Energy Transfers

Topic Checklist / Progression Check

I know this colour green	I'm not sure colour yellow	I don't know this colour red

Subtopics and Learning Objectives	Start	End
Changing State		
- Recall that a substance does not change temperature while it is changing state		
- Describe what happens to particles during change of state		
- Describe the ways in which water and ice are different from other liquids and solids		
Temperature Changes		
- Explain how internal energy and temperature are different		
- Identify the direction in which energy will be transferred		
- Explain what happens to particles when a liquid evaporates		
Transferring Energy		
- Describe how energy is transferred by radiation, conduction and convection		
- Use the particle model to explain energy transfers in matter		
Core Practical – Investigating Insulation		
- Find out if the thickness of insulation affects energy transfer		
Controlling Transfers		
- Recall ways of reducing energy transfers		
Power and Efficiency		
- Describe what power and efficiency mean		
- Calculate efficiencies		
- Interpret Sankey diagram		
Paying for Energy		
- Explain how power companies charges for energy used		
- Describe what a payback time tells you		
- Work out payback times		

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