ENERGY

Reducing energy use and investigating greener energy sources.



At School:

- Research where energy comes from and the difference between renewable and nonrenewable sources of electricity for powering your classroom.
- Create a school energy saving plan and encourage lights and devices to be turned off when not in use, or turn down the heating.
- Write your energy diary in an English class, how much energy do you think you use in a day?
- Look into how much energy it takes to power regular household appliances could you create enough energy by cycling to turn on a light bulb? Or charge a battery to boil a kettle?
- · Make a lemon battery in a science class
- Find out your carbon footprint and compare it to a pupil in another classroom or even another country
- Support Earth Day or Earth Hour. Switch off for an hour and read or go outside, perhaps this could be a regular activity or you could do a 'no energy day'
- Learn about how we make batteries and what they're used for, we'll need more and more when we start driving electric cars.

At home:

- Look around the house and take note of things which use electricity. Use a smart meter or take meter readings to find out how much energy is being used. Could you save money and energy by using less or switching to renewable electricity?
- Switch off electrical devices when they're not being used.
- See if you could turn the heating down by one or two degrees, maybe you'll need a jumper!
- Collect any old batteries and take them to the supermarket to be recycled.

Teachers & Staff:

- Find out about the school's energy use and providers and see if your school could save by switching. Eco-Schools can save over £3,000 on their energy bill.
- Could your school be eligible for low-carbon heating and electricity opportunities such as solar panels (PVs) or air-source heat pumps?
- · Has the school taken advantage of energy saving measures such as low energy light bulbs?

- Eco-Schools
- Energy Saving Trust: Energy Saving Schools Challenge
- ISBL: Energy use in schools factsheet
- Schools Energy Cooperative
- Energy Sparks: Activities
- UK Government: Top tips for saving energy in schools
- Sustainability and Environmental Education: Resources for schools
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources







BIODIVERSITY



At School:

- · Do monthly wildlife counts to track what you see at different times of the year
- · There are lots of different surveys you can do to track biodiversity
- Create biodiversity maps looking at plants, trees, wildlife and animals in the school grounds
- · Make a wildlife garden to encourage bees and other insects to visit
- · Create biodiversity posters to place around the school
- Start a kitchen garden to find out how different fruits and vegetables grow and to see how easy (or difficult) it can be
- Look at all of the street trees across the Borough and those closest to your school and make tree species lists including size, canopy cover, leaf shape etc.
- · Look at animal habitats and see how different animals live
- Create a blue and green map of the Borough, looking at the relationships between different environments

At home:

- Write a biodiversity diary. What can you see in the garden? What can you hear at different times of the day? What kind of wildlife can you see? How do the trees change during the seasons?
- Birdwatching map all of the birds you see over a week or even a month, and get involved with the Big Garden Bird Watch
- · Make birdfeeders to encourage more birds into your garden
- Why not create a space in your garden for wildlife to flourish? Leaving just a small patch of land unmown creates a fantastic space for flora and fauna to flourish. Why not make it into a mini wildflower meadow?
- Create your own mini Kitchen Garden and experiment with growing new fruits and veg
- Create a hedgehog highway with your neighbours to allow them to move from place to place
- · Look at green walks to school that take trees and green spaces with your parents and siblings

Teachers & Staff:

- Encourage external speakers to come in and speak about Biodiversity and local conditions across the Borough
- Does the school have any connections with nearby Nature Parks?
- Can you section off a section of the school grounds and turn it into a Biodiversity Area?

- Eco-Schools Pinterest board
- Eco-Schools
- Plantlife
- Forestry England
- Grow To School
- · RHS campaign for School gardening
- The Wildlife Trusts
- Buglife
- Hounslow Greentalk

- Field Studies Council
- Kew Gardens Learning
- Natural History Museum Schools
- Sustainability and Environmental Education
- Woodland Trust resources for Schools
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources
- RSPB Teacher







SCHOOL GROUNDS

Enhancing where you work and play.

