

MAYOR OF LONDON

# Teaching Primary Science through Maths and English

Welcome to this Mayor of London webinar.

We will be starting at 4.30pm.

Feel free to introduce yourselves in the Q&A →

# The Mayor's London Scientist Teacher Programme

Fun, creative STEM projects in school

- CREST Awards
- STEM Learning CPD
- £150 grant
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# Teaching Primary Science through Maths and English

Naomi Hiscock

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Sign up for my regular newsletter [here](#).

# Government statement

For pupils in Key Stages 1 and 2 in the coming year,

*“school leaders are expected to prioritise identifying gaps and re-establish good progress in the essentials (phonics and reading, increasing vocabulary, writing and mathematics)”.*

To achieve this, time for teaching the Science curriculum may get squeezed. However, the Government’s guidance also requires that

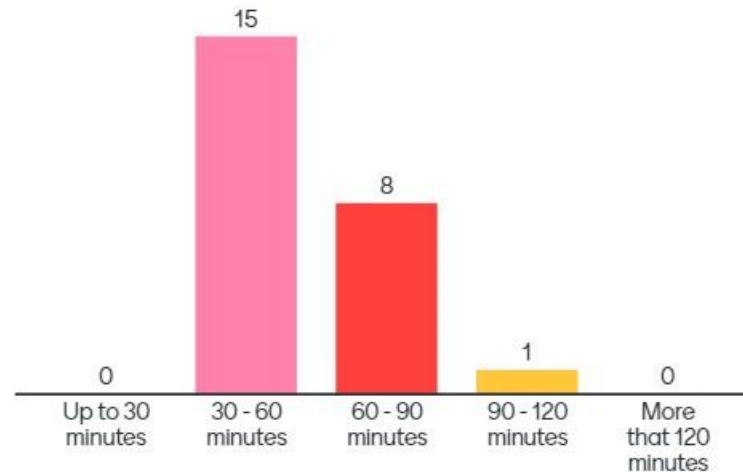
*“the majority of pupils are taught a full range of subjects over the year, including sciences”.*

# A quick survey

Go to [www.menti.com](http://www.menti.com) and use the code 39 00 79 2

How much time do you think you will be able to spend on science each week?

Mentimeter

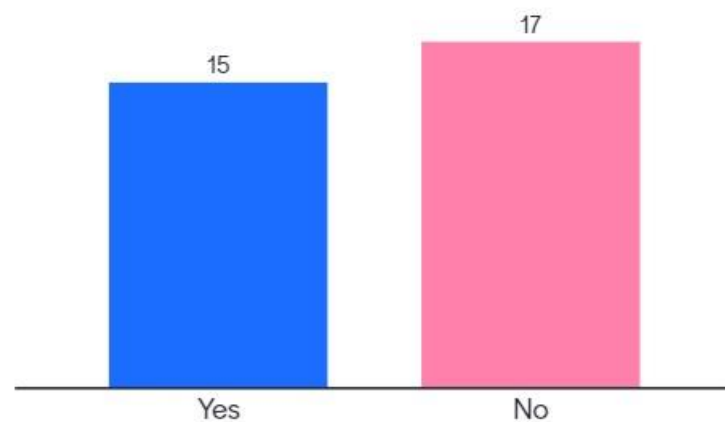


# A quick survey

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Is this less time than would normally be given to science?

Mentimeter



# Aims

We will explore:

- how science can be used as a context for teaching reading, writing, spoken language and mathematics
- the topics from the Science curriculum that are well-suited to being taught in this way
- resources that support the teaching of science through English and Maths.

# Incorporating Science into English

- Speaking and listening
- Reading
- Writing



# Spoken language – Years 1 to 6

Pupils should be taught to:

- listen and respond appropriately to adults and their peers
- ask relevant questions to extend their understanding and knowledge
- use relevant strategies to build their vocabulary
- articulate and justify answers, arguments and opinions
- give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- speak audibly and fluently with an increasing command of Standard English
- participate in discussions, presentations, performances, role play, improvisations and debates
- gain, maintain and monitor the interest of the listener(s)
- consider and evaluate different viewpoints, attending to and building on the contributions of others
- select and use appropriate registers for effective communication.

# Explorify

Help your class think like scientists!  
Use these short anytime activities to develop critical thinking skills.

Search for activities Science topic (all) Year group (all) Activity type (all) Advanced (all)

- Activity type (all)
- Image gallery
- Odd One Out
- Zoom In, Zoom Out
- Video
- What's Going On?
- Discussion
- What If...
- The Big Question
- Hands on
- Mystery Bag
- Mission Survive
- Problem Solvers

**Hidden depths**  
Take a closer look at this everyday object by zooming in and out to see it differently.  
Ages 7 – 9  
Sound

**Can microorganisms be good for you?**  
Plan a fun investigation and get your class thinking about microorganisms.  
Ages 9 – 11  
Living things and their habitats

**How clean are your hands?**  
Plan a fun investigation and get your class thinking about personal hygiene.  
Ages 5 – 7  
Animals, including humans

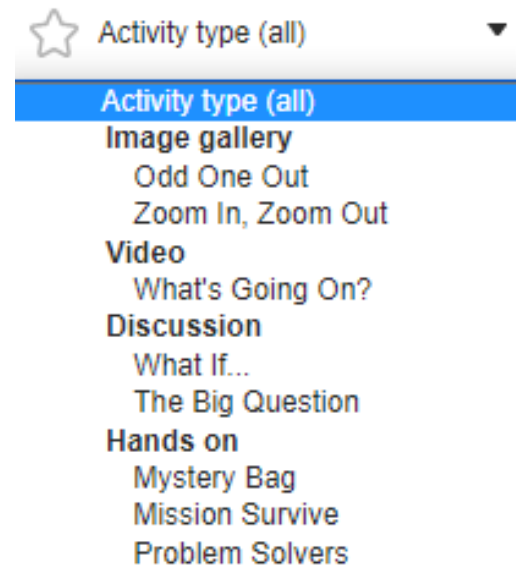
**Small but powerful**  
Put your class' observation skills to the test with these three microorganisms.  
Ages 9 – 11  
Living things and their habitats

- Activity type (all)
- Activity type (all)
- Image gallery
- Odd One Out
- Zoom In, Zoom Out
- Video
- What's Going On?
- Discussion
- What If...
- The Big Question
- Hands on
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# On the chat

Which particular science activities have you found engage pupils in purposeful talk that develops thinking?  
Why do you think this is?

