Sacred Heart High School

Key Stage 3 Curriculum

SCIENCE

INTENT *(the unique contribution the subject makes to general education)*

A high-quality science education 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, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.

Pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

(Science programmes of study: Key Stage 3 National Curriculum in England)

THEMES (KNOWLEDGE & UNDERSTANDING)

- structure and function in living organisms,
- the particulate model as the key to understanding the properties and interactions of matter in all its forms, and
- the resources and means of transfer of energy as key determinants of all of these interactions.

SKILLS

- work objectively
- modify explanations to take account of new evidence and ideas
- make predictions using scientific knowledge and understanding
- use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety
- collect, record and process data
- evaluate results and identify further questions arising from them

YEAR 7	YEAR 8	YEAR 9
Biology: Cells Biology: Structure and function of body systems Biology: Reproduction Chemistry: Particles and their behaviour Chemistry: Elements, atoms, and compounds Chemistry: Reactions Chemistry: Acids and alkalis Physics: Energy Physics: Space Physics: Sound Physics: Forces	Biology: Health and lifestyle Biology: Ecosystem processes Biology: Adaptation and inheritance Chemistry: The periodic table Chemistry: Separation techniques Chemistry: Metals and acids Chemistry: The Earth Physics: Electricity and magnetism Physics: Light Physics: Motion and pressure	[see separate Biology, Physics and chemistry Curricula]

ASSSESSMENT

Year 7:
Biology
Chemistry
Physics
End of year exam – all specialisms assessed

Year 8:
Physics
Chemistry
Biology
End of year exam – all specialisms assessed

STRETCH & CHALLENGE

Extension questions, research tasks, investigative projects.

ENRICHMENT OPPORTUNITIES

Year 7 trip to Natural History Museum, The Linnean Society Biomedia Competition, Nancy Rothwell award.