

What is your learning journey for Year 9 Science?

Applications
The enquiry skills unit prepares you with the skills that you need to fully understand the investigative aspects of GCSE Science. Following on from this, the topics covered in Biology, Chemistry and Physics give you some of the fundamental knowledge that is used throughout the Science course.

- Knowledge checks**
- Ongoing AfL through lessons
 - End of unit tests
 - Progress checks
 - Exam practice for each unit
 - Required practical activities in lesson

Content – Cells, specialised cells, microscopy, cell division, stem cells and transport in cells.
Bigger Picture Focus – To understand how knowledge of the fundamental building blocks that make up living organisms and can lead to the development of therapies to cure diseases.

Content – Photosynthesis, rates of photosynthesis, aerobic and anaerobic respiration, responses to exercise and metabolism.
Bigger Picture Focus – To understand the role of plants in our ecosystems and how, without them, we would not be here.

Content – Evolution of the atmosphere, atmospheric pollution, the modern atmosphere, human effects.
Bigger Picture Focus – To understand how the atmosphere is continually changing, and the impacts of human activities on it.

Content – Periodic table, element, compounds, atomic structure, groups of the periodic table.
Bigger Picture Focus – To understand how theories and ideas can change with new evidence, and how evidence may be collected

Content – Electrical charges & fields, current, voltage, resistance, power, circuits, National grid.
Bigger Picture Focus – To understand how demands on electricity production are increasing and leading to the need to build more power stations - is there a sustainable answer?

Content – States of matter, changes of state, gas particles, temperature changes & specific heat capacity, density, gas pressure
Bigger Picture Focus – To explain a wide range of observations the principles used when designing vessels to withstand high pressures and temperatures, such as submarines and spacecraft.

- Independent learning**
Tasks may include:
- Consolidation work
 - Educake quizzes
 - 6 mark exam questions
 - Past paper practice
 - Interleaved tasks

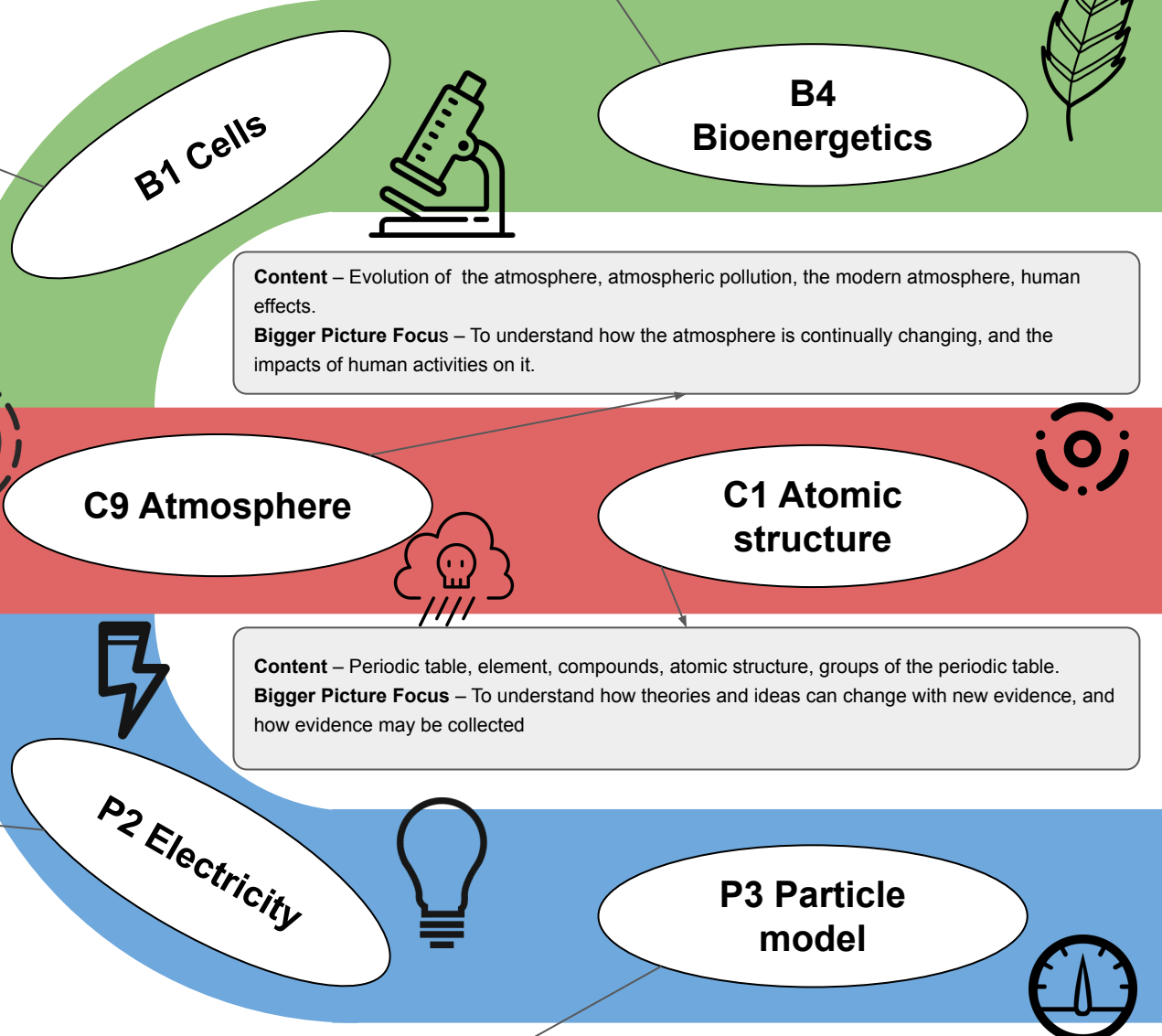
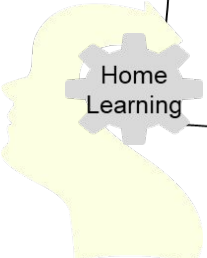


Enquiry skills



- This unit covers some of the key skills that you will use in Science:
- The maths skills that are used in science
 - How to draw and analyse graphs
 - Identifying variables
 - How to carry out an investigation
 - How to evaluate your work

- Useful websites**
- BBC Bitesize
 - mrrscience.com
 - GCSEPod
 - Oak Academy
 - Educake



Year 10 Science

Keep reviewing the work from these topics as you go through the year - it will help you to understand the work in Year 10 & Year 11.