- listen and respond appropriately to adults and their peers
- ask relevant questions to extend their understanding and knowledge
- use relevant strategies to build their vocabulary
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- consider and evaluate different viewpoints, attending to and building on the contributions of others



# Chat responses

- Odd one out on digestion with Y4 provoked some lovely conversation and discussion about organs and their purpose
- Here's a great example of Explorify being used:  
<https://twitter.com/coopwoodlands/status/1305865400199020544>
- Zoom in zoom out
- In Y6 group tasks where children have to agree which classification animals belong in and give their reasoning.
- Darwin's Finches figuring out which finches come from which Island, what they eat, why their beak is shaped the way it is ...

# Spoken language – Years 1 to 6

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# Consolidating Science knowledge

- Teach the key vocabulary and knowledge in Science lessons.
- Consolidate scientific vocabulary and practice explaining concepts using this vocabulary precisely during oral work in English time.

# Presenting Science learning – improvisation

## Scribed role-play dialogue - Year 3 Rocks

Eliza: I need something to replace my roof because it is really old.

Max: I'd advise slate because ... and it's also good if you want to buy some extras like a dartboard because, if you get chalk on it [Max picked up the lump of chalk and started to draw on the slate], it makes lines. Also, for your roof, it's really good because if you want to slice it, it has lots of layers, and it's very strong and hard wearing. It's impermeable, so it won't let the water through.

Eliza: That sounds very nice. Do you advise anything else?

Max: I'd advise marble (if you have anybody dead in your family!) Do you?

Eliza: Yes.

Max: Well, marble is very hard wearing. It will last for a very long time and it is also quite pretty and beautiful. It's good because you can make it into a special shape. [Max is thinking of a gravestone as this was discussed in class.] It's perfect for sculptures and if you want to put anything on top.

Eliza: Yes, I think I'll take all of them.



# Presenting Science learning – role-play

I am very light. I can float. My body is covered in holes. I am from a volcano. I am not very strong. I am quite rough to touch. When I stay in water too long, I will slowly start sinking.

Who am I?

# Example – Year 6 Light



# Presenting Science learning – debate and persuasion

- What topics lend themselves to the children preparing for a debate or persuasive presentation?

# Chat responses

- Evolution vs Creation
- Alfred Russell Wallace and Charles Darwin whilst developing their theories of evolution
- Classifying animals, particularly ones that don't neatly follow the rules e.g. echidna or tegu
- Being healthy
- Which material is best for x
- Is fast food good for you? was a topic of debate and discussion before writing a balanced argument in Year 3 - leading on from talking about healthy eating in Science
- Space Y5 and persuading that the earth is spherical or the planets orbit the sun
- Moon landing/space
- Persuasive - looking after teeth (digestion Y4)
- Living things and their habitats - discussing human impact on environment
- Light - the best source of light for seeing into a dark box - we have been doing this at school today and it brought good conversation and opinion from the children

# Reading - comprehension

## Year 1

Develop pleasure in reading, motivation to read, vocabulary and understanding by:

- listening to and discussing a wide range of poems, stories and **non-fiction** at a level beyond that at which they can read independently
- being encouraged to link what they read or hear read to their own experiences

Understand both the books they can already read accurately and fluently and those they listen to by:

- drawing on what they already know or on background information and vocabulary provided by the teacher

## Year 2

Develop pleasure in reading, motivation to read, vocabulary and understanding by:

- listening to, discussing and expressing views about a wide range of contemporary and classic poetry, stories and **non-fiction** at a level beyond that at which they can read independently
- being introduced to **non-fiction books** that are structured in different ways

Understand both the books that they can already read accurately and fluently and those that they listen to by:

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# Reading - comprehension

## Year 3 and 4

Develop positive attitudes to reading and understanding of what they read by:

- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- reading books that are structured in different ways and reading for a range of purposes
- using dictionaries to check the meaning of words that they have read

## Year 5 and 6

Maintain positive attitudes to reading and understanding of what they read by:

- continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
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Retrieve and record information from non-fiction

## Year 5 and 6

Maintain positive attitudes to reading and understanding of what they read by:

- continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- reading books that are structured in different ways and reading for a range of purposes

Distinguish between statements of fact and opinion

Retrieve, record and present information from non-fiction



# Adding breadth to Science

- Give children an experience during Science time.
- Enrich this through reading in English time.

# On the chat

- Are science books included in your reading scheme?
- Do children have access to text books linked to your topics?
  - Home reading books
  - Library books
- How else do you encourage science reading?

# Chat responses

- Read and watched a video about Mary Anning and did a reading comp session using that in English and Science lessons while learning about Rocks (Year 3). They LOVED the story, and we did an assembly on her life too.
- We receive loan books from the local library and they provide us with books dependent on our topic and science is included in this.
- "Women in Science" is a great read - concise information about female scientists.
- We use whizz pop bang magazine and they have reading comprehensions in their school resources.
- Share books as a class instead of a video or PowerPoint e.g Moth by Isobel Thomas when teaching Natural Selection then we make our own moths to hide in the classroom before explaining what we understand about natural selection ...
- I'm in Year 3 and have a great story book/non-fiction book about rocks and fossils which is great called Let's rock
- We've had better results with linking fiction to science, for example using the Gruffalo's Child for asking questions on shadows and traditional tales in Y2
- We use accelerated reading and encourage the children to read a mixture of fiction and non-fiction. Our school library also has a science section and staff & pupils are being encouraged to use it. I also have a school library card so borrow books linked to our different topics from the local library.
- Tons of ebooks on Curriculum Visions - I think free or free trial

# Types of writing

- On the chat, share the range of writing that you teach or use in everyday life.
- Can these be used for Science writing?

# Chat responses

- Instructions, narrative, poetry
- Newspaper reports
- Diary entry as a scientist on a day they discovered something
- Labelling
- Playscript, information, explanation

# Year 1 - poem

what am I?  
I am orange.  
I am bumpy.  
people glow me.  
people use me for Halloween.  
I am a pumpkin.

# Year 6 – job description

The Heart Job Description

LOCATION: The upper part of the body. ✓

DEPARTMENT: Circulation. ✓

RELATIONSHIP: Veins, arteries and lungs. ✓

JOB PURPOSE: It pumps blood around the body.

