Kingfisher Class Home- Learning- Summer 2- Week 5- Maths

Algebra Week

Monday:

Maths Starter:

1) What is the value of the digit 7 in the number 10.75?

2) What is 36×10?

3) Work out $\frac{1}{3} + \frac{5}{9}$

4) Write down a 4-digit number with 7 in the hundreds column.

1 Whitney makes a pattern of triangles using sticks.
Complete the table below.

Number of triangles	1	2	3	4	5	10	
Number of sticks							90

2 Complete the tables.

To find the number of wheels, you multiply the number of bicycles by 2

a)

Number of bicycles	1	2	5			16
Number of wheels	2			18	24	

b)

Number of ants	1	2	5			16
Number of legs		12		18	24	

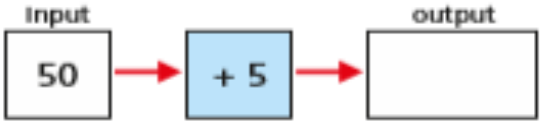
Explain how to find the number of legs.

_____

_____

3 Calculate the outputs for the function machines below.

a)



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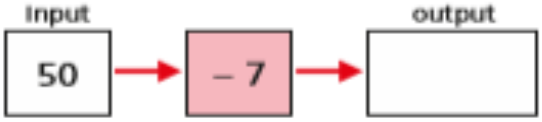

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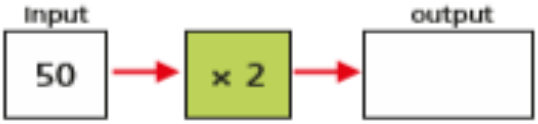

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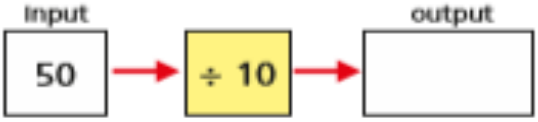
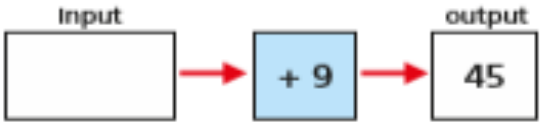


4 Calculate the inputs for the function machines.

a)



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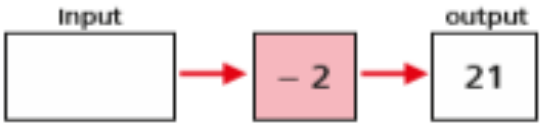

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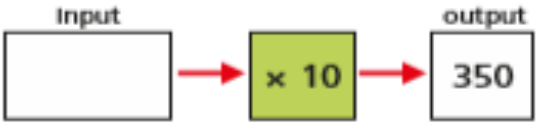
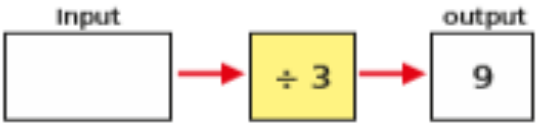
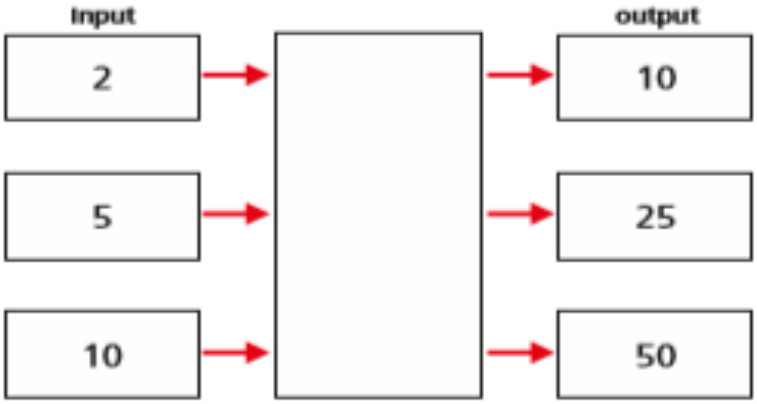


d)

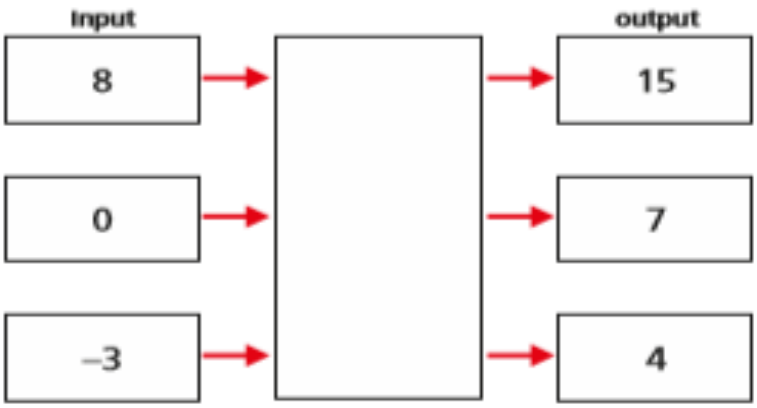


5 Write the missing functions in the function machines.

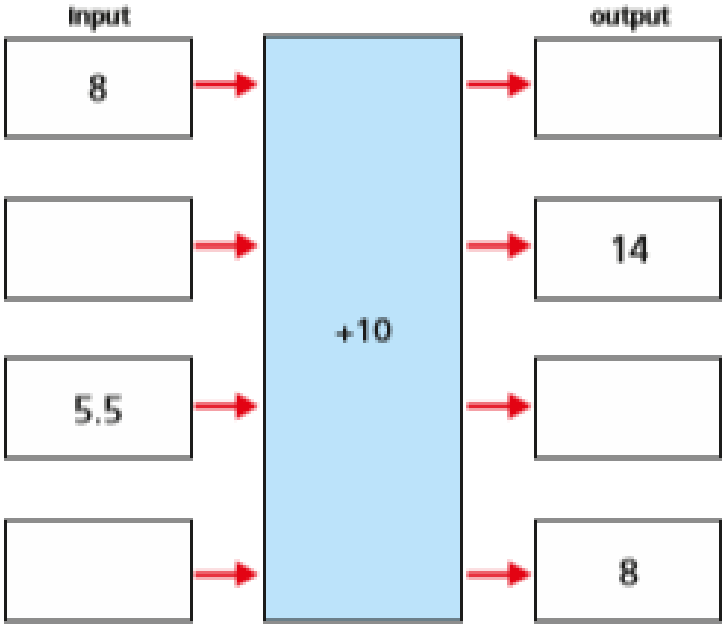
a)



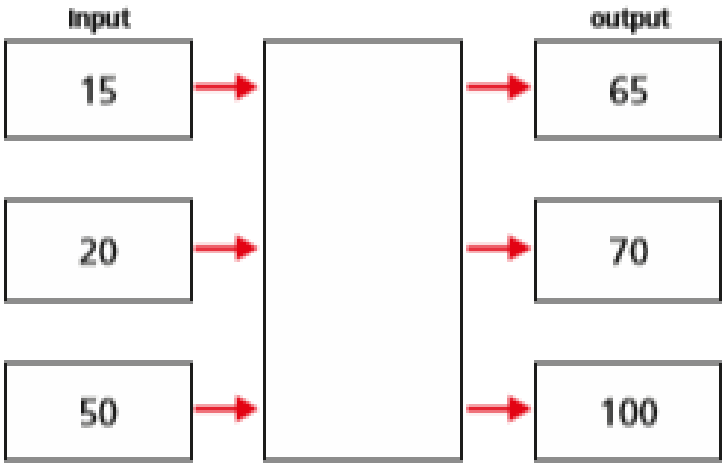
b)



6 Calculate the missing inputs and outputs for the function machine.



7 Look at the function machine.

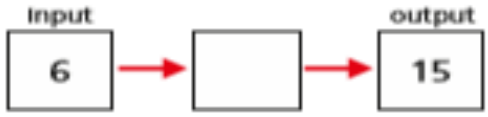


a) What is the output, if the input is zero?

b) What is the input, if the output is zero?

