

Subject	Year 9 Physics Content Autumn Term	How to support students' learning
Energy Transfer by Heating	Summary of concepts taught: <ul style="list-style-type: none"> ➤ Energy Transfer by Conduction ➤ Heating and Insulating Buildings 	Conduction is a topic you will be familiar with from year 8, bump up and review your GCSE knowledge by watching this video: Conduction - GCSE Physics - YouTube Read up about how you can insulate your home and save yourself money! How to insulate your home and stay warm this winter - Energy Saving Trust
Energy Resources	Summary of concepts taught: <ul style="list-style-type: none"> ➤ Energy Demands ➤ Energy from wind and water ➤ Power from the Sun and the Earth ➤ Energy and the Environment ➤ Big Energy Issue 	EDF have a great page of information regarding energy resources: Renewable Energy Types, Forms & Sources EDF (edfenergy.com) See what you can tell your parents about how to reduce the cost of energy at home! What are the energy challenges of the future? The biggest energy challenges facing humanity - BBC Future Read about this in the article above.
Molecules of Matter	Summary of the concepts covered: <ul style="list-style-type: none"> ➤ Density ➤ Density – Required Practical for GCSE ➤ States of Matter ➤ Changes of State ➤ Internal Energy ➤ Specific Latent Heat ➤ Gas Pressure and Temperature 	You will have covered density in lesson, use the simulation to have play with density of materials: Density - Density Mass Volume - PhET Interactive Simulations (colorado.edu) You will need to know about the density required practical for GCSE science. Watch the video here to review the content covered in lesson: Density - GCSE Science Required Practical - YouTube Read this BBC bitesize website about solids, liquids and gases: Solids, liquids and gases - The three states of matter - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize You need to know how solids can turn into liquids etc, watch this video about changes of state:

[Changes of State | Matter | Physics | FuseSchool - YouTube](#)

Read up about internal energy using the BBC Bitesize: [Internal energy - Temperature changes and energy - AQA - GCSE Physics \(Single Science\) Revision - AQA - BBC Bitesize](#)

Specific latent heat is a difficult concept, read about it first: [Specific latent heat - Temperature changes and energy - AQA - GCSE Physics \(Single Science\) Revision - AQA - BBC Bitesize](#) then try this website for questions: [Specific latent heat test questions - National 5 Physics Revision - BBC Bitesize](#)

Gas temperature affects its pressure when under a fixed volume, watch this video to recap your knowledge: [GCSE Physics - Factors Affecting Gas Pressure #29 - YouTube](#)