

Question - How does the science of the past influence the science of today?

What I should already know : Children will know about Mary Anning, George Stephenson (Yr3s), Katherine Johnson (Yr3s)

Enquiry Questions:

- Can we investigate the effect gravity has on everyday objects?
- Can we explain what happens to light when it passes through transparent objects?
- Can we investigate the wind?
- Can we find out if sound can pass through materials?
- Can we understand our senses and reflexes?
- Can we observe how germs are transferred by touch?
- Can we explore how to make light bulbs light up in electrical circuits?

Key Vocabulary

- ★ **Acoustics** - how sound is transmitted.
- ★ **Anemometer**- an instrument that uses cups to measure wind speed.
- ★ **Astronomer** - someone who studies space.
- ★ **Bacteriologist**- somebody who studies bacteria.
- ★ **Carbon filament**- a type of electric light source that uses carbon as the material for the glowing wire.
- ★ **Circuit** - a complete and closed path which allows electricity to flow.
- ★ **Climate**- the long term weather pattern.
- ★ **Contrast** - to find differences between things.
- ★ **Compare** - finding similarities between objects.
- ★ **Disease** - something that harms the body and doesn't allow it to function as it normally would.
- ★ **Earth**- the planet on which we live.
- ★ **Experiment** - a scientific test.
- ★ **Forces** - something that can change an object's movement.
- ★ **Germs** - a tiny life form that spreads disease.
- ★ **Gravity** - a force that makes things fall to the ground, It is a pull force.
- ★ **Group** - to put things together.
- ★ **Infections** - when tiny germs enter the body and cause harm to it.
- ★ **Impact**- the effect or influence something has.
- ★ **Lens**- a piece of glass with curved sides.
- ★ **Observe** - to watch something carefully.
- ★ **Phonograph** - a device used to record and play back sound. Later versions were called gramophones
- ★ **Prediction**- to make an educated guess.

Scientific Skills

Pupils will:

(Working Scientifically)

Year 2 & Year 3

WS1) Ask simple questions and understand they can be answered in different ways/ **ask relevant questions and use different types of scientific enquiries to answer them.**

WS2) **Use straightforward scientific evidence to answer questions or to support findings**

WS3) Observe closely, using simple equipment / **make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.**

WS4) Perform simple tests / **set up simple practical enquiries, comparative & fair tests.**

WS5) Identify & classify / **identify differences, similarities or changes related to simple scientific ideas and processes.**

WS6) Use observations & ideas to suggest answers or questions / **use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.**

WS7) Gather & record data to help answer

- ★ **Prism** - a 3D shape with its two end faces the same.
- ★ **Record**- to write down what is happening.
- ★ **Reflexes**- an action that happens without thinking about it.
- ★ **Sterile**- germ-free.
- ★ **Telescope** - an object designed to make far away objects appear nearer.
- ★ **Theory** - to come up with a scientific idea.
- ★ **Transmit** - how something is passed from one thing to another.
- ★ **Transparent** - allows light to pass through.
- ★ **Wind Vane**- an instrument that measures the wind by pushing an arrow around to the direction the wind is blowing.
- ★ **White light** - a light that seems colourless but actually is made up of red, orange, yellow, green, blue, indigo and violet.

questions / record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
 WS8) Gather, record, classify and present data in a variety of ways to help answer questions.
 WS9) Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
 Pupils should read and spell scientific vocabulary correctly.

Isaac Newton

Born: 4th January 1643
Died: 31st March 1727
Famous For: His theory on gravity; realising the Earth has a force which pulls objects down. He also discovered white light is a mixture of colours.



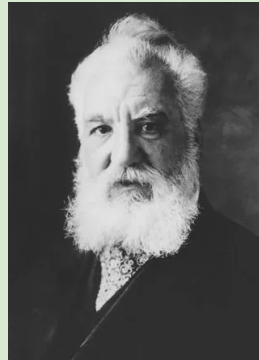
Maggie Aderin-Pocock

Born: 9th March 1968
Died: Still alive!
Famous For: Working on systems to protect aircraft from missiles, landmines, working on satellites and creating space telescopes.



Alexander Graham Bell

Born: 3rd March 1847
Died: 2nd August 1922
Famous For: The creation of the telephone as a communication device.



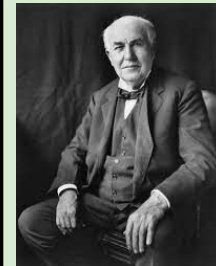
Florence Nightingale

Born: 12th May 1820
Died: 13th August 1910
Famous For: Improving healthcare and reducing deaths during the Crimean War.



Thomas Edison

Born: 11th February 1847
Died: 18th October 1931
Famous For: The lightbulb, phonograph (record player) and the motion-picture projector.



Links to Other Areas of the Curriculum: Whole class reading, Writing, History and Geography.