Monday Maths Extension (optional):

8 Here is a function machine.



The rule is add 9

Dora

The rule is multiply by 2.5

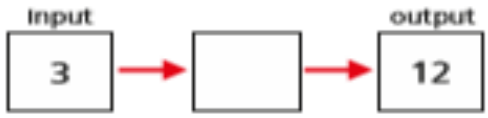
Dexter

Who do you agree with? _____

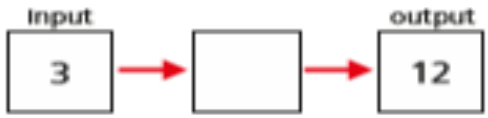
Explain your answer.

9 In a function machine, if the input is 3 and the output is 12, what could the function be?

Write two different functions and complete the table of outputs for each function.



Input	3	4	5	10	20	100
Output	12					



Input	3	4	5	10	20	100
Output	12					

Tuesday:

Maths starter:

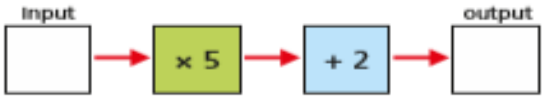
1) What is the value of the digit 8 in the number 82.34?

2) What is 17 × 100?

3) Work out $\frac{3}{5} + \frac{7}{10}$

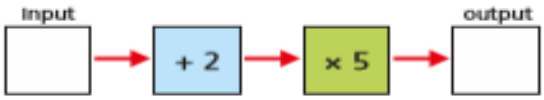
4) Which is greater 5 × 12 or 6 × 11?

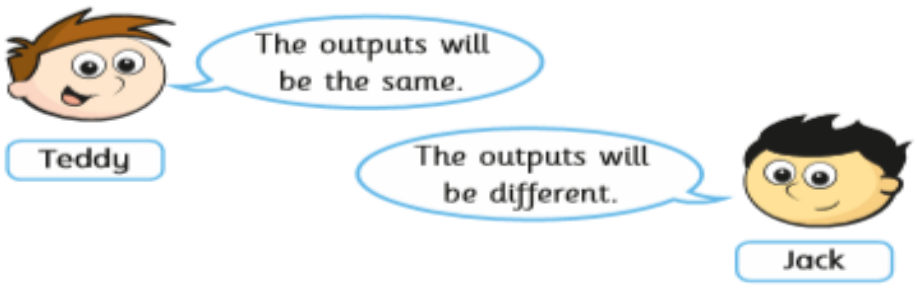
1 Use the function machine to complete the table.



Input	1	2	3	5	10	50
Output						

2 Here is the same function machine with the steps in the reverse order.





Explain to a partner who you think is correct.

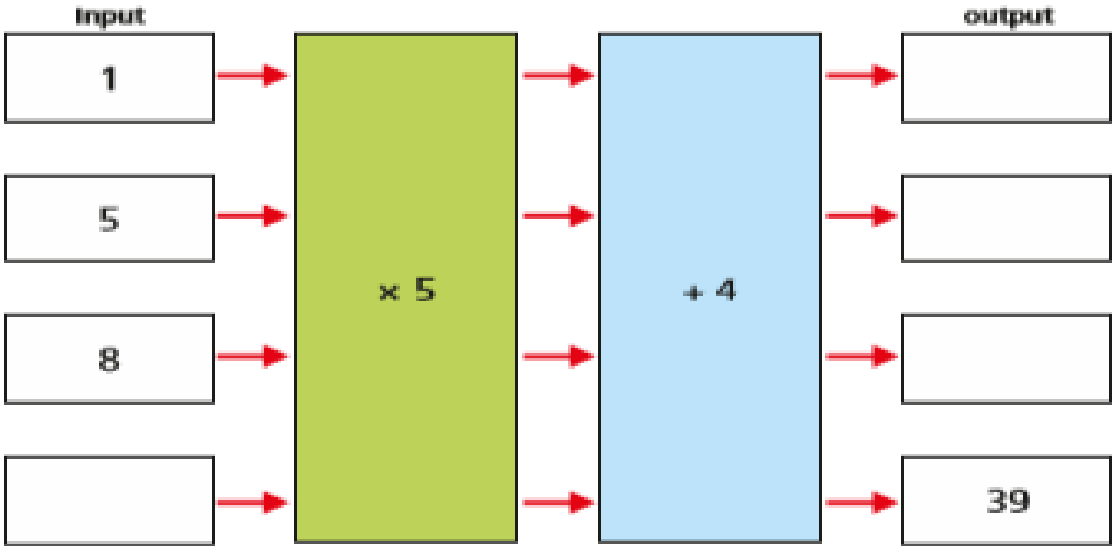
Use the function machine to complete the table.

Input	1	2	3	5	10	50
Output						

Who is correct? _____

3 Work out the missing outputs and inputs.

a)



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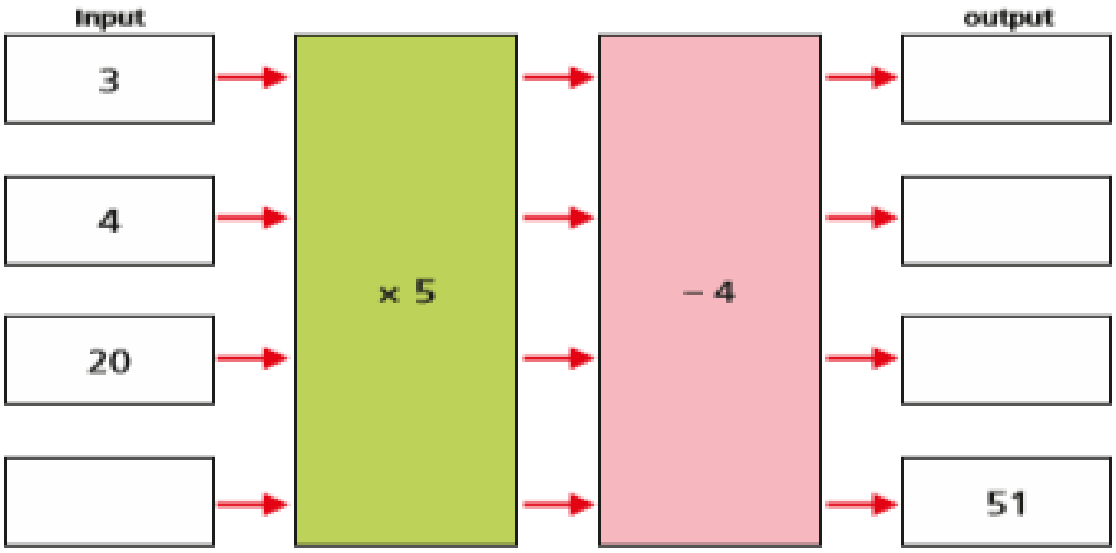

