

All Hallows RC High School

Believe. Belong. Achieve.



SCIENCE CURRICULUM OVERVIEW

HOD: M. Beacom

September 2026



Mission Statement

Believe. Belong. Achieve.

At All Hallows RC High School, we are a Christ-centred community committed to living out the Gospel values in every aspect of our school life. Our school mission is to inspire, support and challenge every member of our school. We **believe** that every person is created in the image of God and that they grow in faith guided by the teachings of Christ. We strive to foster an environment where love, peace, courage, justice and kindness guide our actions so we develop into compassionate, resilient individuals who contribute positively to the world around them.

We are a community built on love, demonstrating unconditional respect and kindness for all. By fostering strong relationships, we ensure that every individual feels that they **belong**, are valued, supported and accepted as part of our family. We celebrate our differences and each person's uniqueness. We encourage forgiveness and understanding to create an environment where every pupil can flourish in their own way.

Through these values, All Hallows RC High School nurtures the whole person spiritually, academically and socially so they can **achieve**. We are a school where the Gospel values are not just ideals but the foundation of everything we do. With Christ at the centre, we enrich the lives of our pupils and guide them on the path of faith, purpose and integrity.

Curriculum Intent

Our Intent

At All Hallows Science Department, we aim to give our pupils a KS3 & KS4 curriculum that is broad, balanced and relevant. We want to promote a love for learning and enquiry, as well as making science engaging and intellectually challenging. We strive for our pupils to learn and master skills which will help them understand and process the Science of yesterday, today and the future.

- **We aim** to create engaging lessons that promotes teaching for understanding rather than covering fragmented content.
- **We aim** to teach the pupils the KS3 National curriculum and use a logical order of objectives which uses big ideas to equip students for success at GCSE later on and in life.
- **We aim** to group topics so they are in a sequenced and logical order; a spiral idea where topics have a natural progression in order of increasing difficulty and understanding.
- **We aim** to have a bigger focus on practical skills in each topic so pupils are better prepared for 'working scientifically' type questions
- **We aim** for assessments to be interleaved so pupils are constantly revisiting previous topics to ensure their learning is holistic and not in a modular format.
- **We aim** to use various strategies to make sure pupils remember what they need to learn and retain it in their long term memory.

How will we do it?

- To develop scientific **knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics.
- To develop critical **thinkers** by understanding the **nature, processes** and **methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them.
- To be equipped with the scientific knowledge required to understand the uses and **implications** of science, today and for the future.
- To be **scientifically literate (fundamental and derived)** and therefore make informed decisions about everyday life and have an understanding of how science is practised by being able to describe, analyse and evaluate scientific charts, texts and graphs.
- To have an **appreciation for the natural world** around them and how to maintain a balanced lifestyle
- To have **fundamental experimental skills** to develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience.

KS3 Order of Teaching

Year	Term 1	Term 2	Term 3
Year 7	1. Matter - Particle model and separating mixtures 2. Reactions - metals, non-metals and acids-alkali 3. (a) Earth - structure	1. (b) Earth: Universe 2. Energy - energy costs and energy transfer 3. Forces - Speed and Gravity	1. Electromagnetism - Voltage, resistance and current 2. Waves - Sound and light 3. Ecosystems - interdependence and plant reproduction
Year 8	1. Organisms - Movement and cells 2. Genes - variation and human reproduction 3. Matter - Periodic table and elements	1. Reaction - chemical energy and types of reaction 2. Earth - climate and Earth's resources 3. Electromagnetism - magnetism and electromagnetism	1. Waves - wave effects, wave properties, and radioactivity 2. Energy - work, heating and cooling 3. Forces - contact forces and pressure
Year 9	1. Organisms - breathing and digestion 2. Ecosystems - respiration and photosynthesis 3. Genes - Evolution and inheritance	1. Organisms: Cells and the cell cycle 2. Matter: Atoms and Periodic Table 3. Energy: Energy and Global resources	1. Organisms: Body's organisation 2. Reactions: Bonding between elements 3. Electromagnetism: Electricity and Domestic uses

KS4 Order of Teaching

Year	Term 1	Term 2	Term 3
Year 10	· Infection and Response · Quantitative Chemistry · Particle Model of Matter · Bioenergetics	· Chemical changes · Radioactivity · Homeostasis	· Energy changes · Forces · Space (Physics only) · Inheritance and Evolution
Year 11	· Rates of Reaction · Waves · Ecology · Organic Chemistry	· Electromagnetism · Chemical Analysis · Chemistry of the Atmosphere · Using resources	· REVISION



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