Our Science Learning Journey

Science Enquiry:
In every year group, across the year, children will answer questions using scientific enquiry skills:

- Researching
- Identifying & Classifying
- Observing
- Pattern Seeking
- Comparative & Fair Testing

YEAR 7

I can select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables.

Chemistry

I can present reasoned explanations, including explaining data in relation to predictions and hypotheses.

Atoms, elements & compounds

Periodic table

I can apply sampling techniques.

I can present observations and data using appropriate methods, including tables and graphs.

Structure & function of living organisms

Energy

Forces & Motion

I use my test results to make predictions to set up further enquiries.

Physics

Biology

Evolution

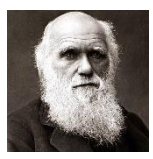
Waves

Electromagnetism

Material cycles & energy

Genetics & evolution

What is evolution and how does it happen?



Charles Darwin



Mary Anning

I can pay attention to objectivity and concern for accuracy, precision, repeatability and reproducibility.

How do our choices affect how our bodies work?

I identify scientific evidence to support or refute my conclusion.

Light

Living things & habitats

Keeping fit & healthy

How does light travel and how can it be varied?

I present data and results in suitable formats.

In what ways can we sort living things?

I record data and results of increasing complexity.



Alessandro Volta



Carl Linnaeus



Chris Packham

How can the brightness of a bulb be changed?

Electricity

Do all plants and animals reproduce in the same way?



Steve Irwin

YEAR 6

Living things & their habitats

Animals including humans

Animals including humans

I take repeat readings when appropriate."

Why and how does the human body change?

How does blood travel around my body?

I draw conclusions from my data and observations.



Drs Chris & Alexander van Tulleken

I can decide if my observations or measurements are suitable.



Leonardo Da Vinci

I can plan different types of scientific enquiries to answer questions.

Helen Sharman



I identify possible risks.

Materials (mixtures & separation)

Forces

Changing Materials

Earth & Space

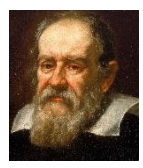
How can we separate a mixture?

I present results in a range of formats.

How and why do objects move?

Isaac Newton





Galileo Galilei

I use a range of equipment independently.

How can we change materials reversibly and irreversibly?

I recognize which type of enquiry is best to answer a question.

Sun, Earth & Moon: What is moving and how do we know?

YEAR 5



Jane Goodall

Living things and their habitats

Food Chains

Solids, Liquids & Gases

Teeth & Digestion

What is happening to animals in our world?

I gather, record and classify data in a variety of ways.

What would happen if a predator disappeared?

I use my results to draw simple conclusions and make predictions for new values.

How does matter change?

I suggest improvements to the way I carried out the investigation.

What is poo?



Joseph Lister

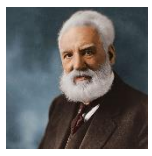
YEAR 4

Sound

Electricity

I make systematic, careful observations & take accurate measurements using standard units.

What can I hear?



Alexander Graham Bell

I can set up simple practical enquiries, comparative or fair tests.

How does a light bulb work?

I ask relevant questions and use different types of scientific enquiries to answer them.



Joseph Swan

Red text indicates Working Scientifically Skills