

Subject	Year	Term	
Physics	9	1	
Торіс			
Energy Stores and Transfers			

Content (Intent)

Prior Learning (Topic) Motion and Pressure

Unit 1: Energy

Students will revisit the basics on describing stores of energy but will be introduced to the equations for kinetic and potential energies. A detailed focus on how energy is transferred, looking at the mechanisms of transfer in a mechanical and heating context. A recap of energy resources but with a more in-depth understanding of them using key words and evaluating their effectiveness for UK purposes. Being able to understand and calculate efficiencies will work alongside the experimental element of power and energy transfers.

Future Learning (Topic) Waves

What Knowledge and Skills will be taught (Implementation)

Knowledge

There will be a sequence of approximately ten lessons which will include the following themes: Systems and stores of energy; Calculating energy within different stores; Work done and energy transfer; Power; Dissipation of energy; Energy Efficiency; Energy Resources; and Evaluating global energy supplies.

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 appropriate measuring equipment with accuracy and precision, taking repeats, following methods.

Practical: Investigate the effect of insulation on rates of energy transfer.

How will your understanding be assessed & recorded (Impact)

Formative Feedback Task (End of Unit tests)

Pupils given formative feedback on: Physics – Energy stores and transfers

Assessment 1 and 2 (December and June):

Summative assessment including:

- Energy Stores and Transfers
- Motion and Pressure (Year 8 Term 3 content)

Cumulative assessment will include Forces (Contact Forces and Gravity, Speed and Pressure) from year 7 and year 8.

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	
EDUCAKE online learning platform.	Stores	Kinetic
BHHS Knowledge organisers	Energy Transfer	Potential
Resources on TEAMS	Efficiency	Work
Glossaries	Power	Dissipation
	Resources	Renewable