

## Electric!

### Workshop description:

This workshop looks at the history of energy; how did we use to cope before electricity? Students find out how much juice modern gadgets use and calculate their own ecological footprint.

### Summary of workshop:

- “What’s Watt?” appliance energy game.
- Presentation about the history of energy.
- Ecological footprint activity.

**Time:** 50mins-1hr

**Number of students:** 10-40

**Suitable for years:** 7-9

### Misconceptions:

- That newer gadgets use less energy than older gadgets.
- That using renewable energy is a recent idea.

### Learning outcomes

By the end of the workshop pupils should be able to:

- Name one gadget that uses a lot of electricity.
- Name one problem caused by fossil fuels.
- Give one source of renewable energy that has been used in the past and in the present.
- Explain one way that they could reduce their ecological footprint.

**Vocabulary:** KS3 –Watt, fossil fuel, acid rain, climate change, renewable energy

**Resources:** (All supplied by SWAP unless stated otherwise.)

Projector and laptop **or memory stick if the school has the necessary ICT system in place.**

Kettle, 2 lamps, energy meters, wind-up torch

What’s Watt game

Coloured cards and blutak for footprinting activity

### Duration

2mins

3mins

8-10mins

10-14mins

10-14mins

15mins

2mins

### Teaching and Learning activities:

Introduce myself, SWAP and what we will be doing in this workshop.

Get students to identify the different types of energy we want from appliances.

Explain what a watt is.

What’s Watt game; students guess how much power is used by different gadgets.

Presentation looking at how people used to generate energy, the industrial revolution and the development of the electricity supply, problems caused by fossil fuels and what forms of renewable energy we could use instead.

Footprinting activity; Students look at the environmental impact of the electricity they use, their day to day travel, their food production, the waste they produce and the holidays they go on.

Summing up.