British Gas Generation Green

# Energy Savers! Lesson plan



British Gas

national schools partnership

## Learning objectives

**By the end of this lesson learners will be able to:**

- Explore ways to save energy
- Consider and think about the energy needs of a variety of homes and people
- Apply mathematical skills to real-life contexts

## Subjects

**This lesson supports children's learning in PSHE (Personal, Social and Health Education), mathematics, geography and science.**

## Resources

- Energy Savers! Lesson PowerPoint
- Energy Stories Activity Sheets
- Money-Saving Ideas Activity Sheet



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# Starter activity

5 mins

**Slides 2 - 4:** Ask the learners if they can tell you some of the ways we use energy in our homes (e.g. for heating, lighting and to power electrical appliances). How many different examples of electrical appliances can they think of? Have they already used any today? Help them to appreciate just how much we use and rely on energy at home.

**Talk with the learners about why it is important to manage energy use:**

- For the environment
  - Electricity and gas traditionally come from fossil fuels and these are running out
  - Burning fossil fuels creates air pollution
- For families – saving money

# Main activities | Energy use

20 mins

Introduce the learners to the King and Cook families, who live next door to each other at numbers 20 and 22 Electric Avenue. Although their houses and families are the same size, the Kings and the Cooks spend a very different amount of money on energy each year **(slides 8 and 9)**!

**Ask the learners to calculate:**

- How much more the Cooks are spending on gas than the Kings
- How much more they're spending on electricity
- How much more they're spending in total

Show learners slide 10, which takes a look inside the two families' kitchens. This should give them some clues as to why the Cooks' electricity bill is so much higher than the Kings! Give them time to talk about the differences – you could ask them to circle things they spot.

**Talk through some of the ways that the Cooks are wasting energy, for example:**

- Leaving lights on in the daytime
- Leaving the hot tap running
- Leaving electrical appliances on standby instead of switching them off at the plug
- Leaving the fridge door open
- Using a hot setting on the washing-machine
- Using the tumble dryer instead of hanging out washing
- Over filling the kettle
- Leaving the back door and window open, allowing heat to escape

How do they think the Kings might have spent the money they saved on their energy bill?

# Main activities | Energy stories

20 mins

## Work through **slides 11 to 28** with the learners and talk about how we can all save energy at home by:

- Switching things off
- Generating renewable energy using solar panels and wind turbines
- Reducing the amount we use and using energy efficient appliances
- Keeping heat in
- Taking control of the energy we use and when we use it
- Making smart choices and knowing what energy we are using

How learners to think about how good you are as a family at saving energy? Is it something that you think about?

Display **slide 29** and explain to them that they're now going to offer energy-saving advice to different families and members of the community – the Wilsons, the Kapoors, the Nowaks and Richard Marks.

**You will need:**

- The 'Money-saving ideas' sheet (display **slides 30 to 32** as additional prompts)
- The 'Energy story' activity sheets

Ask learners to choose an energy story and read it out loud. Talk about how the family or individuals involved might save energy. Using the 'Money-saving ideas' activity sheet, encourage them to think carefully about one energy-saving idea that would be best given people's different circumstances.

Ask learners to complete the activity sheet, calculating the amount of money saved if their energy saving tip was implemented for one month.