Bishop Heber High School

Subject	Year	Term
Biology	**9**	**1**

Topic

Unit 1 Cells

Content (Intent)

Prior Learning (Topic) KS3 National Curriculum

Students will have learnt SKILLS including basic microscopy and drawing plant and animal cells. Carrying out practicals safely to obtain reliable results.
Students will have learnt and built upon their KNOWLEDGE about the concept of cells and how they are differentiated to carry out their functions.
Students will have UNDERSTOOD the structure of a cell and its components, methods of viewing cells, how cells are the basic units of living organisms.

Future Learning (Topic) Unit 1 Cells Continued

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Knowledge - Recall the difference between eukaryotic and prokaryotic cells. Explain how the main sub-cellular structures in animal, plant and bacterial cells are related to their functions. Explain how cells may be specialised and the structure of different types of cell relate to their function in a tissue, an organ or organ system, or the whole organism. Microscopy and transport in cells (diffusion, active transport and osmosis) are also explored. **Maths Skills** – Magnification calculation, change of mass calculations, graph drawing, interpretation of data. **Practical Skills** – **Required practical activity**: use a light microscope to observe, draw and label a selection of plant and animal cells. A magnification scale must be included. **Required practical activity**: investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue.	**Key Piece of work (Homework)** Pupils given a percentage and formative feedback provided. **End of topic test** Pupils given a percentage, formative feedback and GCSE equivalent grade. **Year 9 end of term 1 ,2 and end of year exams** Pupils given a percentage, formative feedback and GCSE equivalent grade. **<u>Interleaving Topics</u>** KS3 Activate topics will be revisited such as cell structure and microscopes.

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

AQA revision guides
AQA revision cards
Resources on Teams
EDUCAKE online learning platform.
GCSE POD
BHHS Knowledge Organisers

Vocabulary Lists

Eukaryotic
Plasmid
Prokaryotic
Sub-Cellular Structures
Nucleus
Membrane
Diffusion
Active Transport
Ribosomes
Differentiation
Specialised
Mitosis
Stem Cell
Osmosis
Concentration gradient