PRIMARY DUTIES:

- Making sure it is on time.
- Knowing that arteries' blood flows away. ✓
- Knowing that blood from the veins' blood travels toward.

OTHER DUTIES:

- Knowing that the lungs is working as well together with the heart. ✓
- Making Oxygen pump around.

# Year 4 - story

I was sitting in a nice comfy bowl with my family and some sort of monstrous thing picked me up and popped me in to a hole below his nose which I soon discovered was called a mouth. These white things called teeth crushed me down whilst a red moving thing called a tongue held me in place. I was then made into mush and broken down by a liquid called saliva. I then fell down a long tube called an oesophagus and into a large container called the stomach. The acid in there broke me up into smaller pieces.

Then I went into a bumpy tube called the small intestine. Don't tell anyone I was sick. After that I had a little stop but then went on through an even bumpier tube called the big intestine. Then the ride was over. I went into a small compartment with lots of other waste called the rectum. Then I was pushed out the anus into a white container.



# Key learning from PLAN knowledge matrix

WHAT PUPILS NEED TO KNOW OR DO TO BE SECURE	
Show understanding of a concept using scientific vocabulary correctly	
Key learning	Possible evidence
<p>Food enters the body through the mouth. Digestion starts when the teeth start to break the food down. Saliva is added and the tongue rolls the food into a ball. The food is swallowed and passes down the oesophagus to the stomach. Here the food is broken down further by being churned around and other chemicals are added.</p> <p>The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body. The rest of the food then passes into the large intestine. Here the water is removed for use elsewhere in the body. What is left is then stored in the rectum until it leaves the body through the anus when you go to the toilet.</p> <p>Humans have four types of teeth: incisors for cutting; canines for tearing; and molars and premolars for grinding (chewing).</p>	<ul style="list-style-type: none"> <li>• Can sequence the main parts of the digestive system</li> <li>• Can draw the main parts of the digestive system onto a human outline</li> <li>• Can describe what happens in each part of the digestive system</li> <li>• Can point to the three different types of teeth in their mouth and talk about their shape and what they are used for</li> <li>• Can name producers, <u>predators</u> and prey within a habitat</li> </ul>

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MUST	SHOULD	COULD
- mouth ✓	- teeth ✓	- acid ✓
- oesophagus ✓	- saliva ✓	- liver
- stomach ✓	- tongue ✓	- bile
- small intestine ✓	- break down ✓	- proteins
- large intestine ✓		- sugars
- rectum ✓		- faeces
- anus ✓	- absorb	- nutrients
	- water	

# High quality Science writing

Children need to be secure on:

- the characteristics of the type of writing
- the key Science knowledge and vocabulary.

# Resources

## Teaching science through stories

Children's stories provide a great context for learning science. Explore our resource packages based around popular children's books and discover the science hidden in a book. Resources include book summaries, hints and tips for teaching the science and further stories on a similar theme.

They are organised into three age groups:



### 5 -7 years

#### HANDA'S SURPRISE



Handa's Surprise would make a great starting point about the needs of living things linked to diet and the specific needs of humans.

NEEDS OF LIVING THINGS, DIETS AND ANIMALS

#### JACK AND THE BEANSTALK



The story of Jack and the Beanstalk makes a great starting point for teaching the topic of plants to younger primary aged children.

PLANTS

#### LITTLE RED RIDING HOOD



As Little Red Riding Hood is set in a wood, it makes a lovely starting point for finding out about habitats.

HABITATS AND FOOD CHAINS

<https://www.stem.org.uk/teaching-science-through-stories>

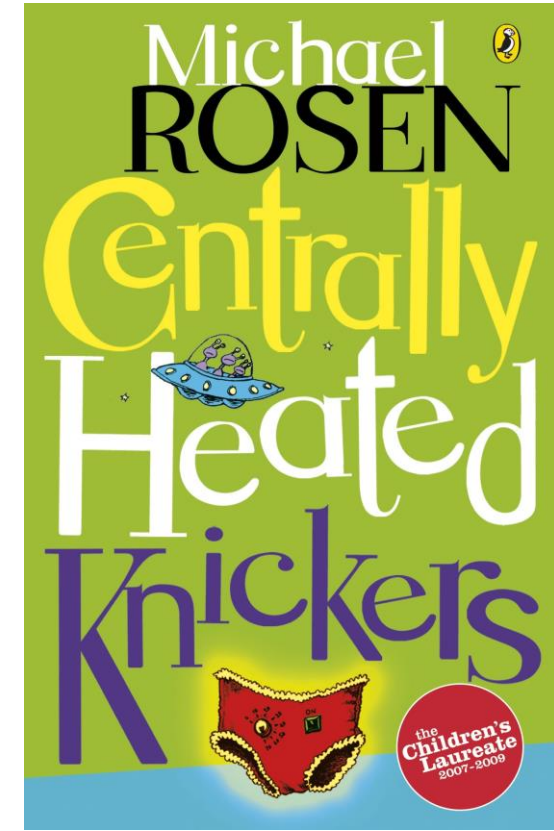
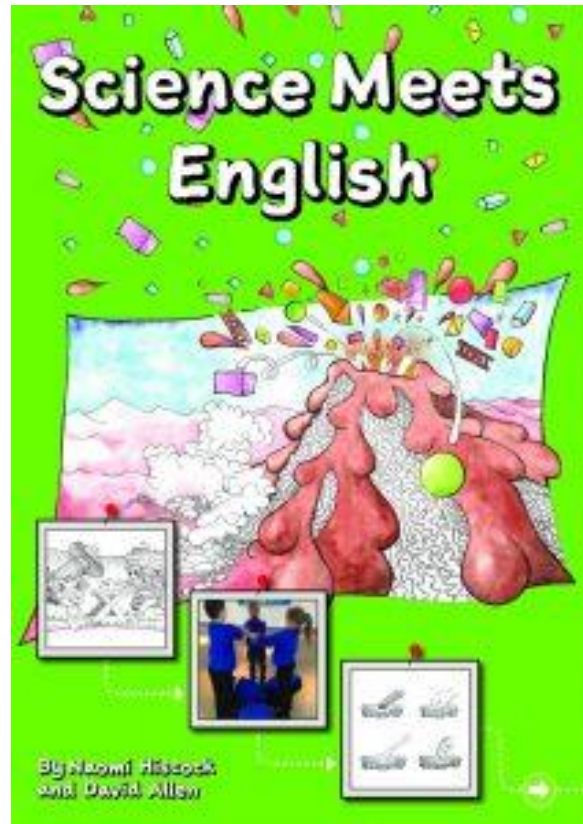
## Science & Story Links - Light