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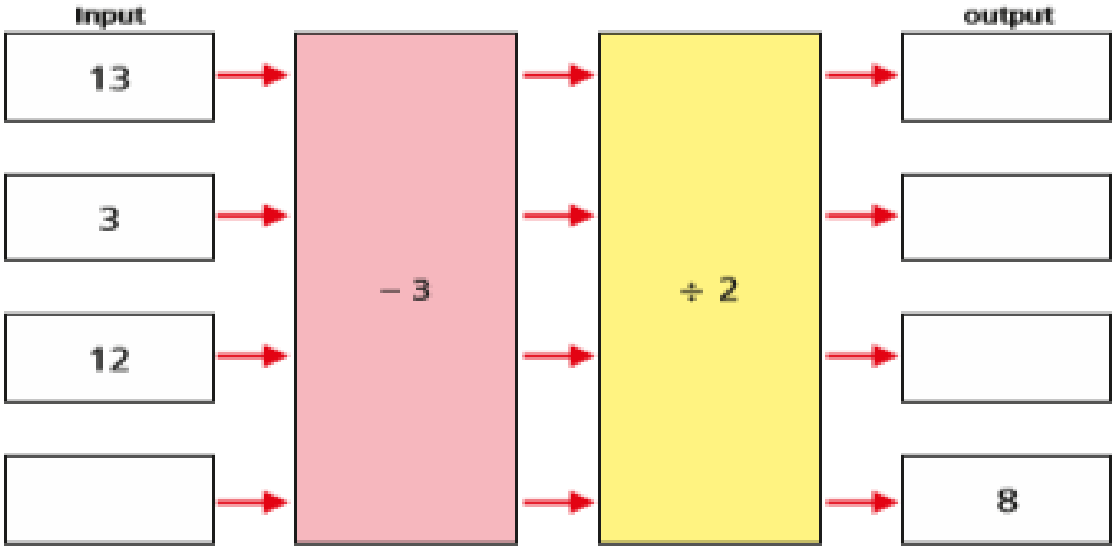
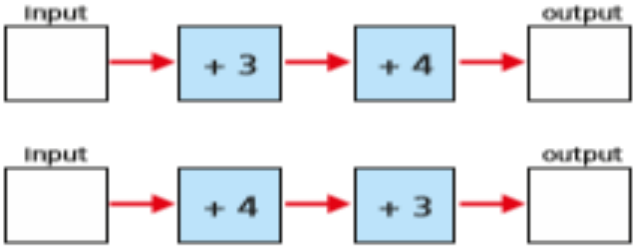


4 Tick the pairs of function machines that will give the same outputs for a given input.

a)



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b)

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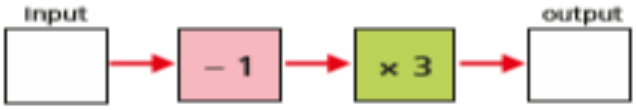

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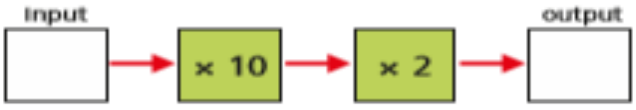

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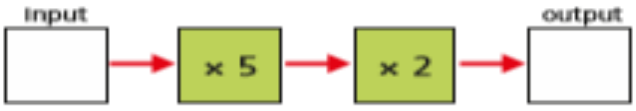
Explain your reasoning to a partner.

5 Here are some 2-step function machines.

For each machine, write a single step that would give the same output.

Check your answers by inputting values.

a)



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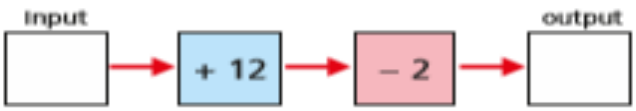
b)



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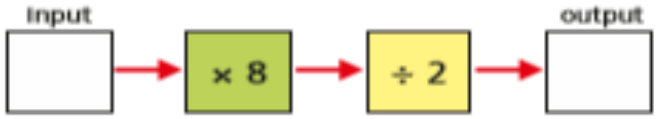
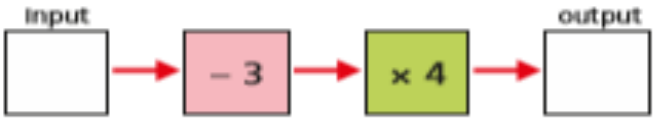
Tuesday Maths Extension (optional):

c) 

Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.

6 Here is a function machine.



a) Complete the table.

Input	10	3		
Output			40	280

b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

7 Mr Hall and Mrs Rose order some photos online.

a) Mr Hall orders 16 photos.

How much does he pay?

b) Mrs Rose pays £6.05

How many photos did she order?

Wednesday:

Maths Starter:

1) What is 3.2×10?

2) Multiply 1.75 by 10

3) Work out $1\frac{1}{3} + 2\frac{5}{9}$

4) Calculate 1,765 kg + 218 kg

1 Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1

 $= x$  $= 1$

Write algebraic expressions to describe the sets of cubes.

The first one has been done for you.

a)  $2x + 3$

b)  _____

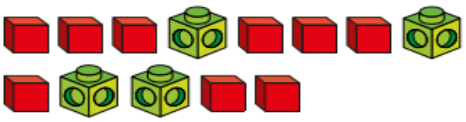
c)  _____

d)  _____

e)  _____

f)  _____

g)  _____

h)  _____

3 Use cubes to help you simplify the following expressions.

The first one has been done for you.

a) $2y + 5 + y$

$3y + 5$

b) $3a + 2 + a + a$

c) $6p + 2 - 2p$

d) $m + 4 + 3m - 3$

4 Complete the function machines.

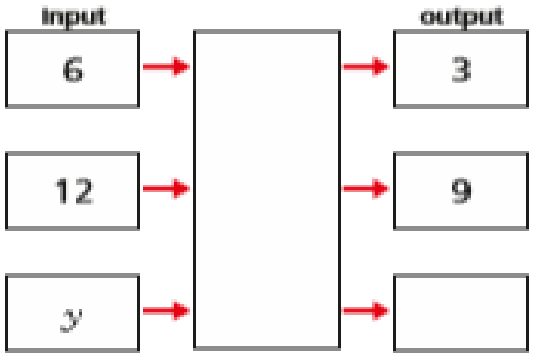
a)

input		output
2	→	6
7	→	11
y	→	

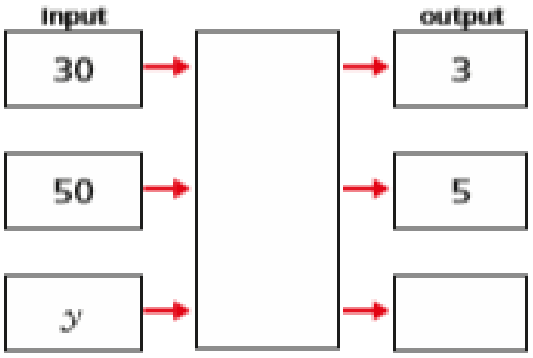
b)

input		output
2	→	4
5	→	10
y	→	

c)



d)



5 Match each statement to the equivalent algebraic expression.

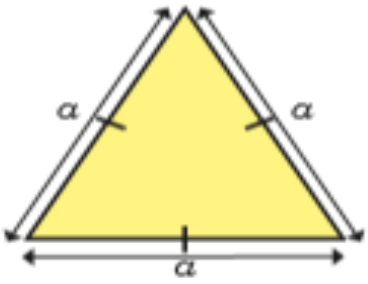
Write the missing statements.

