Power to the people

Is using energy a human right? **Dave Lewis** encourages pupils to investigate the standard of living in developing countries and compare it to their own...

In all the talk about reducing our carbon footprint, another issue has been raised: whether access to and use of energy is a human right?

The developing world, with its large and increasing population, is rapidly modernising and its consumers want all the energy hungry toys the West takes for granted. In this set of activities, we'll look at the use of power in contrasting locations and whether it is fair to limit people's access to electricity.

I've also provided ideas for KS1 children that will help them to consider whether we use too much power in today's classroom.

KS1 ACTIVITY 1

The power to learn

HOW DOES OUR USE OF ENERGY IN SCHOOL DIFFER FROM THE PAST?

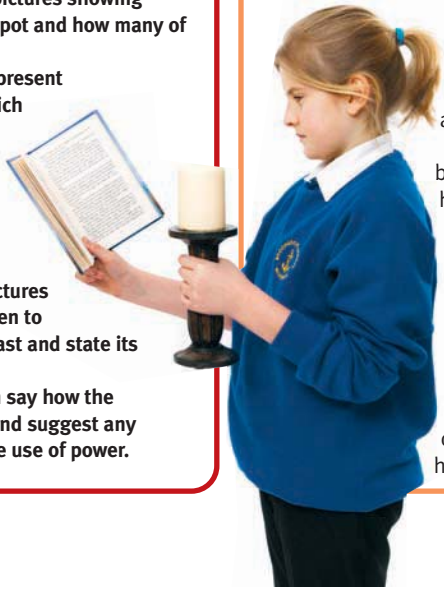
Today's schools are full of electrical devices and KS1 children should begin their project by identifying everything in their classroom that uses power. The class should then compile a list and discuss how each of the items helps them to learn (or not!).

Having done this, children move on to examine pictures showing classrooms from the past. What resources can they spot and how many of these use power?

Looking at the lists they have made of past and present classroom equipment, children can now consider which items use the most energy and which are the most effective. How does an interactive whiteboard compare to a blackboard as a teaching tool? Does this justify the IWB's power usage?

Images of historical classrooms can be found on the Staffordshire Past Track website http://tinyurl.com/yelzeho. If you're showing the pictures on the interactive whiteboard, you can ask the children to come up to the board, highlight an object from the past and state its equivalent in their own classroom.

Extend the activity by asking children if they can say how the changes have improved their learning environment and suggest any alternatives that could be used that would reduce the use of power.



KS1 ACTIVITY 2

Switch off

WHAT IS LEARNING LIKE WITHOUT POWER?

Organise a day where there is minimal or no use of energy at school. The children will learn without computers, interactive whiteboards, electric lighting, heating and use alternatives instead, including reference books!

The event needs to be prepared in advance and it's best to choose a bright, warmish day. Ask the children to help you plan by suggesting alternative ways to learn and produce light and warmth.

On the day, switch off - or remove - any devices in the classroom that use power. You may be able to place candles out of reach in safe locations to light the room. You'll need to be aware of health and safety regulations, but children should still be able to see the difference that power makes to their day.

Afterwards, you'll be able to talk about the differences and extend the experience by asking children how they felt working under very different conditions.

KS2 ACTIVITY 1

Facing facts

ARE WE USING MORE THAN OUR FAIR SHARE OF ENERGY?

The Y4 geography topic 'A Village in India' linked with the citizenship topic 'Living in a Diverse World' provides a great vehicle for looking at energy use in different countries, and the rights of an individual to a certain standard of living. For Y6 it can spark off debates on the fairness of carbon emission quotas.

Start by sharing these facts with the class to highlight the imbalance in energy consumption in different parts of the world.

- **India is the 6th largest consumer of energy. The UK is the 11th largest.**
- **India's population is 20 times that of the UK, but it uses less than one and a half times more energy.**
- **In the UK, the average person uses five times as much power as the average person in India.**
- **In India, only 44% of rural homes have electricity.**
- **Only 53% of all Indian homes are lit by electricity.**
- **25% of India's energy comes from renewable sources, only 2% of the UK's does.**
- **32% of the power India produces is 'lost' mostly 'stolen' by the poor (source: BBC News http://news.bbc.co.uk/1/hi/business/4802248.stm).**
- **The average income of a rural Indian family is 420 rupees a month.**
- **Electricity costs 180 rupees a month.**

KS2 ACTIVITY 2

Human rights

WHAT'S FAIR?

Ask the class what they think are the basic necessities that people need to have a good life. They will probably say water, food, shelter and clothing. Additionally, they may say education, transport, television and communication.

Now change the topic to what the children consider to be a 'human right' and highlight those suggestions that are generally considered to be so.

After the discussion, the children can find out more about the use of energy in India by reading the information and watching the video on the Channel 4 website (http://tinyurl.com/ydyxq5v).

Ask pupils what difference the arrival of electricity to the Indian villages has meant. Talk about why they need these changes and whether they would consider the availability of energy to be a 'right'.

You can now use the children's thoughts and this information to compare the lives of poor people in India to their own lives and ask whether it is fair that we have electricity and goods powered by electricity while they do not.

KS2 ACTIVITY 3

Carbon quotas

THE GREAT ENERGY DEBATE...

A great way to hold a discussion about people's right to use energy is to assign roles to small groups. These should include:

- **An Indian family living in a rural area without power**
- **An Indian family living in a rural area with power they pay for**
- **An Indian family who steal their power**
- **An Indian farmer suffering the results of drought and flooding**
- **A European family who have a car and a range of electrical goods in their home**
- **An eco-conscious European family**
- **A western country's energy environment minister**
- **An Indian energy minister**

Children can use some of the facts introduced earlier in the session, refer back to the Channel 4 article on energy theft and revisit the video to prepare their group for a classroom debate on the fairest way to achieve a worldwide reduction in carbon emissions. They will operate 'in role' during the debate. You may want to throw in questions like:

- **What do you think will be the effect of producing enough power to satisfy the basic needs of large populations in developing countries?**
- **Which countries are being more responsible with energy production?**
- **Which countries are being more responsible with energy usage?**

Use the answers and the work produced from the preparation and debate to do an 'India v the Western World' display so that other children can be involved in thinking about the fairness of carbon controls.

Once the debate is over, the final question to ask is 'Are we being fair in seeking to reduce carbon emissions globally or is the West selfishly hanging on to its power hungry toys whilst seeking to deny these to people in the developing nations?' Food for thought!