Story	Suitable for	Possible Questions to Investigate
The Dark—Lemony Snickett	KS2	Does The Dark really behave like it does in the story?
The Gruffalo's Child—Julia Donaldson	EYFS, KS1, KS2	How could the mouse make his shadow even bigger/smaller? How could the mouse change the shape of his shadow?
Can't You Sleep Little Bear? - Martin Waddell	EYFS, KS1	What could little bear use to make it brighter in the cave?
The Owl Who Was Afraid of the Dark	KS1, KS2	Can owls see in the dark? If not, how do they hunt? What is 'dark'? Can you explain why Plop needn't be afraid?
Goodnight Mr Tom—Michelle Morgan	KS2	Which material will be best to blackout our windows?
Blackout—John Rocco	EYFS, KS1	What light can we find at night? What if we didn't have electric lights at school?
The Game in the Dark—Herve Tullet	EYFS, KS1, KS2	How are shadows formed? How can we change the shape/size of shadows? Which materials would be best for a book like this that casts shadows?
<b>Other Related Stories:</b>		
Keesha's Bright Idea—Eleanor May		
The Firework Maker's Daughter—Philip Pullman		
The Darkest Dark—Chris Hadfield		
Orion and the Dark—Emma Yarlett		

That Science Lady—Kathryn Horan  
k-horan@outlook.com

[www.thatsciencelady.com](http://www.thatsciencelady.com)

# Resources



# Incorporating Science into Maths

- Measures
- Statistics

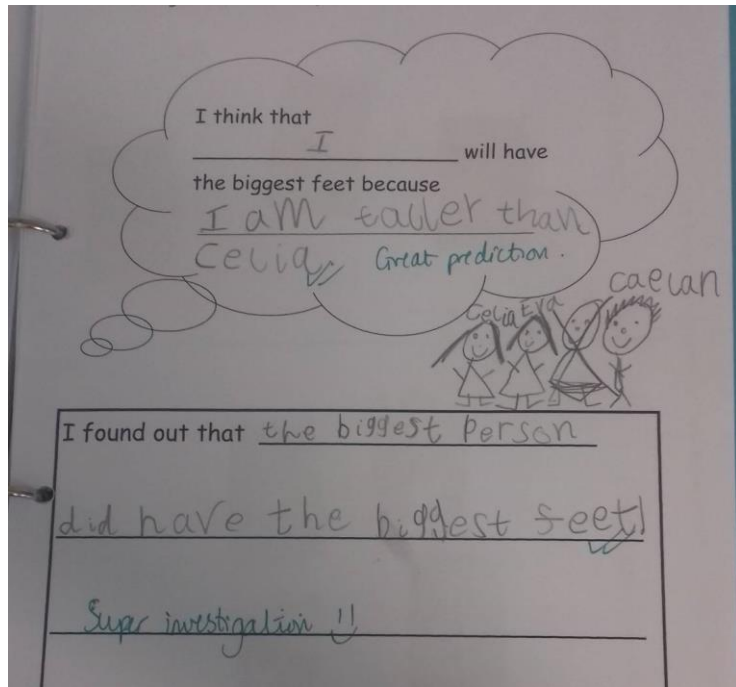
# Measures

<p><b>Maths</b> Years 1 to 3</p>	<p>Pupils should be taught to measure and compare:</p> <ul style="list-style-type: none"> <li>• lengths and heights</li> <li>• mass/weight</li> <li>• capacity and volume</li> <li>• time (hours, minutes, seconds)</li> </ul>
<p><b>Science</b> Years 1 and 2</p>	<p style="text-align: center;"><b>Observing closely, using simple equipment</b></p> <ul style="list-style-type: none"> <li>• Children explore the world around them. They make careful observations to support identification, comparison and noticing change. They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</li> <li>• They begin to take measurements, initially by comparisons, then using non-standard units.</li> </ul>
<p><b>Science</b> Years 3 and 4</p>	<p style="text-align: center;"><b>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</b></p> <ul style="list-style-type: none"> <li>• The children make systematic and careful observations.</li> <li>• They use a range of equipment for measuring length, time, temperature and capacity. They use standard units for their measurements.</li> </ul>