5 more than y	$2y$
y less than 5	$y - 5$
y multiplied by 5	$5 - y$
y divided by 5	$y + 5$
double y	$5y$
	y^2
	$\frac{y}{5}$

Wednesday Maths Extension (optional)

6 Write an algebraic expression to represent the perimeter of each shape.

a)



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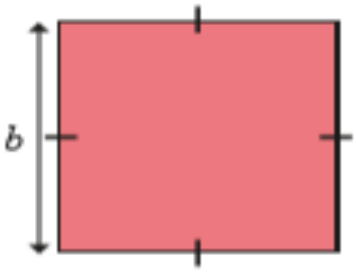

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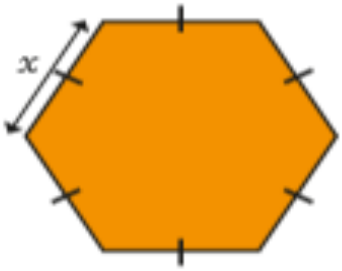
c)



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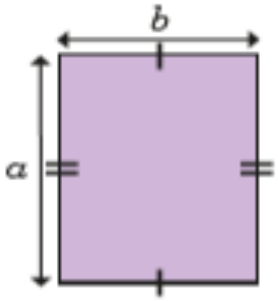
d)



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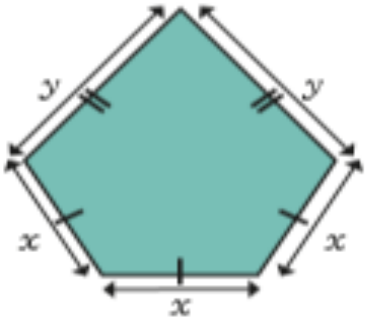
e)



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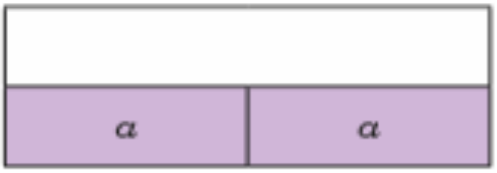
7 Complete the bar models.

a)



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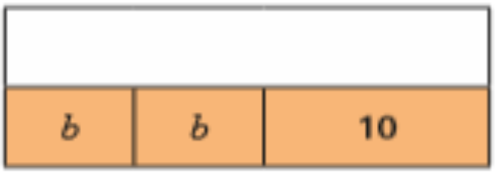

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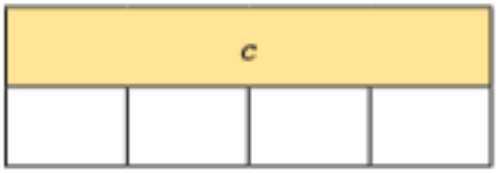

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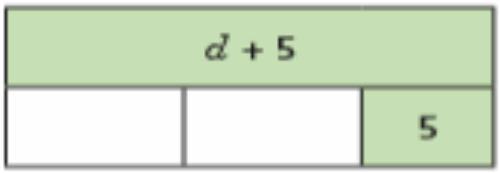


Thursday:

Maths Starter:

1) What is 3.6 × 10?

2) Multiply 13.95 by 10

3) Work out $1\frac{3}{5} + 2\frac{7}{10}$

4) Calculate the sum of 17.4 and 20.3

1

Use the given facts to work out the calculations.

a) 

b) 

c) 

2

Use the given facts to work out the calculations.

a) 

b) 

c) Create your own calculation that will be equal to 22

3 If $x = 5$, write the values of the expressions in the corresponding grid. The first one has been done for you.

$3x$	x^2	$2x - 5$
$4x + 2$	$\frac{x}{2}$	$2(x + 1)$
$7x$	$x + 9$	$x - 7$

15		

4 If $a = 10$ and $b = 6$, work out the values of the expressions.

a) $a + b =$ ☐

b) $a - b =$ ☐

c) $2a =$ ☐

d) $2a + b =$ ☐

e) $3a - 17 =$ ☐

f) $2(a - b) =$ ☐

5 If $m = \frac{4}{5}$ and $k = 0.1$, work out the value of $m + 2k$

☐

6

Mo

It does not matter what p and q are, $p + q$ and $q + p$ will always give the same answer.

Do you agree with Mo? _____

Explain your answer.

_____

_____

_____

7

$m = 7 \quad n = 5$

Write >, < or = to compare the expressions.

a) $2m$ ◯ 10

b) $n - 1$ ◯ 5

c) $2n + m$ ◯ $2m + n$

d) $7n$ ◯ $5m$

Thursday Maths Extension (optional)

8

$a = 10$

Write the expressions in order, starting with the smallest value.

$5a$	$a + 5$	$\frac{a}{5}$	a^2

9

$a = 15$

Write three different algebraic expressions that give a value of 40

_____ _____ _____

10 Complete the table.

x	$5x$	$5x - 1$
2		
10		
12		
	25	
		34
		99

Friday:

Maths Starter:

1) What is 36 ÷ 10?

2) What is the value of the digit 2 in the number 17.243?

3) Work out $1\frac{2}{5} + \frac{3}{4}$

4) Max has £1,500. He spends £279 on a new TV. How much does he have left?

1 Scott builds a pattern using triangles and circles.

a) Draw the next diagram in the pattern.

b) Scott records the number of triangles and circles in a table.
Complete the table.

Number of triangles	1	2	3	4	5
Number of circles	3				

c) c = number of circles and t = number of triangles
Circle the formula that describes the pattern.

$c = t + 3$ $c = 3t$ $t = 3c$ $t = 3 + c$

d) How many circles will there be with 10 triangles?
Show your working.

2 **a)** Complete the table.

Number of weeks	1	2	3	5	10
Number of days	7				

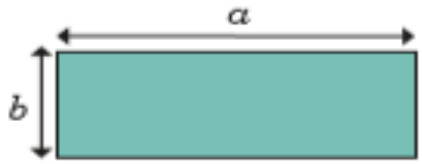
b) Complete the formula to show the relationship between days (d) and weeks (w).

