

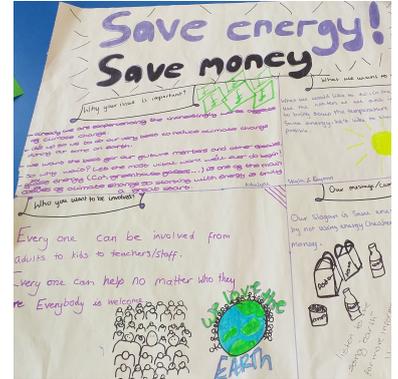
Energy Challenge

Challenge: How can we encourage everyone in school to use less energy?

Targeting: Everyone here including students, teachers, support & senior staff.

Issue: Carbon emissions from buildings are a key part of tackling climate change. We can save money and cut our carbon emissions by **making our buildings as low-carbon as possible.**

More insulation, efficient lighting and heating controls can have a big impact* and really help to bring down energy bills. Heating a building makes up 60% of an average school bill and simple changes have helped some schools to save over 30% of their energy-use.



We need to:

- use less energy for heat, lights, computers and electrical appliances
- insulate our buildings
- think about renewable energy
- encourage everyone to get involved

Task 1 Team discussion

Talk about your challenge and then write down notes for your presentation:

- Why is this issue important?
- What is already happening on this issue in school?
- Would you like to see more action and who should be involved?

Task 2 Generate ideas and solutions

Work as a whole group, or divide your group to come up with lots of different ideas and solutions.

Share your ideas and decide on one or two that you all believe will help to get other people involved.

Create a key message or catch-phrase to 'sell' your idea.

Task 3 Presentation

Work together to feed back your issue, ideas & message in a short presentation.

Ideas from other schools

Balcarras School

Balcarras School in Gloucestershire runs an annual **Thick Jumper Day!** as a yearly event. It encourages pupils to close doors and windows and to begin to think about how much energy we use for heating. Heating accounts for around 60% of energy use in school.

It is held just after Christmas and there is a competition on the day to see who has the best thick jumper. Because of when it's held, it gives students and staff a chance to dig out and re-use their Christmas jumpers!

Builth Wells High School

Builth's School Energy Management team has carried out a range of activities to raise awareness of energy-use and encourage pledges for action. They ran special events on World Environment Day including a 'Dress Up Bright' fancy-dress competition.

School governors have been presented with a report and one expert judge said, 'I was particularly impressed with the school energy audit that 40 students had put together. This is helping change behaviours in the school.' Teachers are now holding more lessons outside and are turning off lights and computer screens when not being used.

Energy - reduce your use



- Do an audit to see how many lights, computers and other pieces of equipment are left on when not in use over one full week and present your findings in school.
 - Run a **natural lighting campaign**. Ask teachers to turn the lights off at the start of each new lesson and decide if they're really needed.
 - Try labelling light switches which control lights closest to windows with red stickers. Ask people to leave these off on all but the duller days.
 - Have a poster competition and decide the best designs that to encourage people to turn lights off in empty rooms and at the end of the day.
- Install a Smart Meter and set up a rota to monitor it over a set time (this pilot, supported by Samsung for students to use [micro:bit technology](#) is going to be very exciting). Councils or energy companies can provide equipment and support.
 - Fit timers to appliances that are often left on overnight such as water coolers, laptop charging stations, drinks machines and vending machines.
 - Set computers to hibernate after 10 minutes of inactivity.
 - Encourage teachers to turn off projectors when not in use.
 - Ask your IT team to install **automatic shutdown software** if not already fitted.
 - See if you can get agreement from school leaders to set up a 'Green Fund' from a proportion of any money saved on bills.
 - Do research and convince people who can make a difference why they should be thinking about investing in renewable energy sources (solar panels etc).
- Check the temperature of classrooms. The recommended temperature is 18-20°C. Any warmer and the school is wasting energy. Every 1°C reduction saves approximately 8%. If it's too warm, ask your site manager to turn the heating down.
 - Hold a '**Thick Jumper Day**' - people dress warmly and heating is turned down!
 - Are people opening the windows in winter, letting out valuable heat? Run a campaign encouraging people to turn the heating down before opening windows.
 - Does the heating need to be on for so long? Try turning the heating on 10 minutes later and off 10 minutes earlier. Repeat until people notice!