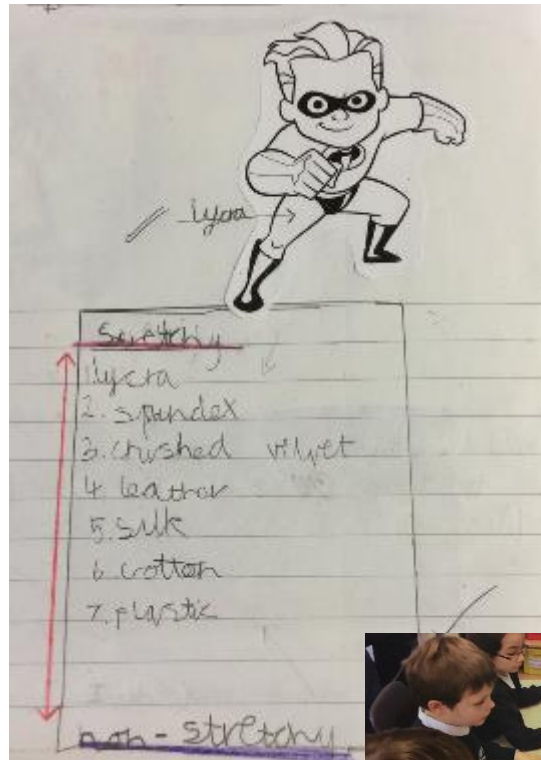


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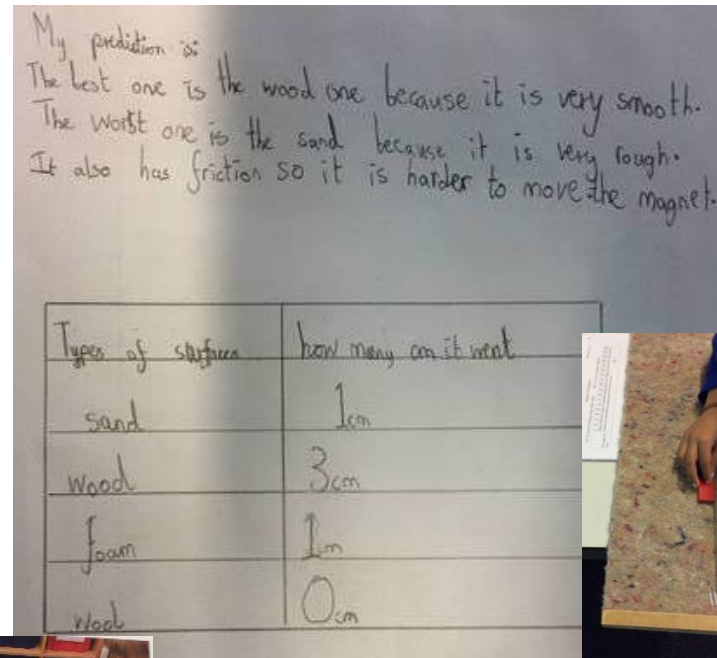
## Year 1 – Animals, including humans



## Year 2 – Uses of everyday materials



## Year 3 – Forces and magnets



# On the chat

- What Science activities can be used for measuring and comparing:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time (hours, minutes, seconds)?

Year	Topics				
Year 1	Plants	Animals, including humans	Everyday materials	Seasonal change	
Year 2	Living things and their habitats	Plants	Animals, including humans	Uses of everyday materials	
Year 3	Plants	Animals, including humans	Rocks	Light	Forces and magnets

# Chat responses

- Measuring plant growth, recording rainfall, volume of water when testing water resistance of different materials
- Plants - measuring heights of growing plants
- Seasonal Change - time/measure - rain gauges etc., Materials - measure, Forces - time
- Materials
- Measuring how long a substance takes to melt
- Measuring the height of the plant feeding them with different liquids
- Timing how long it takes water to permeate through different soil types

# Measures

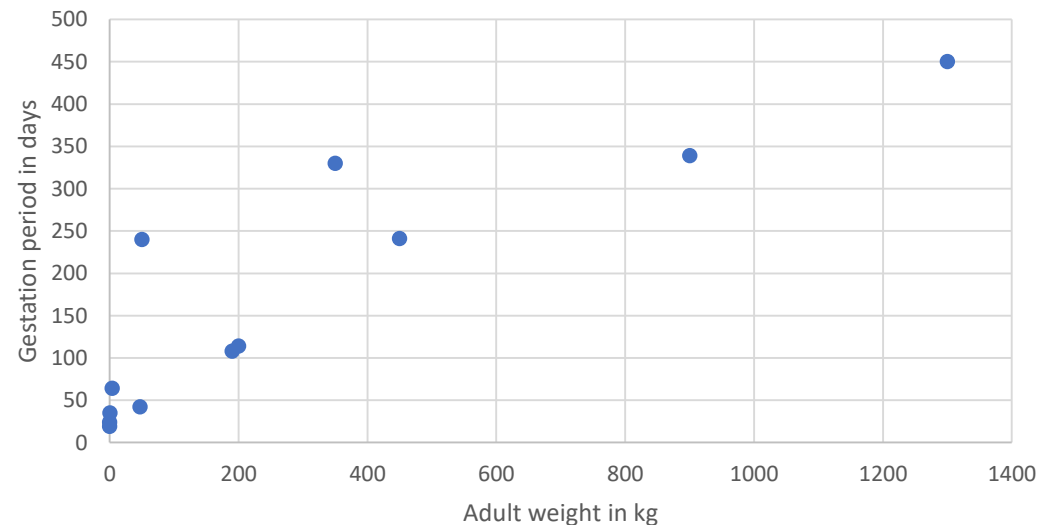
<p><b>Maths</b> Years 4 to 6</p>	<p>Pupils should be taught to convert between different units of measurement</p> <ul style="list-style-type: none"> <li>• lengths and heights</li> <li>• mass/weight</li> <li>• capacity and volume</li> <li>• time (hours, minutes, seconds)</li> </ul>
<p><b>Science</b> Years 3 and 4</p>	<p><b>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</b></p> <ul style="list-style-type: none"> <li>• The children make systematic and careful observations.</li> <li>• They use a range of equipment for measuring length, time, temperature and capacity. They use standard units for their measurements.</li> </ul>
<p><b>Science</b> Years 5 and 6</p>	<p><b>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</b></p> <ul style="list-style-type: none"> <li>• The children select measuring equipment to give the most precise results e.g. ruler, tape measure or trundle wheel, force meter with a suitable scale.</li> <li>• During an enquiry, they make decisions e.g. whether they need to: take repeat readings (fair testing); increase the sample size (pattern seeking); adjust the observation period and frequency (observing over time); or check further secondary sources (researching); in order to get accurate data (closer to the true value).</li> </ul>

# Measures

- Can you see a pattern in the data?
- Which two animals are anomalies?

	A	B	C	D
1	Animal	Weight/kg	Gestation period/days	
2	Polar bear	450	241	
3	Cat	4	64	
4	Chimpanzee	50	240	
5	Gerbil	0.04	24	
6	Kangaroo	47	42	
7	Lion	190	108	
8	Shire horse	900	339	
9	Rhinoceros	1300	450	
10	Sea lion	350	330	
11	Squirrel	0.5	35	
12	Mouse	0.02	19	
13	Pig	200	114	
14				
15				
16				

