Bishop Heber High School

Subject	Year	Term
SCIENCE	8	3

Topic

Biology – Genes, Chemistry – The Earth, Physics - Electromagnets

Content (Intent)

Prior Learning (Topic) Ecosystems, Reactions, Energy and Waves

Students will KNOW how natural selection occurs and the reasons for diversity within a species and between species.
Students will UNDERSTAND the difference between series and parallel circuits, how to monitor and measure voltage and current, explain the difference between a magnet and electromagnet.
Students will use SKILLS to model global warming and the carbon cycle, plot a magnetic field and decipher the outcome of chromosomal inheritance through the use of Punnett squares.

Future Learning (Topic) Biology – Cells, Chemistry – Atomic Structure, Physics - Energy

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Biology - There will be a sequence of lessons which include: natural selection, Charles Darwin, extinction, diversity, inheritance, DNA and genetics (including genetic modification). **Physics** - There will be a sequence of lessons which include: Potential difference, resistance, series and parallel circuits, magnets, magnetic fields, electromagnets and their uses. **Practical Skills** – identifying components within an electrical circuit and creating circuits.	**Key Piece of work (Homework)** Pupils given a percentage and formative feedback. **End of topic test** Pupils given a percentage, formative feedback and grade. **Year 8 end of year exams** Pupils given a percentage, formative feedback and grade.
Chemistry - There will be a sequence of lessons which include: Global warming, climate change, the carbon cycle, extracting metals and recycling. **Practical Skills –** Modelling and interpreting processes/data for global warming and the carbon cycle.	**Key Piece of work (Homework)** Pupils given a percentage and formative feedback. **End of topic test** Pupils given a percentage, formative feedback and grade. **Year 8 end of year exams** Pupils given a percentage, formative feedback and grade.

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

Use the Educake online learning platform
www.educake.co.uk/
Use BBC bitesize
https://www.bbc.com/bitesize/levels/z4kw2hv
Use and review the Knowledge Organisers used in class.

Vocabulary Lists:

Carbon Cycle	Ammeter
Electrolysis	Voltmeter
Carbon Sink	Potential Difference
Ore	Solenoid
Greenhouse Effect	Electromagnet
Amps	Allele
Genetic Modification	Punnett Square
Recessive	Biodiversity
Chromosome	DNA