Thanks to Severn Wye Energy Agency's previous Education Team for many of these ideas.

Challenge: How can we help school lunches to be very sustainable?

Targeting: Everyone including students & teachers, catering and senior staff.

Issue: Food production already has a big impact on the world's environment via methane and loss of forests. Richer countries have diets that include lots of meat and demand for meat is rising around the world. We need to eat less meat and more beans and vegetables and throw less of our food away. About a third of the food we buy goes straight to the bin.



A study found that **25,000 tonnes of food waste** is generated by secondary schools. This costs schools and colleges around £250 million a year, or about 22p of an average school meal. We need to:

- buy less meat, milk, cheese and butter
- eat more locally sourced seasonal food
- and throw less of it away!



Task 1 Team discussion

Talk about your challenge and then write down notes for your presentation:

- Why is this issue important?
- What is already happening on this issue in school?
- Would you like to see more action and who should be involved?

Task 2 Decide what will make a difference

Work as a whole group, or divide your group to come up with lots of different ideas and solutions.

Share your ideas and decide on one or two that you all believe will help to get other people involved.

Create a key message or catch-phrase to 'sell' your idea.

Task 3 Presentation

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Ideas from other schools

Badminton School Peer Vote: LEADERSHIP



Badminton's sixth form team pledged to decrease plastic pollution and food waste to reduce their school's carbon emissions. They excelled in engagement, working across the school from junior school "Eco warriors" through to the senior school, interviewing the school operations manager and meeting with senior staff.

Their marketing strategy really worked: the team set up an Instagram account (234 followers!), made inspiring media available, put up posters, and led an assembly. The school has agreed to an Environment and Resources officer, and the group are establishing an Environmental Committee for even more action next year.

Food – less meat, less waste



- Do a food-waste survey with your catering staff every lunch time for one or two weeks and present your findings to your school leaders.
 - Check out which meals are least popular so that this can be reported back.
 - Organise taster sessions to find out which non-meat options are most popular.
 - Trial a 'half-portion' idea served on smaller plates – a good especially where there isn't too much time to eat lunch.
 - Research what difference can be made by pre-ordering food, if that system is possible in school.
- Work with your Catering Manager to find out where your food actually comes from
 - Use your maths skills to work out how many miles have been travelled to get the food to your school for just one meal.
 - Organise visits to local farms and markets to find out about local produce
 - Find out whether there is a local scheme that will take unused food (still in date).
- Put bins for biodegradable waste in the canteen and staff rooms (including tea bags!)
 - Ask about setting up a compost heap if your school doesn't already have one
 - Record and tell everyone how much is being saved from general waste.
- Find out if your school or local venue has a plot of land you could use.
 - Seek advice and ask for support. There are lots of local groups who want to help.
 - Plant things you can eat – you can even get free fruit and nut trees from the Woodland Trust - and use school's own compost!

Thanks to young people at an ICN workshop in London for many of these ideas.

Travel & Transport Challenge

Challenge: How can we encourage more sustainable travel?

Targeting: Everyone at school including students & all staff.

Issue: [In the UK](#), more than 60% of UK journeys are by car. More than 75% of the goods we consume travel across the UK in vans and trucks. In the next 10 years, the aim is that at least 50% new cars and vans are ultra low emission, which means a big increase in electric cars and technologies.

Around 35% students now walk to school where a generation ago, the charity Living Streets says that [it was 70%](#). Sustainable travel means getting around by walking, cycling, scooters as having the least impact on the environment. These also have great benefits for health! Car-sharing, using trains, buses and can also help reduce the amount of carbon that travel creates.



We need to:

- walk or cycle short distances
- use public transport
- encourage everyone to get involved

Task 1 Team discussion

Talk about your challenge and then write down notes for your presentation:

- Why is this issue important?
- What is already happening on this issue in school?
- Would you like to see more action and who should be involved?

Task 2 Decide what will make a difference

Work as a whole group, or divide your group to come up with lots of different ideas and solutions.

Share your ideas and decide on one or two that you all believe will help to get other people involved.

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Task 3 Presentation

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Ideas from other schools

Balcarras School in Gloucestershire got a great idea for Clean Air Day from a partner school in Belgium! 'Empty Car Park' day saw staff and students getting to school by bus as well as walking and cycling. 76% students walk or cycle to school already so they were aiming high.