Graph comparing the gestation period and adult weight of mammals

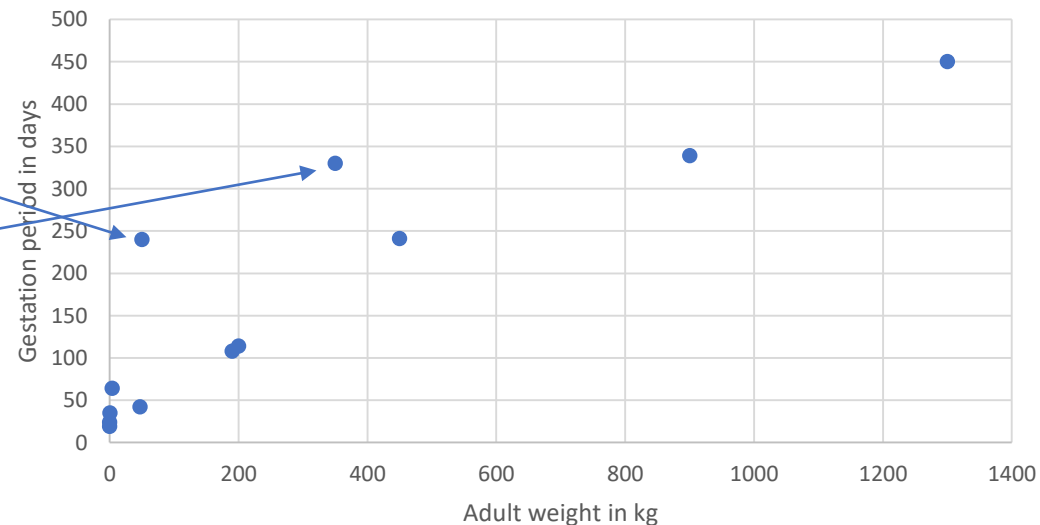


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10	Sea lion	350	330	
11	Squirrel	0.5	35	
12	Mouse	0.02	19	
13	Pig	200	114	
14				
15				
16				

Graph comparing the gestation period and adult weight of mammals



# On the chat

- What Science activities can be used to provide opportunities for converting between units in:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time (hours, minutes, seconds)?

Year	Topics				
Year 4	Living things and their habitats	Animals, including humans	States of matter	Sound	Electricity
Year 5	Living things and their habitats	Animals, including humans	Properties and changes of materials	Earth and space	Forces
Year 6	Living things and their habitats	Animals, including humans	Evolution and inheritance	Light	Electricity

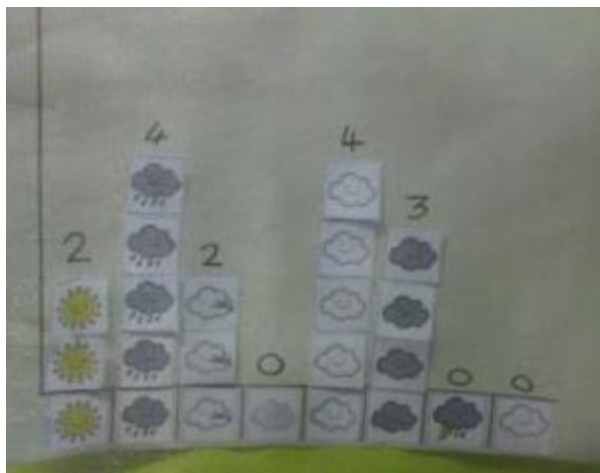
# Statistics

<b>Maths</b> Years 2	Pupils should be taught to: <ul style="list-style-type: none"><li>• interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li><li>• ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li><li>• ask and answer questions about totalling and comparing categorical data.</li></ul>
<b>Science</b> Years 1 and 2	<p style="text-align: center;"><b>Gathering and recording data to help in answering questions</b></p> <ul style="list-style-type: none"><li>• The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.</li><li>• They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs.</li><li>• They classify using simple prepared tables and sorting rings.</li></ul>

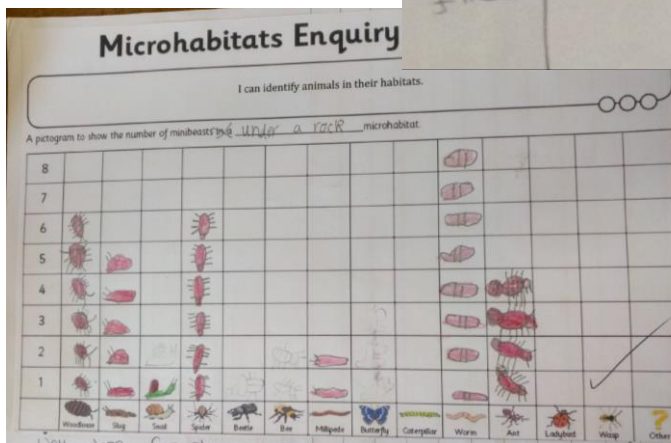
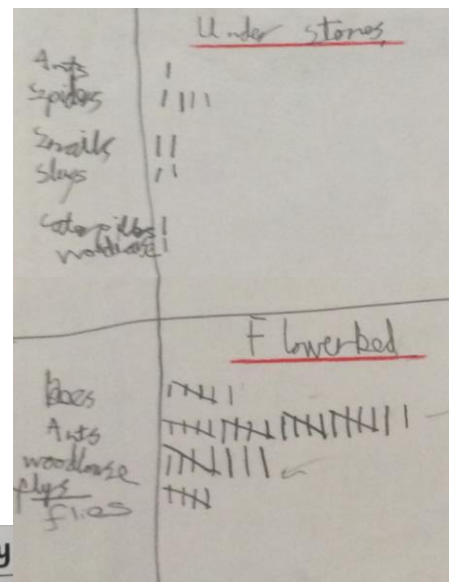


# Statistics

Year 1 – Seasonal changes



Year 2 – Living things and their habitats



# Statistics

<p><b>Maths</b> Year 3</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• interpret and present data using bar charts, pictograms and tables</li> <li>• solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.</li> </ul>
<p><b>Maths</b> Year 4</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</li> </ul>
<p><b>Science</b> Years 3 and 4</p>	<div style="background-color: #4b612c; color: white; padding: 5px; text-align: center;"> <p><b>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</b></p> <p><b>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</b></p> </div> <ul style="list-style-type: none"> <li>• The children sometimes decide how to record and present evidence. They record their observation e.g. using photographs, videos, pictures, labelled diagrams or writing. They record their measurements e.g. using tables, tally charts and bar charts (given templates, if required, to which they can add headings). They record classifications e.g. using tables, Venn diagrams, Carroll diagrams.</li> <li>• Children are supported to present the same data in different ways in order to help with answering the question.</li> </ul>

# How far does the car move on different surfaces?

Surface	Distance travelled in cm
Rug	27cm
Wooden floor	257cm
Door mat	29cm
Kitchen tiles	234cm

- How much further does the car move on the door mat than the rug?
- What is the difference between the distance travelled on the wooden floor and the kitchen tiles?
- How far do you predict the car will move on the marble floor?