$d =$ ☐ w

c) How many days are there in 32 weeks?

☐

3 **a)** Write a formula for the area and perimeter of the rectangle.



area = _____

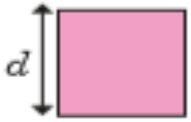
perimeter = _____

b) Work out the area and perimeter of the rectangle if $a = 17$ cm and $b = 8$ cm

Show your workings.

area = ☐ perimeter = ☐

4 **a)** Write a formula for the area and perimeter of the square.



area = _____

perimeter = _____

b) Work out the area and perimeter of the square if $d = 8.5$ cm

Show your workings.

area = ☐ perimeter = ☐

5 Dora makes a square pattern using lolly sticks.

She records the number of squares and sticks in a table.

a) Continue the pattern and complete the table.

Number of squares, s	1	2	3	4	5
Number of lolly sticks, l	4	7			

b)

Eva

You need 35 lolly sticks to make 10 squares. I multiplied the number needed for 2 squares by 5

Show that Eva is wrong.

How many sticks are needed to make 10 squares?

c) Circle the formula that describes the pattern.

$l = 3s + 1$

$l = 4s + 1$

$l = 3(s + 1)$

Friday Maths Extension (optional)

6 Here are a dog walker's prices.

a) How much does the dog walker charge for a 2-hour job?

b) Write a formula to show the cost (c) for (h) hours.

7 The Wooden Letter Company sells wooden letters for £2 each, plus £1.50 for delivery of each order.

a) Whitney places an order for the letters to spell out her name.

How much does it cost?

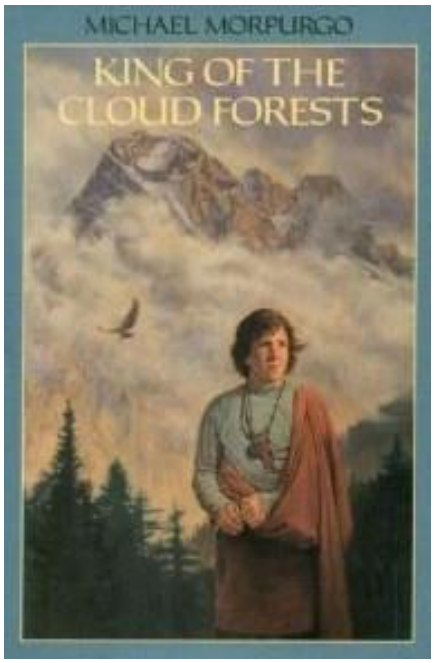
£

b) Write a formula to show the cost (c) for the number of letters (n).

Kingfisher Class Home- Learning- Summer 2- Week 5- English

Monday: This is the last week of King of the Cloud Forests

Read chapter seven alone or read aloud to a family member (record in reading record).



Imagine you are Leelee.

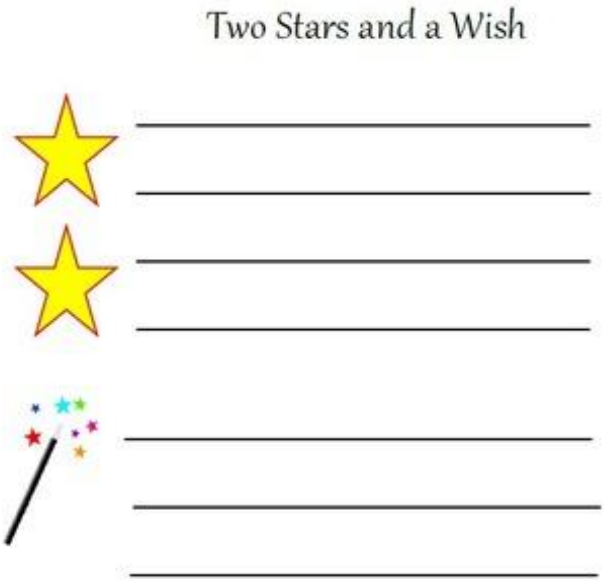
Although you do not know whether it will ever reach him, you have decided to send a letter back to your father in China.

You could include:

- What has happened so far?
- What has happened to Uncle Sung?
- Where are you?
- How do you feel?
- What do you hope will happen now?

Give yourself some time to plan, write and edit your letter in this lesson.

When you are happy with it, read your letter to a member of your family and ask them to give you 2 stars and a wish.



Tuesday:

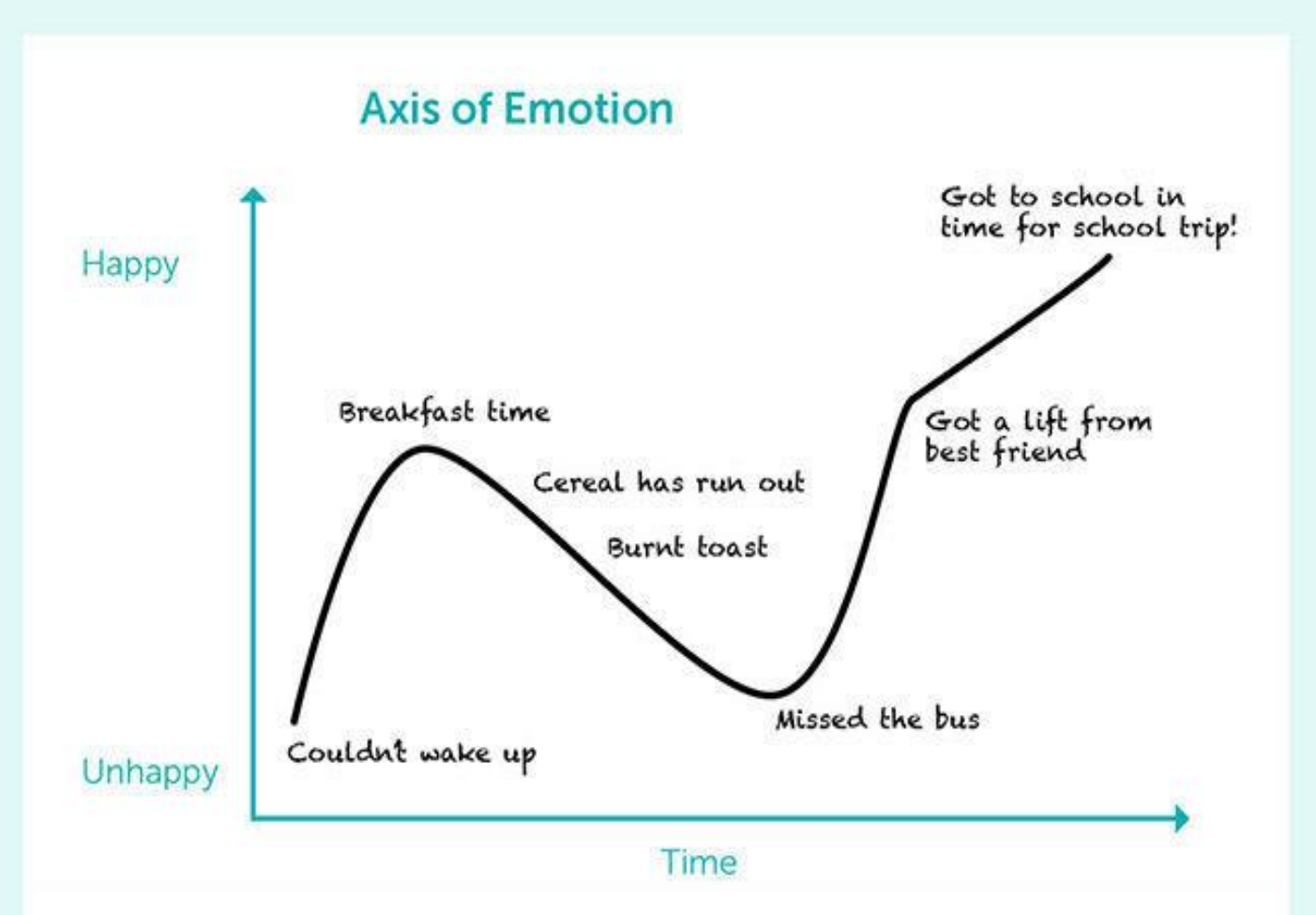
Read chapter eight alone or read aloud to a family member (record in reading record).

