Southern International School Science Curriculum: Journey on a page 2024/2025

Year 7: KS3

- *Autumn 1 – Biological sciences: cells, Chemical sciences: Acids, Physical science Forces.*
- *Autumn 2 – Biological sciences: Body systems, Physical sciences: The solar system, Chemical science: Particles.*
- *Spring 1 – Chemical science: Particles, Physical sciences: sound waves.*
- *Spring 2 - Physical sciences: light, Chemical sciences: chemical reactions.*
- *Summer 1 – Physical sciences: non-contact forces, Biological sciences: Reproduction.*

Year 8: KS3

- *Autumn 1 – Chemical science: The periodic table, Biological science: nutrition and digestion.*
- *Autumn 2 – Physical science: current and potential difference, Biological science: The respiratory system.*
- *Spring 1 –Physical science: motion and forces, Chemical science: separation techniques.*
- *Spring 2 – Biological sciences: photosynthesis, Physical sciences: energy stores*
- *Summer 1 – Chemical science: metals and their reactions, Biological science: interdependence*

Year 9: KS3

- *Autumn 1 –The Earth's Structure and Inheritance and The Causes of Extinction*
- *Autumn 2 –Physical Pressure followed by Cells*
- *Spring 1 – The Universe followed by The Carbon Cycle, then Energy and Energy Values*
- *Spring 2 – Cell Systems followed by The Earth's Resources, then Electromagnets*
- *Summer 1 – Chemical Reactions followed by Atomic Structure.*
- *THE REMAINING TIME WILL BE GIVEN OVER TO REVISION*

Year 10: KS4

- *Autumn 1 – **1. Physics Topics:** Motion, Forces and Energy, followed by Thermal Physics*
- *Autumn 2 – Waves, Electricity and Magnetism*
- *Spring 1 – Nuclear Physics, and finally Space Physics*
- *Spring 2 – **2. Chemistry Topics**: States of Matter, Atoms, Elements and Compounds, Stoichiometry, Electrochemistry*
- *Summer 1 - Chemistry Energetics, Chemical Reactions, Acids, Bases and Salts, The Periodic Table*

Year 11: KS4

- *Autumn 1 – Metals, Chemistry of the Environment, Organic Chemistry, followed by Experimental Techniques*
- *Autumn 2 - **3. Biology:** Living Organisms, Cells, Enzymes, Nutrition, Transport within Organisms*
- *Spring 1 - Diseases and Immunity, Respiration, Coordination and Response, Drugs and Reproduction*
- *Spring 2 - Inheritance, Variation and Selection, Organisms and their Environment, Human Influences on Ecosystems*
- *Summer 1 – **iGCSE's***

Year 12: KS5

- *Autumn 1 - Kinematics and Projectile Motion, Forces in Action*
- *Autumn 2 - Forces in Equilibrium, Forces and Momentum*
- *Spring 1 - Forces and Materials, Electric Current*
- *Spring 2 - D.C. Circuits, Waves*
- *Summer - Interference, finishing with Particle Physics*
- *THE REMAINING TIME WILL BE GIVEN OVER TO REVISION AND EXAM PREPARATION*

Curriculum Intent:

The Oxford Lower Secondary Science curriculum is presented in four content areas: Scientific enquiry, Biology, Chemistry and Physics. Scientific enquiry is about considering ideas, evaluating evidence, planning investigative work and recording and analysing data. The Scientific enquiry objectives underpin Biology, Chemistry and Physics, which are focused on developing confidence and interest in scientific knowledge. Environmental awareness and some history of Science are also incorporated.

SIH Science Students will:

- *Be able to talk about the importance of questions, evidence and explanations*
- *Make predictions and review them against evidence*
- *Make predictions referring to previous scientific knowledge and understanding*
- *Identify appropriate evidence to collect and suitable methods of collection*
- *Choose appropriate apparatus and use it correctly*
- *Obtain and present evidence, make careful observations including measurements, present results in the form of tables, bar charts and line graphs*