**Triple Unit Overview – Energy** **Target grade for tests: …….**

**You will learn about:**

- All the changes involved in the way energy is stored when a system changes.
- The amount of energy associated with a moving object, a stretched spring and an object raised above ground level.
- Renewable and non-renewable energy sources.

**You will be able to:**

- Evaluate methods and suggest possible improvements and further investigations.
- Investigate the effectiveness of different materials as thermal insulators
- Explain patterns and trends in the use of energy resources.

| **Key learning points** | |
|---|---|
| Potential energy | |
| Kinetic energy | |
| Work done | |
| Energy transfer | |
| Power | |
| Specific heat capacity and required practical | |
| Dissipation of energy and energy efficiency | |
| Insulation Required practical | |
| Energy resources and global supplies | |

**Links to other subjects:**

**SMSC**

Show that science has the ability to identify environmental issues arising from the use of energy resources but not always the power to deal with the issues because of political, social, ethical or economic considerations.

**Numeracy**
Rearranging equation. Substituting numerical values into equations using appropriate units. Interpretation of graphs.

**Literacy**
Describe observations in practical work.

**Key Words**

**Energy**
**Joules**
**Kinetic**
**Gravitational potential**
**Chemical**
**Power**
**Watts**
**Closed system**
**Wasted energy**
**Useful energy**
**Efficiency**
**Insulators**
**Dissipated**
**Renewable**
**Non-renewable**
**National Grid**

| Research | Note-making | Group work & discussion | Memorisation | Precision & accuracy | Independence | Reflection |
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