Re-read pages 91 – 97- Throughout this part of the story, Leelee and the yetis have differing feelings and levels of hope for Shoo's recovery.

On a piece of paper, I would like you to plot an emotions graph like we have done in school before I would like you to show me two lines, they are:

- **Leelee'**s levels of hope.
- The **yeti's** level of hope.

Example of an emotion graph:



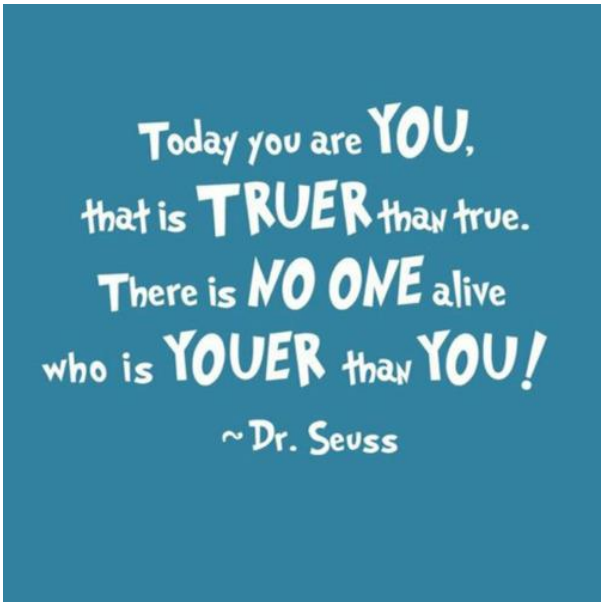
You can list the feelings all the way up one axis and key events along the other axis.

Tuesday Drama activity:

With your family, decide three most important parts of chapter 8.

I would like you to do a bit of Drama! I know Kingfisher class love Drama lessons, just like Miss Brown!

Can you create three freeze frames showing three of the most important parts of chapter 8. If you can and have permission- take a photo of each freeze frame for a memory of this book and Drama.



Miss Brown's quote of the week

And Finally…

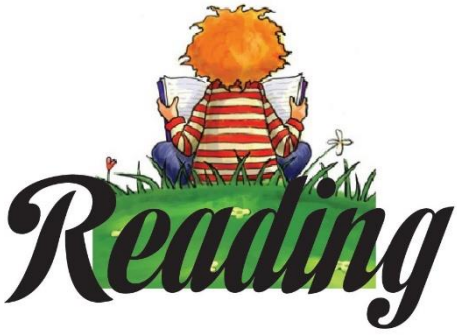
Read chapter 9 independently or with an adult.

Wednesday:

- Read chapter 10 and 11 alone or with an adult.
- Create a comic strip of the key events that have happened so far in the book. You can use the template below or create your own.

Write three predictions about what you think will happen in chapter 12.

1) A prediction you think will almost certainly happen.
2) A prediction that may or may not happen.
3) An unusual prediction that definitely will not happen!



Thursday:

Read final chapters of the books were their predictions correct from yesterday?

Do you think yetis exist?

Which of the below do you think is true of the yeti? - Maybe you could have a polite debate with your family?

a) A man

b) An animal

c) A myth

I would like you to write a debate explaining your point of view, and **why**.

Give yourself some time to plan, write, edit and improve in this lesson.

Use this website lesson to help you structure your own debate.

https://www.bbc.co.uk/bitesize/articles/z7pj7nb

Debating Checklist

- My opening statement introduces what I am debating and hooks my listener.
- I have 3 strong main points for my case.
- I have supported each point with a further explanation, giving additional points which are linked, in a persuasive way.
- My conclusion sums up the points that I have made, continuing to persuade.

Persuasive features:

- I have used rhetorical questions.
- I have used persuasive phrases.
- I have used facts and figures.

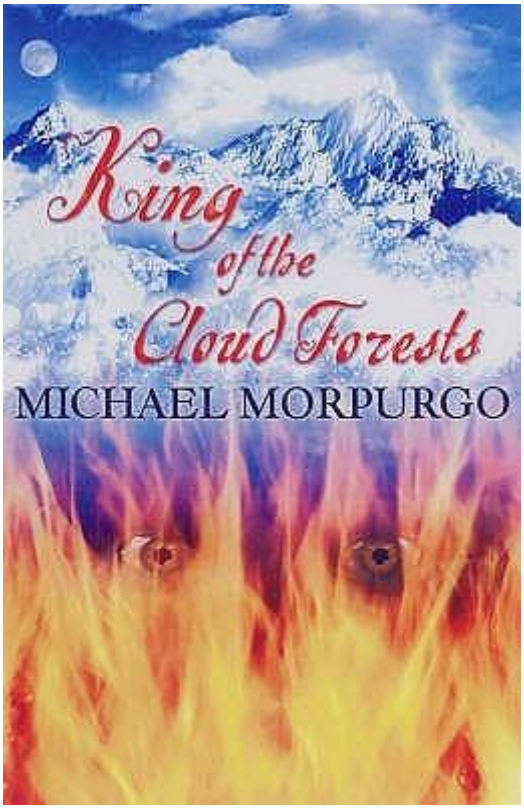
Friday:

Make sure you have read the whole book by this point.

Discuss the book 'King of the cloud forest- Michael Morpurgo' as a family.

Possible questions you could think about…

- What did you think of the book?
- What was your favourite part?
- What was your least favourite part?
- Would you recommend the book to anyone?
- Who is your favourite character and why?
- What rating would you give the book out of 10, 10 being the best?
- Were there many surprises in the book?



For your last activity based on King of the Cloud Forests I would like you to write a review. What was the story about? What aspects did you enjoy? What areas of the book would you have improved?

You can use the book review template on the next page, or you can create your own. I cannot wait to see your reviews; I really hope you enjoyed the book as much as I did.

