Science

Year 10



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Autumn Term

In Year 10, biology content includes, communicable and non-communicable disease, photosynthesis, including plant organisation, and respiration. Chemistry knowledge is further developed in Year 10 with material such as quantitative chemistry, chemical change and electrolysis. In physics, energy builds on energy stores taught in Year 7. Student also learn about electricity, matter, specific heat capacity of materials and radioactivity.

Biology

Infection &response Bioenergetics (photosynthesis)

Chemistry

Chemical calculations Chemical Change

Physics

Electricity, circuits, series and parallel

Electricity in the home, AC and DC circuits, wiring a plug.

Assessment

- Mini tests covering short term recall
- Synoptic tests covering multiple units and longer-term recall
- Digital Platforms: Seneca Homework and Carousel Learning
- Biology Required Practical: Rates of photosynthesis,
- Chemistry Required Practical: Making Salt, Neutralisation
- Physics Required Practical: Resistance of a wire, series and parallel circuits

Biology

Bioenergetics (respiration)
Homeostasis (nervous response)

Chemistry

Rates

Spring Term

Summer Term

Physics

Forces in balance Forces in motion

Assessment

- Mini-tests covering short term recall
- Synoptic tests covering multiple units and longer term recall
- Digital Platforms: Seneca Homework and Carousel Learning
- Biology Required Practical: Reaction times
- Chemistry Required Practical: Electrolysis, Temperature Changes
- Physics Required Practical: Density investigation

Biology

Bioenergetics (respiration) Homeostasis (nervous response)

Chemistry

Electrolysis Energy Changes

Physics

Particle model of matter Radioactivity and atomic structure

<u>Savemyexams</u> – useful exam practice website

Assessment

Mini tests

End of Year Exam (Term 3)

- Biology Paper 1: Units 1-4 1h15min, 33.3 % of end of year grade
- Chemistry Paper 1: Topics 1-5 1h15min, 33.3 % of end of year grade
- Physics Paper 1: Units 1-4 1h15min, 33.3 % of end of year grade

Useful Resources for Supporting Your Child at Home: Carousel – revision & study pack flash-cards Seneca – interactive revision Physics and maths tutor – online exam question bank & flashcards Youtube – Free Science lessons Homework: Digital Platforms: Seneca Homework, Sparx Science, Carousel linked on Microsoft Teams