St. Martin's Primary School - Science

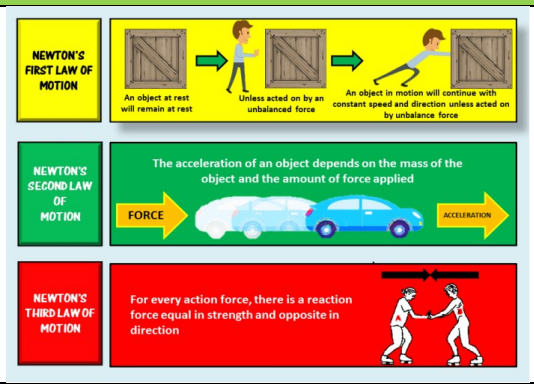
Topic: Great British Scientists	Year: 5	Strand: Working Scientifically

What should I already know?

- The three main branches of science
- Be able to talk about the scientific method
- How to make observations of patterns, similarities and differences and use these to make a conclusion

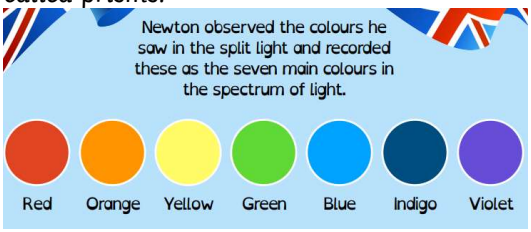
What will I know by the end of the unit?

What are Newton's 3 Laws of Motion?

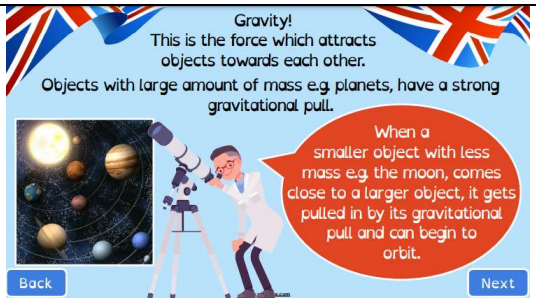


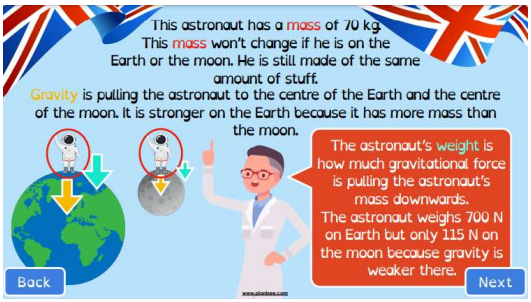
If light is white, where do we get colours from?

Newton discovered that light could be split by directing it into shaped polished glass called prisms.

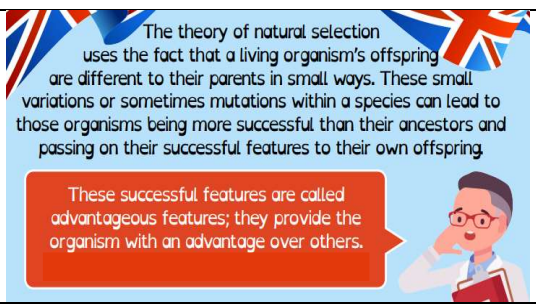


What is gravity and how does it affect mass and weight?





What is natural selection?



Vocabulary

advantageous	something that his helpful or useful
black hole	an area in space with gravity so strong that nothing can escape it
dependent variable	the thing that is being measured in a scientific experiment
disadvantageous	something that is unhelpful or can cause harm
evolution	the process of changing and adapting to an environment over time
force	a source of power or energy
gears	part of a machine that causes another part to move
gravity	the force by which all objects in the universe are attracted to each other
independent variable	a variable that is not changed by other variables being measured
mass	a measurement of how much matter is in an object
mechanism	parts of a machine
natural selection	a natural process of evolution where the strongest of a species survive
Newtons	the unit in which force is measured
solar system	the Solar Sustem is made up of the Sun and all of the smaller objects that move around it
trait	a characteristic or quality that makes a person or animal different from others
variables	an element or feature that can be changed
weight	how heavy something is
white light	pure light, such as sunlight

Great British Scientists

Sir Isaac Newton – Physicist and Mathematician
Stephen Hawking – Physicist and Cosmologist
Mary Anning – Palaeontologist
Alfred Russel Wallace – Naturalist and Biologist
Charles Darwin – Naturalist and Biologist
Alexander Fleming – Microbiologist
John Kemp Starley – Inventor
Rosalind Franklin – Chemist
Tim Berners-Lee – Computer Scientist
Ada Lovelace – Computing and Mathematician
Dorothy Hodgkin – Chemist
Maggie Aderin-Pocock – Space Scientist
Anne McLaren – Geneticist
David Attenborough – Biologist and Natural Historian
Alan Turing – Computer Science and Mathematician
Brian Cox – Physicist

Investigate!

Find out about some of the Great British Scientists named above.

- What did they do?
- What did they discover?
- How have their discoveries or their work impacted our lives today?

St. Martin's Primary School - Science		
Topic: Great British Scientists	Year: 5	Strand: Working Scientifically

Question 1: What were Newton's 3 laws of motion?	
Start of unit:	End of unit:
1.	1.
2.	2.
3.	3.

Question 2: What 7 colours make up white light?			
Start of unit:		End of unit:	
1.	5.	1.	5.
2.	6.	2.	6.
3.	7.	3.	7.
4.		4.	

Question 3: Can you explain the effects of gravity on mass and weight?	
Start of unit:	End of unit:

Question 4: What is natural selection?	
Start of unit:	End of unit:

Question 5: Can you give an example of a disadvantageous trait?	
Start of unit:	End of unit: