



Overview

Students will develop their knowledge and skills in biology, chemistry and physics. As well as consolidating the curriculum content students will be acquiring 'working scientifically' skills throughout all topics. This will include completing practical activities. There will be a focus on fluency and skills related to the topics, such as graph drawing and analysing, identifying variables and evaluating scientific conclusions.

Autumn

7.01 Particles, Substances and Mixtures

Particle model of matter, diffusion, solutions and pressure, separating mixtures

7.02 Fundamentals of Physics

Forces, force diagrams, friction, energy stores and transfers

7.03 Cells and Organisation

Microscopes, cell structure, animal and plant cells, organisation, diffusion

Assessment

End of topic test for each unit.

Spring

7.04 Chemical Changes

Atoms and elements, compounds, chemical formulae, chemical reactions, conservation of mass, energy changes

7.05 Organ Systems

Uni- and multicellular organisms, gas exchange, breathing, digestive system, circulatory system, musculoskeletal system

7.06 Sound and Light

Sound waves, absorption, reflection, scattering, human hearing, light waves, colour vision, refraction, focussing, human vision

Assessment

Mid-year exam.

End of topic test for each unit.

Summer

7.07 Materials

Ceramics, polymers, composites

7.08 Life Cycles

Genes and inheritance, variation, growth and development, human sexual reproduction, puberty, human menstrual cycle, pregnancy, foetal development and birth, plant reproduction, asexual reproduction

Assessment

End of topic test for each unit.

End of Year exam will be based on all topics taught this year.

Resources for supporting your child at home

Continuity Oak lessons

BBC Bitesize

Sparx Science independent learning

Homework

Weekly Sparx homework.