# Statistics

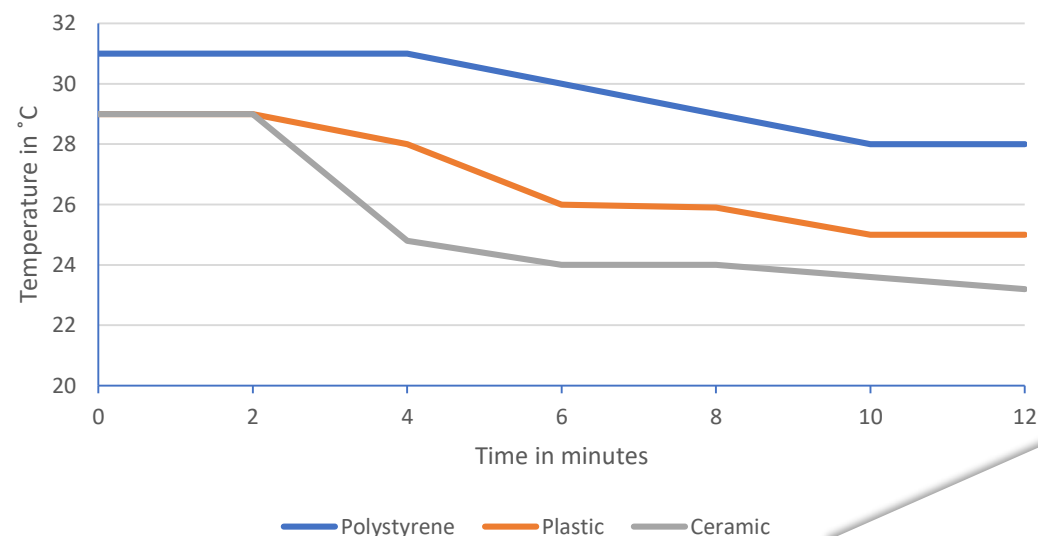
<p><b>Maths</b> Year 5</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• solve comparison, sum and difference problems using information presented in a line graph</li> <li>• complete, read and interpret information in tables, including timetables.</li> </ul>
<p><b>Maths</b> Year 6</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• interpret and construct pie charts and line graphs and use these to solve problems</li> <li>• calculate and interpret the mean as an average.</li> <li>• (Pupils both encounter and draw graphs relating two variables, arising from their own enquiry and in other subjects – Notes and guidance)</li> </ul>
<p><b>Science</b> Years 5 and 6</p>	<div data-bbox="410 782 2265 865" style="background-color: #4b6121; color: white; padding: 5px; text-align: center;"> <p><b>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</b></p> </div> <ul style="list-style-type: none"> <li>• The children decide how to record and present evidence. They record observations e.g. using annotated photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing. They record measurements e.g. using tables, tally charts, bar charts, line graphs and scatter graphs. They record classifications e.g. using tables, Venn diagrams, Carroll diagrams and classification keys.</li> <li>• Children present the same data in different ways in order to help with answering the question.</li> </ul>

# Statistics

- What is the drop in temperature of the water in the plastic cup?
- Which material is the best insulator?

material of Cup	0 minutes	2 minutes	4 minutes	6 minutes	8 minutes	10 min	12 min
Polystyrene	31°	31°	31°	30°	29°	28°	28°
plastic	29°	29°	28°	26°	25.9°	25°	25°
ceramic cup	29°	29°	24.8°	24°	23.4	23.6°	23.8

How does the temperature of water change over time when in cups made of different materials?

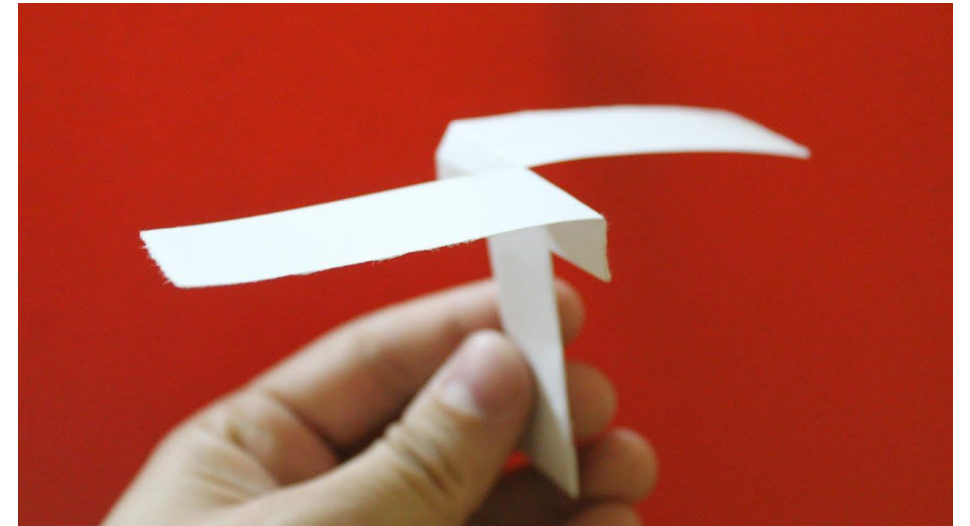


# Statistics

Drop 1	Drop 2	Drop 3	Total	Average
1.79	1.60	1.38	4.72	1.57

We started to make changes to our spinner: *Janie = dropper*

Change	Drop 1	Drop 2	Drop 3	Total	Average
2cm	1.65	1.85	1.31	4.71	1.57
4cm	1.70	1.44	1.60	4.74	1.58
6cm	1.22	1.53	1.71	4.96	1.49



# On the chat

What Science activities can be used to provide opportunities for interpreting and presenting data in:

- pictograms
- tally charts
- tables
- bar charts
- time graphs
- line graphs
- pie charts?

