Bishop Heber High School

Subject	Year	Term
Physics	**9**	**2**

Topic

Forces

Content (Intent)

Prior Learning (Topic) Energy

Students will have a basic KNOWLEDGE on what speed is and its representation in the form of distance – time graphs. They will have learnt about different types of forces and how they can be represented.

Students will have a good UNDERSTANDING of what forces can do and apply the keywords associated with them into the correct contexts – e.g., air resistance and friction as an opposing force.

Students will have the SKILLS to calculate speed and the force needed to change the shape of objects, using Hooke's law as an example.

Future Learning (Topic) Forces

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Knowledge There will be a sequence of lessons which include the following themes: Scalars and vectors; Distance – time graphs; Acceleration; Velocity – time graphs; Equations of motion; Contact and non-contact forces, and force pairs; Weight, mass and gravity; Balanced and unbalanced forces; Newton's 2nd Law of motion; Momentum; Changes in momentum; Stopping distances; Stretching materials; Moments; Gears and Levers; Pressure in fluids; and Atmospheric Pressure.	**Key Piece of work (Homework)** Pupils given a percentage and formative feedback. **End of topic test** Pupils given a percentage, formative feedback and GCSE equivalent grade. Formative feedback provided. **Year 9 end term 2 and end of year exams** Pupils given a percentage, formative feedback and GCSE equivalent grade.
Maths Skills – learning new physics equations and applying them 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. Required Practical: Investigate Newton's 2nd law.	

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
EDUCAKE online learning platform.
GCSE POD
BHHS Knowledge organisers

Vocabulary Lists

Vectors	Resultant force
Scalar	Spring constant
velocity	Displacement