BIOLOGY LEARNING JOURNEY

Intent

The intent of the Biology curriculum is to enable learners to become more scientifically responsible citizens, with the powerful knowledge to improve the life outcomes of all our learners. Students will be fully equipped with the essential knowledge to: be successful in their day to day lives, have the skills to evaluate information and process evidence following the methodology of science. Each pupil will leave with a deeper understanding of the world around them, the ability to question why, ask for truth and transparency in information, and our aim is to inspire all students for a love of learning, regardless of their chosen subjects.

Implementation

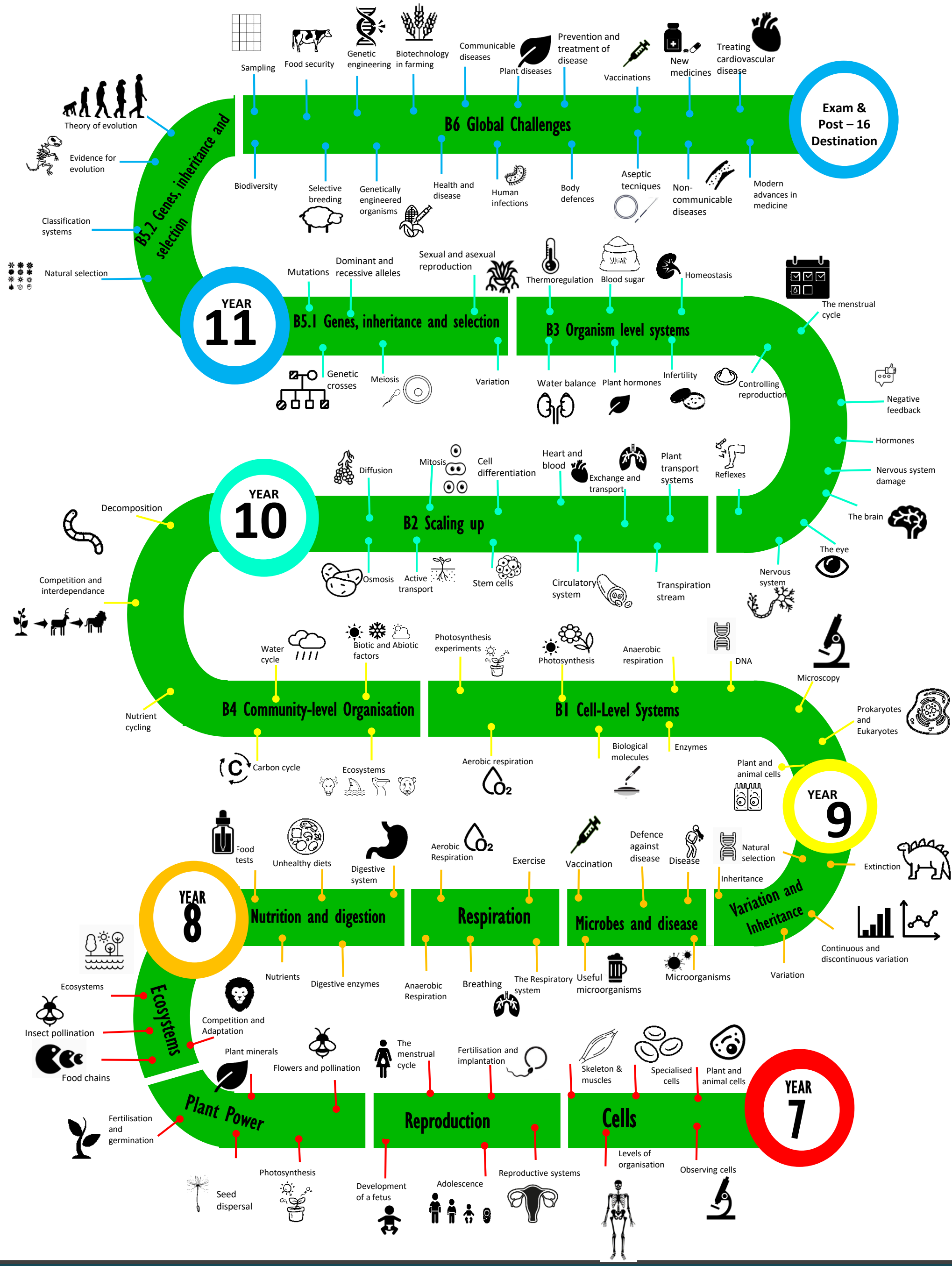
Students study biology topics as part of the Science curriculum in years 7 and 8. In year 9 work from Key Stage 3 on cells, plant power and ecosystems is reinforced with the first topics of the GCSE course.

