

Teacher notes for activity: Making an action plan for change

Resources for this activity

- Powerpoint slides to support activity with printable activity frames, available on www.ashdenawards.org/schools/activities.
- 5-minute Ashden Awards films, available on www.ashdenawards.org/schools/films:
 - **Nottinghamshire County Council, UK:** reducing carbon emissions by heating schools with sustainably-produced wood pellets instead of coal.
 - **Seaton Primary School, UK:** generating renewable electricity from a photovoltaic array and wind turbine, and solar water-heating for the swimming pool.
 - **Woodheys Primary School, UK:** reducing energy consumption through energy efficiency. Pupils read meters and check classrooms for energy wastage.
 - **Eastchurch Primary School, UK:** developing a culture of 'Good Energy Housekeeping', led by classroom Energy Monitors, and an 'E-team' of Year 4 pupils.
 - **Cassop Primary School, UK:** using wind and solar electricity, and wood-fuelled heating, and integrating the understanding gained into the curriculum and ethos of the school.
 - **Cumbria Energy Efficiency Advice Centre, UK:** helping local people make their homes more energy-efficient

Curriculum areas and topics

- Main activity: Science, English, Mathematics, Citizenship, Education for sustainable development (ESD).
- Further activities: English, Mathematics, Geography, Science, Citizenship, ESD, Science, Information and computer technology (ICT).
- Links to topics: Improving the Local Environment, Energy, Electricity, Light.

Suitability

- Upper Key Stage Two – age approximately 9 to 11 years.
- Main activity needs three or more lessons.
- The detailed objectives and approach can be adapted for use with different age groups.

Grouping

This activity will require whole class input and discussion and also group work. It will last over three or more lessons, so it will require groupings that vary for different objectives. Mixed-ability groupings may support enquiry and discussion but same-ability groupings may be useful for specific aspects of investigations.

Background

This activity provides relevant teaching approaches for schools which want to make a practical, lasting commitment to using energy more sustainably. Pupils are encouraged to choose an investigation into some aspect of energy efficiency and use this investigation to plan realistic and direct action within their school campus. They will have to brainstorm, work collaboratively and prioritise ideas. The activity can be used as it stands, or to set the scene for a longer unit of work. The final stage of the activity is to prepare and present an action plan to the senior management team (SMT) and/or governors.

It is really important that the school is committed to acting on the suggestions made. There should be proper feedback from the SMT or governors to the pupils, explaining what action will be taken, and also why certain suggestions may not be feasible. The work may feed into your School's Improvement Plan (SIP), and is a way of engaging pupils directly with a say in what happens at their school.

The activity provides an ideal opportunity to link with an organisation such as CREATE www.create.org.uk or Sustainable Learning www.sustainablelearning.info where your school can actively gauge and monitor energy use on-line and gain official accreditation.

Prior knowledge

Pupils should have some prior experience of energy monitoring around their school, for instance from the activities 'Being energy wise', or 'I want to be in the Energy team': Powerpoint slides and Teacher notes are available on www.ashdenawards.org/schools/activities. Pupils should be familiar with some of the key problem areas that lead to energy inefficiency, such as poor insulation and wasteful use of lighting. Pupils will ideally have some experience of contributing their views, for example through the school council. They should also have watched more than one of the school films and been able to discuss how pupils are taking action to improve their environment.

It would also be useful to watch the film about Nottinghamshire Council, who have changed to using sustainably-produced wood pellets, instead of coal, in their school boilers. Alternatively, watch the film showing the work of CEEAC in advising communities how to reduce energy use. These films could encourage pupils to start thinking about the power of change.

Purpose of the activity

- To be able to take responsibility for energy use.
- To be able to work collaboratively to solve problems.
- To be able to identify, plan for and support realistic changes.

How to use the resources

Part 1: making an enquiry plan - Powerpoint slides 1 to 6

The first lesson introduces the idea that positive changes can be made in school or at home, provided that they are backed up by relevant information, are achievable and are properly planned. After introducing the learning objectives, pupils will be asked to brainstorm ideas on

what needs to be changed in the way the school or class uses energy. These ideas may come from energy monitoring which they have already carried out, but there may be other ideas which are not backed up by evidence and need investigation.

From the initial brainstorm, pupils need to choose some priorities that can be investigated within a given time frame. This is open to teacher interpretation and you will need to apply your own class needs here – how long do you want to spend on an investigation? Pupils need to be encouraged and supported to identify the relevant background knowledge they will need and how to structure a suitable investigation.

The enquiry plan example, given on the Powerpoint, demonstrates to pupils some of the thinking processes involved. The general area of lighting is used as the example and there are plenty of aspects for investigation within this. If you decide to work on lighting, you may choose to focus on just one aspect - perhaps explaining the school's use of energy-efficient light bulbs through a survey. Alternatively, you might want to focus on the use (or lack) of natural lighting in classes and your actions would then be to inform other classes of the need for discrimination when using light switches.

You may already have useful information about your school to help initiate this process. This could include the School Improvement Plan, reports from the school energy team (if you have one), and Minutes of the school governors' Premises Committee.

The blank format of the enquiry plan template can be used by pupils to suggest ideas about what to investigate and how to go about it. The plan can be used either individually or collectively. At this point not all of the enquiry plan can be filled in, but it can be used as a record to refer to at a later stage.

Part 2: active investigation

A follow up lesson or lessons will be used to carry out an active investigation into the chosen topic. Pupils should prepare suitable recording methods before starting the investigation – for instance, a table listing the different rooms in the school and the different types of light, to carry out a lighting survey.

Part 3: preparing an action plan – Powerpoint slides 7 to 10

A final lesson or lessons will be used to decide what you have found out, how to present your evidence and what your recommendations will be. At this stage, the blank Action Plan template on the Powerpoint could be used to identify achievable steps that can be taken. It is essential that this process is carried through to an active conclusion, with Senior Management Team and governor involvement at the very least.

Further activities

This activity is an introduction to the active process of pupil participation and this experience can then be built on, using a number of different contexts. Once a plan is formulated, it will need to be reviewed and monitored to provide the opportunities for ongoing work.

- 1) If you have not already done so, watch the film about Nottinghamshire County Council's drive to convert their school boilers from coal to sustainably-produced wood pellets. Use

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Find out more: www.ashdenawards.org/schools

this to investigate specifically how your school is heated and devise a list of questions that can be put to the governors' Premises Committee. Pupils should be encouraged to think about important and relevant questions such as 'how old is the boiler?', 'How efficient is it?' and 'What fuel does it use?' and to find out how much energy it generates and how expensive it is. This kind of investigation could be carried out with an interested school governor, and could be a highly productive activity.

Science, English

- 2) Watch the CEEAC film to see how effective giving the right advice can be, then challenge pupils to be energy experts. Pupils could conduct home energy surveys and produce energy advice leaflets. Use the 'Energising the community' activity: the Powerpoint and Teacher notes are available on www.ashdenawards.org/schools/activities.

English, Mathematics, Geography, Science, Citizenship, ESD.

- 3) Devise a presentation to take to other schools or to your local council, with pupils as 'Energy Ambassadors' to show what you have found out and what savings can be made.

Citizenship, Science, ICT, English, Mathematics.

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