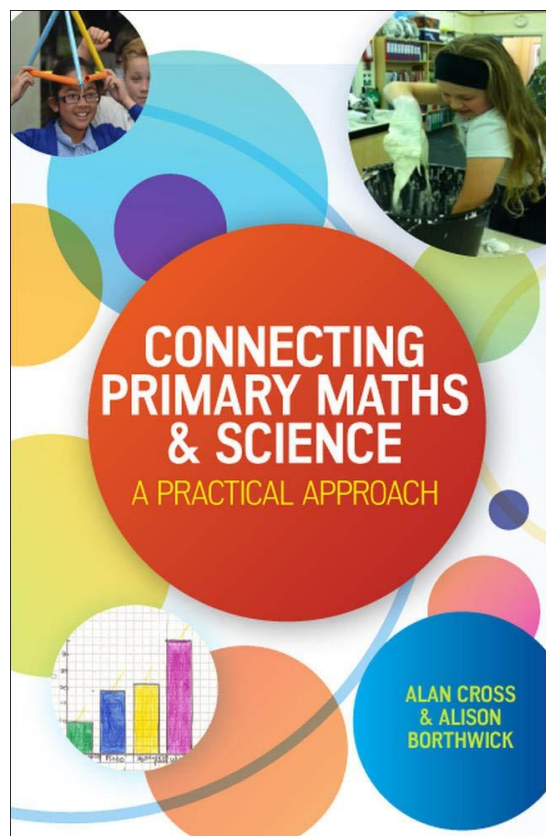
Year	Topics				
Year 1	Plants	Animals, including humans	Everyday materials	Seasonal change	
Year 2	Living things and their habitats	Plants	Animals, including humans	Uses of everyday materials	
Year 3	Plants	Animals, including humans	Rocks	Light	Forces and magnets
Year 4	Living things and their habitats	Animals, including humans	States of matter	Sound	Electricity
Year 5	Living things and their habitats	Animals, including humans	Properties and changes of materials	Earth and space	Forces
Year 6	Living things and their habitats	Animals, including humans	Evolution and inheritance	Light	Electricity

# Adding context to Maths

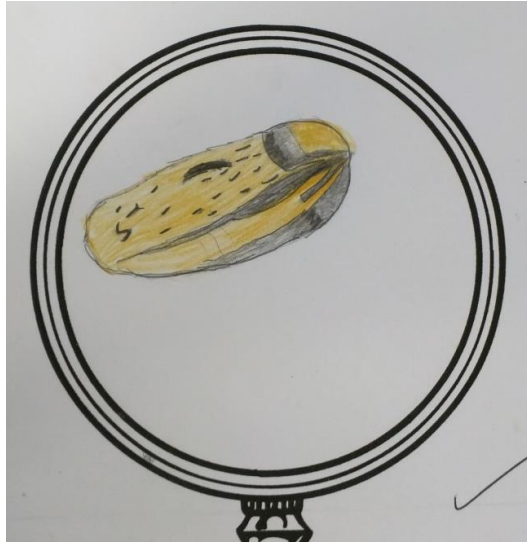
- Gather data in Science time and present and interpret in Maths time.
- Complete the Science enquiry in Maths time!



# Resources



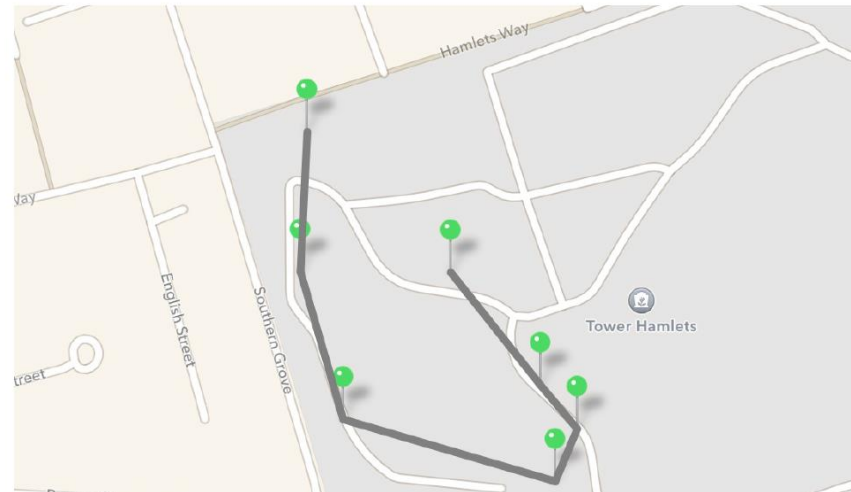
# Links to other subjects



Art – Year 2 Plants

Distance: 0.26 mi

Points: 7



Geography – Using maps to log location of plants



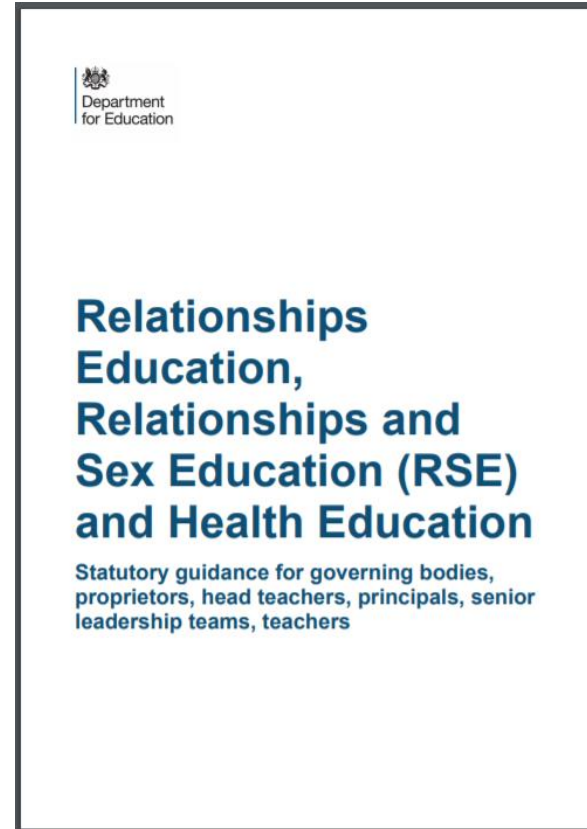
DT – electricity, materials, cooking

# Links to other subjects



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PE – importance of exercise, pulse rates



RSE – physical health and fitness, healthy eating, drugs, alcohol and tobacco, health and prevention, changing adolescent body

# On the chat - other ideas

- Have you got any other sneaky ideas of how to squeeze more Science into the week?

# Chat responses

- Story time! Reading about famous scientists - Greta etc.
- Pre-covid, we did a news assembly and had a science story each time
- Topic - Romans we look at the materials they would use for making a shield and why

MAYOR OF LONDON

# Teaching Primary Science through Maths and English

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