Science

Curriculum intent:

To provide a high-quality science education in accordance with the Catholic ethos and charisms of the school. We believe that science provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity; all pupils are taught essential aspects of the knowledge, methods, processes and uses of science to enrich their lives and understand the world around them. Through building up a body of key knowledge and concepts, pupils will be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. We will use a wide range of methods to assess pupils learning so that we can best support pupils in their journey.

Year 8

	Content	Concepts and Skills
TERM 1	**Enquiry Processes** **Biology** – Looking at plants and ecosystems **Chemistry** – Periodic Table	**Enquiry Processes:** Maths– plotting graphs, rearranging equations, analysing and evaluating, understanding bias. **Looking at plants and ecosystems –** photosynthesis, food chains and food webs and bioaccumulation. **Periodic table** – metals and non-metals, development of the periodic table, melting and boiling points.
TERM 2	**Physics –** Electricity **Chemistry** – Chemical reactions **Biology –** Getting the energy your body needs	**Electricity –** Static electricity, measuring current and voltage, series and parallel circuits **Chemical reactions** – Elements, compounds and mixtures, metal reactions, fuels and combustion. **Getting the energy your body needs –** Skeleton, muscles, aerobic and anaerobic respiration.
TERM 3	**Physics –** Forces and magnetism **Chemistry** – Rock cycle **Physics** – key concepts **Key skills in science**	**Forces and magnetism –** forces, pressure, electromagnets and how motors work. **Rock cycle -** learn about the rock cycle and changes to the Earth. **Key concepts** – Brownian motion and density. **Key skills** – Review of variables, method writing, drawing graphs, conclusions and analysing data.