conduct, or carry, electricity well, so it is used to cover electrical appliances. This stops you from getting a shock.

Can you guess which of these uses the most electricity in one minute?



Answer: the hairdryer



### Internet links

- Scan the code to watch a video clip about static electricity.
- For more links, go to [www.usborne.com/quicklinks](http://www.usborne.com/quicklinks)

## Static electricity

Static electricity is a form of electricity that builds up in some substances when they are rubbed together. It can make objects stick to each other. Do you ever feel a small shock when you touch metal? This is caused by a small build-up of static in your body as you move around.

### Make static electricity

You will need:  
a balloon; a sweater



1. Blow up a balloon, and rub it up and down on a sweater a few times.
2. Gently put the balloon on the wall. Static electricity makes it stick there.



Transformer

The orange and yellow lines show the route the cables take underground.

Electricity flows from the underground cables into homes.

Wednesday / Thursday

Paragraphing is about arranging a piece of writing in order to make it clear and easy to read. **The first sentence of a paragraph is known as the 'topic' sentence. It is the main point of, or introduction to, your paragraph.** The next few sentences strengthen, draw out, or support, your point, so they must be about the same topic. The final sentence briefly summarises your topic and leads into the next paragraph. Changes of topic, mood, or speaker always mean you should begin a new paragraph.

Paragraphs also make your writing easier to read. Have you ever been faced with a long block of text with no paragraphs? Just looking at the wall of words makes you less inclined to read it. Whereas adding paragraphs means you can have a breather between each one.

Examples of Topic Sentences – Does it tell you what each paragraph would be about?

Bees are excellent pollinators.

School lunches are an important part of everyday school life.

The UK consists of four countries: Northern Ireland, Scotland, Wales and England.

Climate change is having an affect on the weather around the world.

**Information is then added to the paragraph to build on the **topic sentence** and give the reader more detail.**

**Electricity is an important feature of our modern day homes.** Every day, we rely on electricity in order to wash, cook, heat our homes and to provide us with entertainment. How many electrical items have you used today? From kettles to laptops, light bulbs to hairdryers – we are surrounded by electrical items in our homes. Although many tasks would be possible without electricity, the use of electricity in our homes certainly provides us with easy and efficient ways to meet our needs.