At GCSE the OCR Gateway Biology course is followed which gives students a good grounding in Biology and enables them to develop practical skills and progress to level 3 courses such as A level Biology.

At A level the OCR A Biology course is followed, building upon the work of GCSE and extending it through the system Of practical assessments

Impact

Throughout the Biology curriculum, students are regularly assessed. They also have larger summative assessments, that follow the structure of the terminal examinations. We also monitor the students' successful completion of the Practical Assessment Groups. Following assessments students receive detailed formative feedback, which identifies the areas that they were successful in and provides targets for improvement. As a result, many successful students progress to University to study biology related subjects. All students, will have the opportunity and knowledge to thrive in modern day Britain, using the fundamental principles of Science to explore and evaluate contemporary scientific issues.



Learning Journey
PHYSICS

Intent

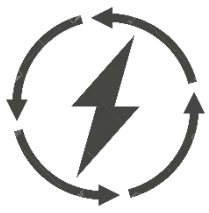
The intent of the Physics curriculum is to enable learners to become more scientifically responsible citizens, with the powerful knowledge to improve the life outcomes of all our learners. Students will be fully equipped with the essential knowledge to: be successful in their day to day lives, have the skills to evaluate information and process evidence following the methodology of science. Each pupil will leave with a deeper understanding of the world around them, the ability to question why, ask for truth and transparency in information, and our aim is to inspire all students for a love of learning, regardless of their chosen subjects.

Implementation

Students study Physics topics as part of the Science curriculum in years 7 and 8. At GCSE the OCR Gateway Physics course is followed which gives students a good grounding in Physics and enables them to develop practical skills and progress to level 3 courses such as A level Physics. At A level the AQA Physics course is followed, building upon the work of GCSE and extending it through the system of practical assessments.

Impact

Throughout the Physics curriculum, students are regularly assessed. They also have larger summative assessments, that follow the structure of the terminal examinations. We also monitor the students' successful completion of the Practical Assessment Groups. Following assessments students receive detailed formative feedback, which identifies the areas that they were successful in and provides targets for improvement. As a result, many successful students progress to University to study science related subjects. All students, will have the opportunity and knowledge to thrive in modern day Britain, using the fundamental principles of Science to explore and evaluate contemporary scientific issues.



