Bishop Heber High School

Subject	Year	Term
Physics	10	2

Topic

Atomic Structure and Radioactivity

Content (Intent)

Prior Learning (Topic) The Particle Model of Matter

Unit 4: Atomic Structure and Radioactivity

The structure of the atom, isotopes and the Plum Pudding Model of the atom corroborates students' learning in GCSE Chemistry but it leads onto learning and understanding the concept of nuclear radioactive decay and radiation. This is support by the context of half-life, contamination; Medical uses of nuclear radiation; and Nuclear Fission and Fusion.

Future Learning (Topic) Electricity

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Knowledge • Know the structure of the atom • Radioactive decay and nuclear equations • Use graphical analysis to interpret decay curves • Know the difference between fission and fusion	**Key Piece of work (Homework)** Pupils given a percentage and formative feedback provided. **End of topic test** Pupils given a percentage and GCSE equivalent grade. Formative feedback provided. **Year 10 Mock Exam (March)** Pupils given a percentage and GCSE equivalent grade. Formative feedback provided.
Maths Skills • Applying new formula in familiar and unfamiliar contexts. • The application of collected data into graphs and for analysis. **Practical Skills** • Reading measuring equipment with accuracy and precision, taking repeats, following methods.	**<u>Interleaving Topics:</u>** Unit 5: Forces – Interpretation of motion graphs, calculate acceleration, use equations of motion.

How can parents help at home?

Ensure all class booklets are complete 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, pens and calculators

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

Reading	Vocabulary Lists
AQA revision guides AQA revision cards EDUCAKE online learning platform. GCSE POD BHHS Knowledge organisers	Contamination Irradiation Half life Decay Tracers