As a thank you for taking part, there were spot prizes handed out to pupils and staff had their names put in a hat for a prize draw! It really worked, with a significant drop in the number of cars and so a big difference to air quality around school that day. In fact, it was so successful, Balcarras now run it as an annual event.

Balcarras School



Travel and Transport – greener and healthier

- Do a survey of traffic outside the school at peak times
 - Find out how far journeys are and make a travel map of distance to school
- Find out which options for reducing car use are most popular, for example
 - walking scheme with rewards linked to school house points
 - safer bike routes & training (look up *Bikeability*)
 - one-off or more regular 'Empty Car Park' days (see Balcarras above)
 - car sharing for those living close to each other
 - public transport schemes
 - restrictions on certain roads
 - school bus
- Present your findings to school, and parents and start a campaign for the change you think is most important.
- Use your research to inform your local Councillors if appropriate.
- Ask your Council for advice with a sustainable travel plan (look up *Modeshift STARS*) or see organisations like *Living Streets* for lots of ideas that you could promote in school.
- Find out about local air quality and pollution hotspots via local [Air Quality Monitoring Centres](#) or by setting up and monitoring your own diffusion tube outside school with your science department. See <https://uk-air.defra.gov.uk/aqma/>

What we buy & use:

Waste Challenge

Challenge: How can we help our school to reduce single-use plastic?

Targeting: Everyone here - teachers, catering staff and suppliers, students.

Issue: We live in a wasteful society where we: make; use (often just once); then throw away products. In the UK over **35 million plastic bottles are used every day**. Nearly 16 million plastic bottles aren't being put out for recycling. If a year's worth of the UK's unrecycled plastic bottles were placed end to end, they'd reach around the world [31 times](#) (says WRAP).



There is also a lot of attention on the way that clothes are produced, sold and then thrown away. Globally, **only 20% clothes are recycled** – the rest are either incinerated or go to landfill. We have to think about what we use on a daily basis, and ways to have less impact on our environment.

We need to:

- live with less plastic
- recycle and reuse as much as possible
- demand sustainability in everything we buy and use

Task 1 Team discussion about your challenge

Talk about your challenge and then write down notes for your presentation:

- Why is this issue important?
- What is already happening on this issue in school?
- Would you like to see more action and who should be involved?

Task 2 Decide what will make a difference

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Ideas from other schools

Chosen Hill School

Peer Vote: **INSPIRING OTHERS**



Chosen Hill's Year 7 and 8 Student Green Group, with the support of a Staff Green Team, have worked hard to change attitudes starting with single-use plastic and waste. They liaised with their school's waste management and catering companies and decided to highlight how litter is encroaching on our natural environment.

Textiles students transformed concerns surrounding 'single use plastics' into a unique dress complete with plastic dust-sheet leaves. In school, and at the Summit, the group has succeeded in capturing their peers' imaginations, helping to motivate others into action.

Pittville School



Pittville's School Parliament team has succeeded in involving their whole school community. New recycling boxes in every classroom have drastically cut plastic and paper waste. The team has also created a well thought through 'self-sustaining' scheme to increase recycling of clothes whilst raising funds for more action.

Pupils regularly donate clothes to sell to a local charity. This income is 'ploughed' into the school garden to grow fruits for catering and for pupils to make jam. Produce will be sold at school sales and funds returned to the scheme. Our expert judge said, 'A great plan with very effective results.'

What we buy & use – reduce, reuse, recycle!



- Make an 'installation' from just one week's single-use plastics and cans – tell everyone and ask school if you can have special bins for collections during that week.
- Could your school become free of single-use plastic?
 - Campaign to cut out plastic bottles and plastic cutlery across the whole school
 - Charge less when students bring their own containers for drinks and food.
 - Ask for more water fountains to re-fill your bottle
- Find out your school's paper re-cycling rates and plan an awareness raising campaign or competition to increase the rates, and maybe raise funds for your Green Fund!
- Hold an awareness raising assembly and ask your fellow students to give their ideas for reducing waste. School council can decide which ones will become a campaign.
- Have a poster and signs competition to put on recycling bins and around school; also a poetry competition to promote recycling.
- Ask school to become a 'Waste-free lunch' school to include everyone bringing packed lunches each day.
- Hold a catwalk show by re-using old clothes or put up a display about ethical fashion.