

## OVERVIEW

Students will develop their knowledge and skills in biology, chemistry and physics. As well as consolidating the curriculum content students will be working scientifically throughout all topics. This will include completing practical activities and learning through discovery. 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

**7BC Biology – Cells**

Microscopes, Cell structure, bacteria and uses, yeast cells, Transport within cells and gas exchange.

**7CP Chemistry – Particles**

Particle Model of Matter, Diffusion, Solutions and pressure, Separating Mixtures.

**7PE Physics – Energy**

Energy paths and transfers, calculations of gravitational potential energy, kinetic energy, elastic energy, energy sources, renewable and non-renewable energy resources, sustainability.

**Assessment:**

End of topic test for each unit.

## Spring

**7BR Biology – Reproduction**

Puberty, Fertilisation, Gestation and Birth, Menstrual cycle, Plant reproduction, germination, variation, evolution.

**7CC Chemistry – Chemical Reactions**

Acids and Alkalis, Oxidation Reactions, Metals and Acids, Titration, Antacid Investigation.

**Revision for mid-year assessment**

Time will be spent revising topics from the autumn term for the mid-year exam.

**Assessment:**

Mid-Year assessment – 7BC Cells, 7CP Particles and 7PE Energy.

End of topic test for each unit

## Summer

**7PF Physics – Forces**

Force Diagrams, Contact and Non-Contact forces, calculations, weight and mass, Investigation speed, Friction, Parachutes, Distance/time graphs, speed calculations.

**8BE Biology – Ecology from Year 8 scheme**

Sampling, Photosynthesis, competition within plants and animals, adaptations, biodiversity, global warming, sustainability.

**Revision for End of year assessment**

Time will be spent revising all topics for the end of year exam.

**Assessment:**

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

End of topic test for each unit.

**Useful resources for supporting your child at home:**

Oak national academy lessons  
BBC bitesize

**Homework:**

Weekly Carousel Quizzes will be sent to yours and your child's email address.