Assessment grid

Subject: **Science**   Year: **7**   Topic/module: **Energy**

KS4 target direction	4	6	8(9)
Advanced	Enrichment/extension – reaching, or part of, next pathway → Features of work may include:	Enrichment/extension – reaching, or part of, next pathway → Features of work may include:	Enrichment/extension Features of work may include:
Secure *Students must achieve competence in **all** statements before being judged 'Secure'*	**Secure** The student can: - Describe energy requirements in different situations - State the definition of the conservation of energy - Name the energy transfers through solids, liquids, and in air - Describe simply what happens in conduction and convection. - State some sources and properties of infrared radiation - State one advantage and one disadvantage of fossil fuels. - State the definitions of energy and power - State how work is calculated	**Secure** The student can: - Compare the energy in food and fuels with the energy needed for different activities. - Explain what brings about transfers in energy - Describe what happens when you heat up solids, liquids, and gases - Explain what is meant by equilibrium - Describe how an insulator can reduce energy transfer. - Explain how energy is transferred by radiation - Describe how electricity is generated in a power station - Describe the link between power, fuel use, and cost of using domestic appliances - Calculate work done - Apply the conservation of energy to simple machines	**Secure** The student can: - Calculate energy requirements for various situations. - Account for energy dissipation during transfers - Explain, in terms of particles, how energy is transferred. - Give examples of equilibrium - Explain why certain materials are good insulators - Explain how thermal equilibrium can be established - Explain how a range of resources generate electricity - Calculate and compare energy costs in different scenarios - Explain how conservation of energy applies in one example.
Developing	Mostly secure – one or more gaps For example:	Mostly secure – one or more gaps For example:	Mostly secure – one or more gaps For example:
Beginning	Significant gaps	Significant gaps	Significant gaps