Book Review

Book Title

_____

Author _____

Illustrator _____

Genre (tick as many as apply to your book)

o fiction	o scary	o animal story
o non-fiction	o fairy tale	o biography
o fantasy	o adventure	o historical
o humour	o sports	o mystery
o other _____		

Plot

Event 1 _____

_____

_____

Event 2 _____

_____

_____

Event 3 _____

_____

_____

Setting

_____

_____

Picture of the setting

Character

Name _____

Personality _____

_____

_____

Physical Appearance _____

_____

How I feel about this character and why: _____

_____

_____

_____

Cause and Effect of one of the events in the book

Cause	Effect

My Star Rating

Why I rated the book _____ stars

_____

_____

_____

This book made me feel

_____ because

_____

_____

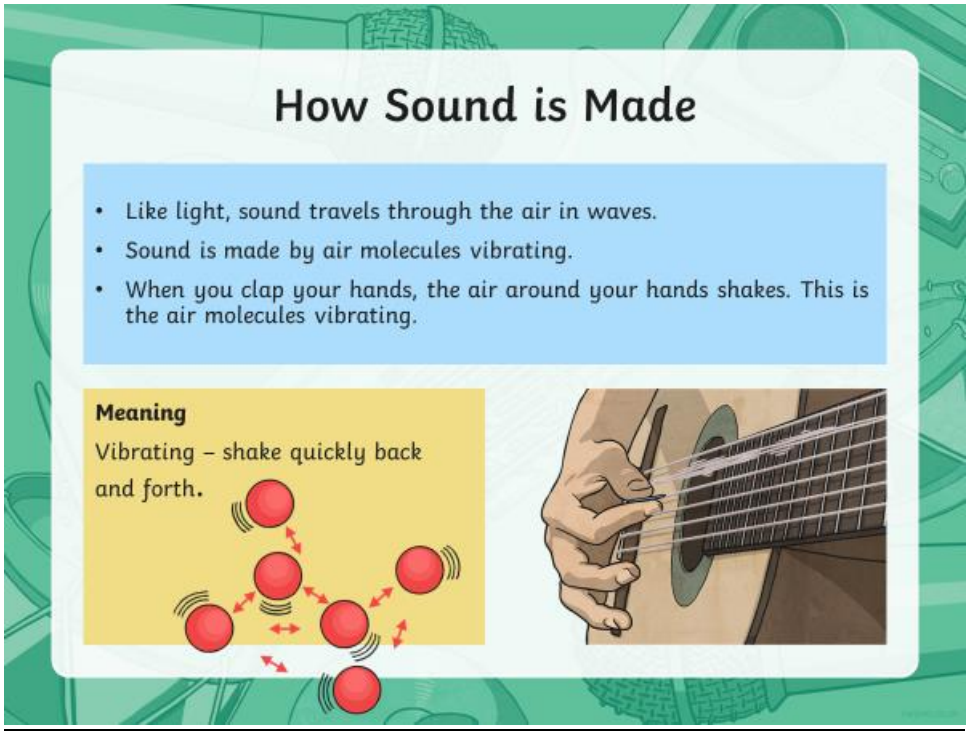
_____

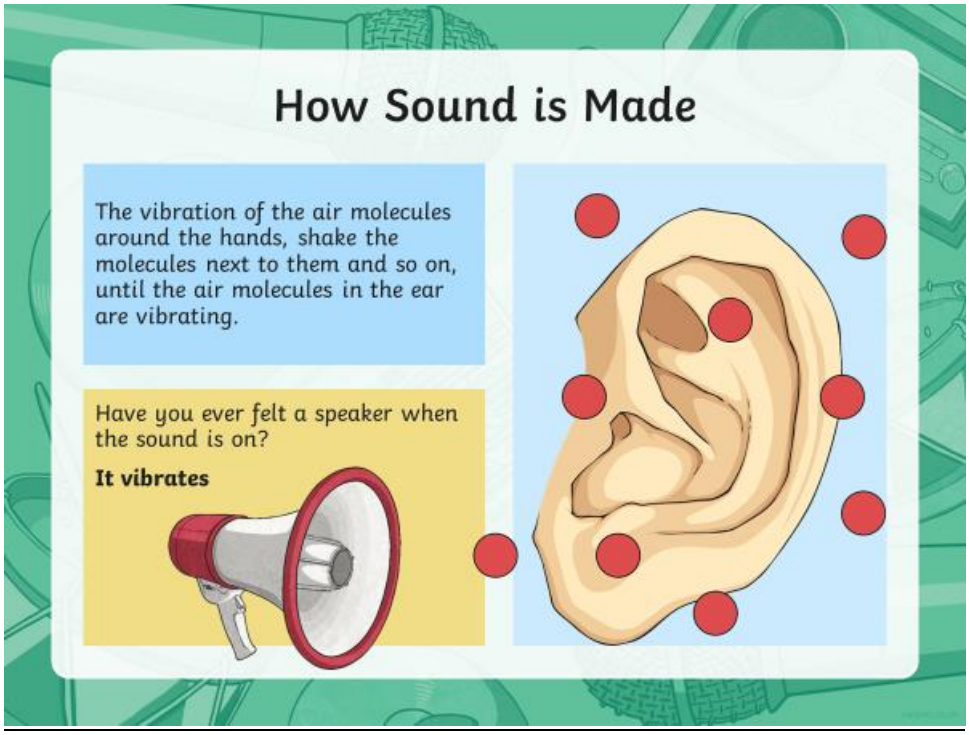
draw how you felt!

Kingfisher Class Home- Learning- Summer 2- Week 5- Foundation Subjects

Science –Introduction to Sound

Take the time to read through each picture to find out more about Sound answering some questions along the way.





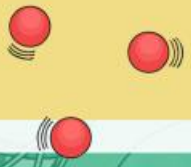
How Sound is Made

Molecules Vibrating

When air molecules inside the ear vibrate, they shake tiny hairs on the insides of the ears.

The hairs are connected to nerves under the skin.

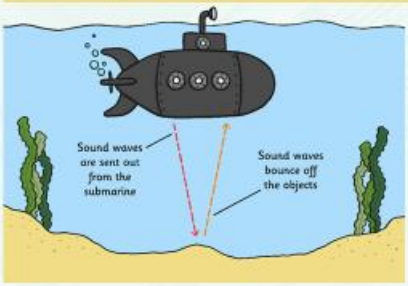
These nerves send messages to your brain to tell you that you heard a noise.



Communicating with the brain

How Sound is Made

- Sound needs molecules to move. It is impossible for sound to travel in space.
- Sound doesn't have to move through air. It can travel through water or metal.
- In fact, sound travels faster through water and solids than it does through air.



How Sound is Made

Sound travels much slower than light, whether in air or in water.

Light travels at 186,000 miles per second.
Sound travels at 770 miles per hour.

You often hear things after you see them, for example you see the lightning before you hear the thunder.

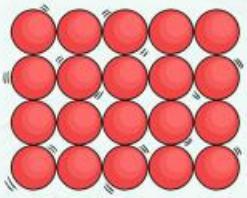
How Sound is Made

Why do you think sound travels faster through solids and liquids, than gases?

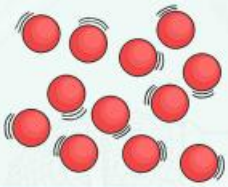
Hint

Hint

Think about how close the molecules are to each other.



