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ENGLAND

WE'VE GOT THE POWER: curriculum links

Ri school shows create excitement and engagement with science, that skilled teachers can exploit for the children's benefit. Show content can be linked to the following curriculum topics in the classroom:

KS1

Working scientifically

- Asking simple questions and recognizing that they can be answered in different ways
- Using their observations and ideas to suggest answers to questions

Physics

- **Everyday materials** – identify everyday materials

KS2

Physics

- **Properties and changes of materials** – burning causes formation of new materials; conductors; reversible changes
- **States of matter** – gases, materials changing state when heated
- **Light** – light is reflected, light travels in straight lines
- **Electricity** – identify common appliances that run on electricity; conductors; electrical circuits
- **Forces and magnets** – magnetic forces

KS3

Physics

- **Energy** – fuel and energy resources, energy transfer in burning fuels; total energy is the same before and after a change; closing an electric circuit creates energy transfer
- **Matter** – internal energy stored in materials; difference between chemical and physical changes
- **Light waves** – transmission of light waves through materials; different frequencies of light; light transferring energy
- **Electricity and Electromagnetism** – current as a flow of charge; difference in resistance between conductive and insulating components; static electricity

Chemistry

- **Chemical Reactions** – rearrangement of atoms
- **Earth and Atmosphere** - composition of the atmosphere; impact of carbon dioxide on the climate; the carbon cycle; production of carbon by human activity and the impact on the climate
- **Atoms, Elements and compounds** – Dalton atomic model; difference between atoms/elements/compounds; chemical symbols and formulae for elements and compounds

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WE'VE GOT THE POWER: key vocabulary

Sustainability   Capacitor

Fuels   Carbon dioxide

Energy   Atmosphere

Infrared

Greenhouse gas   Electricity

Magnet   Generator   Electrons

Static electricity

Charge   Battery   Electrolysis