

Subject	Year	Term
SCIENCE	7	1

Topic

B – Cells, C– Particles and Separating Mixtures, P – Energy

Content (Intent)

Prior Learning (Topic)

KS2 Science National Curriculum

Students will have learnt SKILLS making observations during experiments and applying observations to answer questions.

Students will have learnt and built upon their KNOWLEDGE about the concepts of energy, recall the three state of matter and use this knowledge to decide how mixtures may be separated, including filtering and evaporating. Students should be able to demonstrate their UNDERSTANDING of the cell structures in plants and animals and the movement of substances in and out of cells.

Future Learning (Topic) Structure and Functions, Elements and Compounds, Forces

What Knowledge and Skills will be taught (Implementation)

Chemistry - There will be a sequence of lessons which include the following themes; the particle model leading into techniques by which to separate mixtures

Physics – A sequence of lessons on types of energy, the difference between energy and power, energy dissipation and the conservation of energy principle.

Practical Skills – To make observations and collate data over a series of experiments.

Maths Skills –linear equations for energy calculations

Biology -There will be a sequence of lessons recalling cell types, observing cells and movement of substances in and out of cells.

Practical Skills – Develop and recall how to use a microscope and prepare slides for observation.

Maths Skills – Magnification Calculation and ratios

How will your understanding be assessed & recorded (Impact)

Formative Feedback Task (End of Unit tests)

Pupils given formative feedback only on the topics of Biology – Cells

Chemistry – Particles and Separating mixtures, Physics – Energy

Assessment 1 (December)

Summative assessment including:

- Cells
- Particles and Separating mixtures
- Energy
- Enquiry Process

All topics listed will also need to be recalled in: Year 8 Assessment 1 and Year 9 Assessment 1 and 2. Pupils given a percentage, formative feedback.

How can parents help at home?

Ensure all class work is completed and homework submitted on time.

Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers.

Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters. Ensure all pupils have all their resources required for science lessons, including knowledge organisers, exercise books, pens and calculators

Helpful further reading/discussion (including Reading and Vocabulary Lists)

Reading	Vocabulary Lists	
Use the Educake online learning platform	Distillation	Sublimation
www.educake.co.uk/	Chromatography	Mitochondria
Use BBC bitesize	Nucleus	Chloroplasts
https://www.bbc.com/bitesize/levels/z4kw2hv	Cytoplasm	Diffusion
Use and review the Knowledge Organisers used in class.	Cell Membrane	Dissipation