Solid



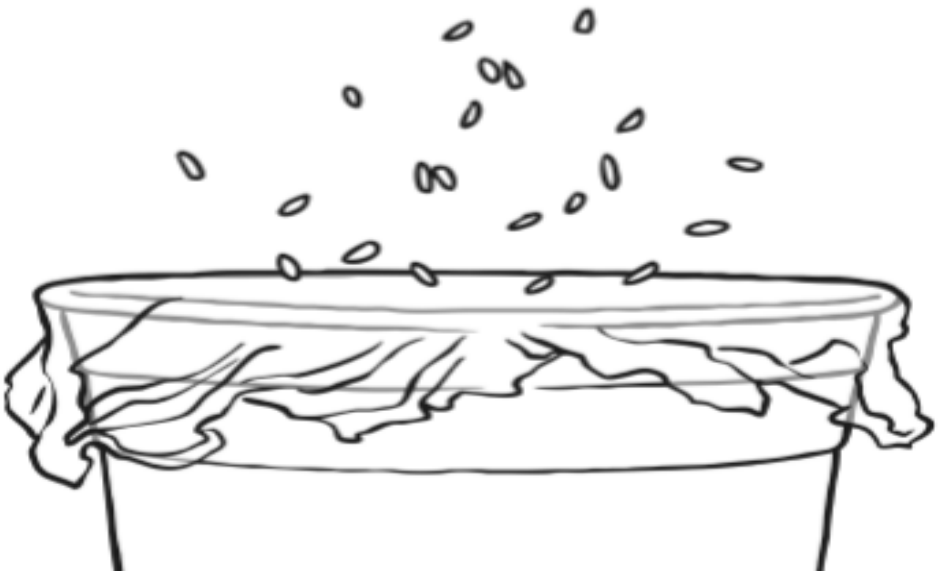
Liquid

Sound Experiment:

Seeing Sound

Carry out this experiment to see how sounds are produced by vibrations.

Learning Objective	To explain how sound is produced by vibrations.
Science Unit	Energy and Forces: Sound
Skills Development	Observing
Materials Needed	Glass/Cup Cling film Elastic band Dry rice Musical instrument 
Steps	1. Wrap the cling film over the top of the glass. 2. Secure the cling film with elastic bands - make sure it fits tightly. 3. Put some grains of rice on the cling film. 4. Play the instrument close to the glass.
Scientific Principles	You will see the grains of rice vibrating on the cling film. Sound is created by vibrations. These vibrations travel through the air as a sound wave.



Science Extension: Create a poster, Power Point or leaflet containing everything you have learnt so far about Sound from the information pictures and the rice experiment. It doesn't have to be finished this week as you could add to this poster over the next few weeks.

Topic- Geography

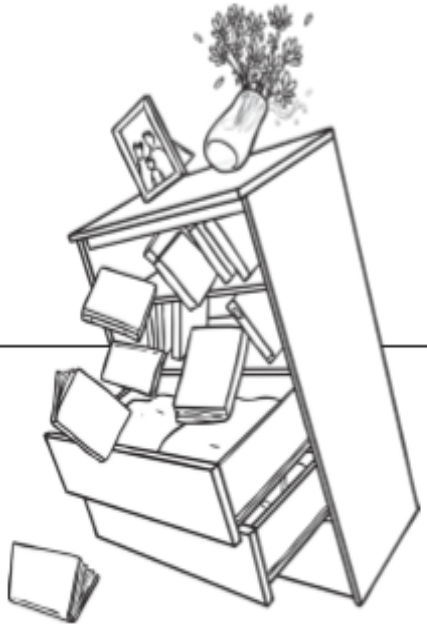
Challenge

What can you find out about earthquakes?

Using the table below, try to answer the questions and find out some information about earthquakes.

Questions	Facts and Information
What is an earthquake?	
What causes an earthquake?	
What damage can an earthquake do?	

Questions	Facts and Information
Which countries have the most earthquakes?	
Other interesting information	



You could also try to find out:

- how earthquakes are measured;
- how easy they are to predict;
- about other cases where prison sentences have been handed out in unusual circumstances;
- what the biggest earthquake ever recorded is.

DT, ART and Topic

Design an Earthquake-Proof Building

Study the buildings below. How might their shape and structure help them in an earthquake?

The Transamerica Pyramid - San Francisco

The Yokohama Landmark Tower - Japan

A Japanese Pagoda

Beijing National Stadium

How to Strengthen a Building

Use this box to make notes to help you create your earthquake-proof building.

- Shape
- Base
- Walls
- Other

Use this list of features to help you make your notes:

- Deep foundations to add stability to the building.
- X-shape supports prevent the building from twisting and make it stronger.
- Emergency shut off switches for gas and electricity to prevent fires.
- Thin walls with steel bars help to reduce the movement of the building.
- Sprinkler system to put out any fires.
- Shock absorbers in the base can absorb the shock waves produced by the earthquake.
- Shutters on windows to stop any falling glass.

Design an Earthquake-Proof Building

Draw your own earthquake-proof building below.

Remember to label the features you have included and explain why you have added them.

RE

For today's lesson, I would like you to plan and draw what your idea of the most special place to you would be.

This is your own creation; it does not have to be a place that has already been made.

This could be your ideal place of worship or a special place to you, your family, and friends.

This place could be inside, outside, calm, decorative- this is completely up to you.

You could create your designs by hand or on the computer.

Please label the special features of your place and why you have chosen these features to appear in your special place. You could use features from other places of worship that you have really liked. This could be from a church, a cathedral, the synagogue and many more.

Next week, you will be using these designs 😊

PE

How to play:

- Once you complete a physical activity tick it off.
- Can you complete the activities in the blue squares in less than 60 seconds?
- If you are finding some of the activities hard, change them or have a rest and then continue.
- When performing the activities make sure that you are **honest**.

Achieve Gold
Complete all the activities on the card

Achieve Silver
Complete a horizontal or vertical line of activities

Achieve Bronze
Complete one activity from each line

Computing

Please log on to Purple Mash to see the 2do's set for the week (Please do at least one 2do- Make sure you press the 'hand in' button so that I am able to give you feedback). Also, remember to log onto My Maths weekly and practise times tables on Times tables Rockstars.

PSHE


A Weeks Worth
HIGHLIGHTS OF THE WEEK JUST GONE
DAY
DAY
DAY
DAY
DAY
DAY
DAY.

Feelings

WHAT are your feelings today. Chat about them with those in Four bubble

Music


Listen!
TO YOUR FAVE SONG.... Really Listen..
WHAT ARE THE WORDS ABOUT??
ARTIST
SONG NAME -
WHAT DO THE WORDS MEAN??

Just to let you know that I have planned a lot of activities but please don't feel pressured to do them all.

Do what is right for you and your family. I would rather you have too much then too little but it doesn't mean you have to complete everything or you can save it for when you feel like doing something to keep you occupied. Please get outside in the fresh air if you can, in a safe way and be helpful to your family. Remember you can use the National Oak Academy lessons if you wish to, using this website: https://www.thenational.academy/online-classroom/schedule From Miss Brown ☺