Key Stage 3

Subject: Science

Year Group: 7

Course Summary

Across KS3, Science is taught using a detailed scheme of work based on Oxfords 'Activate' course. The scheme not only allows students to develop and secure scientific knowledge, but also progressively develops students' ability to work scientifically. Literacy and numeracy are fully integrated into core teaching strategy in preparation for GCSE specifications.

During Year 7, students will study four modules of Biology, Chemistry and Physics. For summative assessment, students will complete short tests at the end of each topic as well as two working scientifically assessed investigations per term.

Biology: Students will discover what plants and animals are made of, how different structures work together to keep an organism alive and through the process of reproduction, how new plants and animals are created. Students will also compare the effects of healthy and unhealthy lifestyles on the body.

Chemistry: Students will learn that everything on Earth and beyond is made of atoms. Students will explore how chemical reactions make vital materials and transfer energy for almost everything we do.

Physics: Students will learn about how we see, and how light and sound waves behave. They will also learn about the place of Earth in the universe. Students will also investigate forces and begin to understand what keeps us from falling through the floor and allow astronauts to stand on the moon.

Autumn Term
1. Summative assessment - Cells
2. Summative assessment - Particles
3. Summative assessment - Forces
4. Working scientifically - investigation 1
5. Working scientifically - investigation 2
Spring Term
1. Summative assessment – Reproduction
2. Summative assessment - Reactions
3. Summative assessment - Light
4. Working scientifically - investigation 3
5. Working scientifically - investigation 4
Summer Term
1. Summative assessment – Health and Lifestyle
2. Summative assessment - Reactions
3. Summative assessment - Space
4. Working scientifically - investigation 5
5. Working scientifically - investigation 6

Key Stage 3

Subject: Science

Year Group: 8

Course Summary

Across KS3, Science is taught using a detailed scheme of work based on Oxfords 'Activate' course. The scheme not only allows students to develop and secure scientific knowledge, but also progressively develops students' ability to work scientifically. Literacy and numeracy are fully integrated into core teaching strategy in preparation for GCSE specifications.

During Year 8, students will study four modules of Biology, Chemistry and Physics. For summative assessment, students will complete short tests at the end of each topic as well as two working scientifically assessed investigations per term.

Biology: Students will look at why organisms need energy to function effectively and investigate the differences that exist between organisms, and why this is important for survival. Students will also begin looking at genetics, including genetically inherited disorders and how plant and animal genes can be changed to alter organism's characteristics.

Chemistry: Students will learn about the structure of the Earth, and the rocks of its crust. They will discover how we separate mixtures, and use chemical reactions to obtain the materials we need from the Earth and its atmosphere.

Physics: Students will discover how electricity works and how the electricity in your house is generated. They will learn why it is important to insulate a house and what you pay for when you pay your energy bills. Students will also find out how to use graphs to tell a story, and how forces explain gas and air pressure.

Autumn Term
1. Summative assessment - Ecosystems
2. Summative assessment - Periodic Table
3. Summative assessment – Electricity and Magnetism
4. Working scientifically - investigation 1
5. Working scientifically - investigation 2
Spring Term
1. Summative assessment – Adaptation
2. Summative assessment – Separation Techniques
3. Summative assessment - Energy
4. Working scientifically investigation 3
5. Working scientifically investigation 4
Summer Term
1. Summative assessment – Metals and Acids
2. Summative assessment – The Earth
3. Summative assessment – Motion and Pressure
4. Working scientifically - investigation 5
5. Working scientifically - investigation 6

Key Stage 3

Subject: Science

Year Group: 9

Course Summary

Across KS3, Science is taught using a detailed scheme of work based on Oxfords 'Activate' course. The scheme not only allows students to develop and secure scientific knowledge, but also progressively develops students' ability to work scientifically. Literacy and numeracy are fully integrated into core teaching strategy in preparation for GCSE specifications.

During Year 9, students will be taught two further KS3 modules for Biology, Chemistry and Physics. Students will then progress to a transition module covering all three subjects in preparation for GCSE. For summative assessment, students will complete short tests at the end of each KS3 transition and GCSE topic as well as two working scientifically assessed investigations per term.

Biology: Students will study how you can protect yourself from disease through immunisation and treat conditions using antibiotics. Students will also find out how forensic scientists help to solve crimes through the analysis of evidence found at the scene of a crime.

Chemistry: Students will learn about nanoparticles and the new materials that make them perfect for strengthening sports equipment, protecting electronic devices and treating disease. Students will also learn about vital turning points in chemistry. How did scientists find out what is in the atom, and what fossils tell us about the history of life on Earth? They will also discover how chemistry can help to solve crimes.

Physics: Students will learn about how technology from mobile phones to hospitals has changed the way we live our lives. They will learn about how our ideas about the Universe have changed, and how people discovered electromagnetism and radioactivity. Students will also learn about different types of telescope, new particles and how GPS works.

Autumn Term
1. Summative assessment – New Technology (Chemistry)
2. Summative assessment – Turning Points (Biology)
3. Summative assessment – Turning Points (Physics)
4. Working scientifically - investigation 1
5. Working scientifically - investigation 2
Spring Term
1. Summative assessment – Detection (Biology)
2. Summative assessment – Turning Points (Chemistry)
3. Summative assessment – Detection (Physics)
4. Working scientifically - investigation 3
5. Working scientifically - investigation 4
Summer Term
1. Summative assessment – Transition test (Biology)
2. Summative assessment – Transition test (Chemistry)
3. Summative assessment – Transition test (Physics)
4. Working scientifically - investigation 5
5. Working scientifically - investigation 6