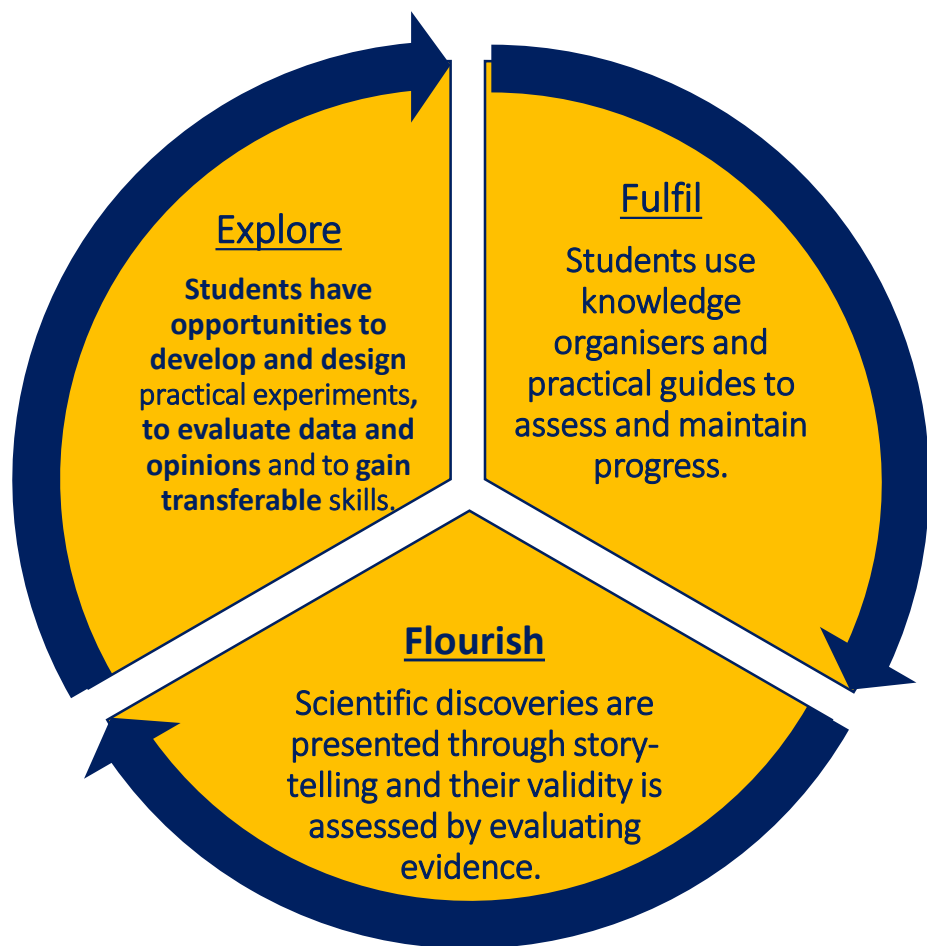


Science Curriculum – GCSE - AQA

Intent:

To transition students from KS3 to KS4 by developing independent thinking and investigative skills which allow study beyond GCSE. The students are provided with opportunities to link processes throughout the course allowing them to develop a series of transferable skills.



Topics

Biology

Cell biology and processes
Digestive system and enzymes
Circulatory system and respiration
Nervous and endocrine systems
Plant systems and bioenergetics in plants
Infection and response
Genetics and reproduction
Variation and evolution
Communities, feeding and recycling
Biodiversity

Chemistry

Atomic structure
The period table
Ionic, covalent and metallic bonding
Quantitative chemistry
Chemical reactions
The rate and extent of chemical change
Organic chemistry
Chemical analysis
Chemistry of the atmosphere
Using resources

Physics

Energy
Electricity
Matter and atomic structure
Forces
Waves and Electromagnetism
Space



Key skills and concepts developed in Science

Mathematical skills – eg: ratios, fractions, algebra and scales
Graph drawing skills
Method writing
Assessment of variables and maintaining controls
Recording and analysing results
Drawing conclusions
Evaluating evidence
Predicting outcomes

Wider Impact

Contribution to Cultural Capital/British Values and Wider Society/Careers/SMSC

There is a focus on how humans impact the world in which we live, from assessing our Carbon footprint to evaluating modern techniques and uses of cloning. Scientific discoveries are shared through storytelling and the quality of their findings are evaluated. Careers in science are discussed as topics are covered and regular sessions are given from external specialists.