Types of energy

Energy transfers

Car Safety

Stopping Distances

The Universe

Revision

P7 - Energy

P8 – Global Challenges

Efficiency

Renewable Energy

Seismic Waves

Space

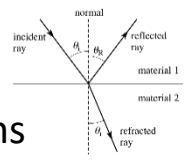
Life cycle of stars

Safety

Uses

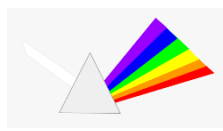
Alpha, Beta, Gamma

Diagrams



Refraction

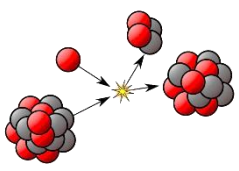
Hearing



Fusion

Fission

Nuclear Power



P6 - Radioactivity

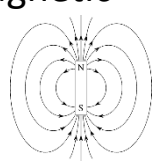
P5 - Waves

YEAR 11

Colours

Wave speed

Electromagnetic



Generators

Acceleration

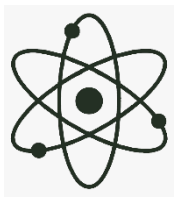
Newton's Laws

Circuit Components

AC/DC

Electromagnets

Transformers



YEAR 10

Vectors

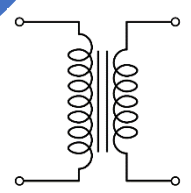
Momentum

Power

P2 – Forces and Motion

P3 - Electricity

P4 - Magnetism



Graphs of Motion

Hooke's Law

Electric Fields

Magnetic Fields

Motor Effect

Moments

Structure of the Atom

Kinetic Theory

Changes of State

Atmosphere

Density

Floating

Cooling Graphs

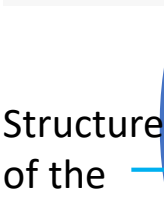
Particles

Pressure in Gases

P1 - Matter

YEAR 9

Atomic History

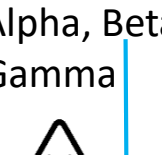


Specific Heat Capacity

Specific Latent Heat

Pressure in Liquids

Pressure in Solids



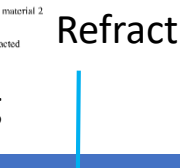
Types of Forces

Diagrams

Motion

Work Done

Colours



Circuits

Static

Biomechanics

Motion

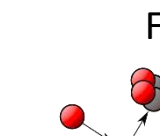
YEAR 8

Forces

Light

Electricity

Graphs



Balanced Forces

Reflection

Speed

Hearing

Floating

Waves

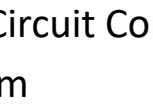


Photo-cells

Diagrams

Resistance

Gravity

Heating

Types of Energy

Magnetic Materials

Echoes

Electromagnets

Sound

Frequency

Space

Energy

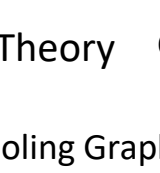
Magnetism

YEAR 7

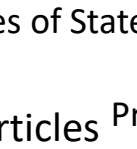
Waves

Solar System

Seasons



Planets



Fuel Bills

Magnetic Poles

Magnetic Fields

Chemistry Learning Journey

Chemistry at S. Peter's Collegiate School has a strong emphasis on the applying of knowledge and skills to the real world. The applications and implications of what we learn permeate throughout the course content.

Intent

The intent of the Chemistry curriculum is to enable learners to become more scientifically responsible citizens, with the powerful knowledge to improve the life outcomes of all our learners. Students will be fully equipped with the essential knowledge to: be successful in their day to day lives, have the skills to evaluate information and process evidence following the methodology of science. Each pupil will leave with a deeper understanding of the world around them, the ability to question why, ask for truth and transparency in information, and our aim is to inspire all students for a love of learning, regardless of their chosen subjects.

Implementation

Students study chemistry topics as part of the Science curriculum in years 7 and 8. In year 9 work from Key Stage 3 on particles, elements, mixtures, compounds and separation is reinforced before progressing to the formal GCSE content after Easter.
At GCSE the OCR Gateway Chemistry course is followed which gives students a good grounding in Chemistry and enables them to develop practical skills and progress to level 3 courses such as A level Chemistry.
At A level the OCR A Chemistry course is followed, building upon the work of GCSE and extending it through the system of practical assessments

Impact

Throughout the Chemistry curriculum, students are regularly assessed. They also have larger summative assessments, that follow the structure of the terminal examinations. We also monitor the students' successful completion of the Practical Assessment Groups. Following assessments students receive detailed formative feedback, which identifies the areas that they were successful in and provides targets for improvement. As a result, many successful students progress to University to study chemistry related subjects. All students, will have the opportunity and knowledge to thrive in modern day Britain, using the fundamental principles of Science to explore and evaluate contemporary scientific issues.