

Science



Curriculum Overview

The LOC science curriculum aims to develop in each student:

- A good basic knowledge and understanding of fundamental scientific principles and concepts.
- An awareness of how scientific research contributes to technological development in wider society.
- An ability to solve problems in practical contexts.
- Improve the ability to work collaboratively with other students.
- The ability to analyse information.
- A creative and enquiring mind committed to life-long learning.

Through practical tasks, class based learning and educational visits students will study the following:

Curriculum content KS3

Physics:

- Energy Electricity
- Forces & Motion
- Gravity & Space
- Light, Sound & Hearing
- Heating & Cooling
- Electromagnetism

Chemistry:

- States of Matter
- Chemical Reactions
- Atoms & Elements
- Rocks & Weathering

Biology:

- Human Body
- Plants & Photosynthesis
- Microbes & Disease
- Variation & Classification
- Ecological Relationships

Curriculum Content KS4

Entry Level Certificate:

- The Human Body
- Environment, Evolution & Inheritance
- Elements, Mixtures & Compounds
- Chemistry in our World
- Energy, Forces & The Structure of Matter
- Electricity, Magnetism & Waves

GCSE

Biology:

- Cell Biology
- Organisation
- Infection & Response
- Bioenergetics
- Homeostasis & Response
- Inheritance, Variation & Evolution
- Ecology

Chemistry:

- Atomic Structure & The Periodic Table
- Bonding, Structure & The Properties of Matter
- Quantitative Chemistry
- Chemical Changes
- The Rate & Extent of Chemical Change
- Organic Chemistry
- Chemical Analysis
- Chemistry of the Atmosphere
- Using Resources

Physics:

- Energy
- Electricity
- Particle Model of Matter
- Atomic Structure
- Forces
- Waves
- Magnetism & Electromagnetism