At School:

- Count the different types of trees and plants you can see around school, create a bar chart of the different types in a maths lesson
- Try growing flowers or vegetables in the classroom or in the kitchen at home.
- What does the area around your school look like in each of the four seasons, can you make some art which shows the changing colours through the year?
- Get your school involved with tree planting in Hounslow. Trees and plants can improve our mental and physical health, as well as providing habitats for animals and insects.
- Design an eco-garden or natural area for your school, how can you attract wildlife to the area?
- Find out how your school grounds can help with local biodiversity and encourage pollinators to visit.

At home:

- Go to your nearby park or a garden what can you see? Compare this to the area around your school
- Use the Hounslow Greentalk website to look up what trees are near your house. Design a short walk where you can see as many different types as possible.
- Count the number of different trees or plants you see on your walk to school.
- · Look out for moss and lichen, this can be a sign of good air quality.

Teachers & Staff:

- Consider allowing a portion of grass at school to grow out for a month or more, this will help local wildlife
- Change a car parking space into a 'pocket park' to brighten up the area and introduce new green space
- Research opportunities for tree or hedge planting schemes, either at school or elsewhere in Hounslow. A new 'green barrier' between the playground and nearby roads may help reduce air pollution.
- Organise a Greentalk session at school to help children identify and label trees in school grounds.

- Eco-Schools
- London Borough of Hounslow: Trees
- RHS Campaign for School Gardening
- Countryside Classroom: Resources
- Woodland Trust: Free Trees for Schools
- STEM: Air quality and lichen study activity
- WWF: Food & growing resources

- Hounslow Greentalk
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources







TRANSPORT

Finding more environmentally friendly ways to travel.



At School:

- Try walking, cycling or scooting to school. Compare how long each one takes!
- On Google Maps, ask pupils to map their route to school by car, cycling or walking. Can they find a quiet route to avoid main roads?
- Travel survey ask pupils in your class how they get to school and record numbers.
- Produce a clean air map for your journey to school to help you choose the cleanest route to travel. This can be done with STARS or 'Cleaner Air Sooner'.
- Research new forms of travel and envisage a world of futuristic eco-friendly travel. How might you get to school or work in the future?
- Take part in a school anti-idling event in conjunction with Hounslow Council and Idling Action London. Encourage those at school to switch off their engines to keep the air clean.
- Learn about the health & environmental benefits of active travel and improved air quality.
- Get involved in events: Walk to School Week, Bike Week, Clean Air Day and Car Free Day.
- Aeroplanes can be a fast way to get around the world, but they have a big carbon footprint.
 Pick two places in the world and try and think of another way to travel between them. You might use buses, trains, boats, or active travel like cycling!

At home:

- How many times do you travel by car in a week? How does this compare to other modes of transport such as taking the bus or scooting?
- Keep a food diary and write down where your food came from, and how far it travelled to get from where it was grown to your plate.
- Try out Hounslow's free cycle training or Dr Bike sessions. Our safe cycling sessions, held in Hounslow's parks, include adapted bikes which anyone can use.
- Use the 'Try before you bike' scheme to trial a new bike before you buy one. This can be used by all the family.

Teachers & Staff:

- Sign up to TfL STARS to complete activities aimed at improving active travel.
- Book a free Bikeabilility cycling course for Year 6 via Hounslow Council
- Try changing your own travel behaviour to set an example for pupils and parents.
- Improve secure storage infrastructure for children to keep their bikes or scooters.
- Look into implementing a School Street outside your school gates for a safer drop-off and pick-up time via Hounslow Council.
- Draw up a School Travel Plan or a School Active Travel Policy to encourage safe, healthy travel both to school and beyond the gates

- Eco-Schools
- Idling Action
- Hounslow Travel Active
- Hounslow Council: Cycling in Hounslow
- THINK: Road safety resources
- Cleaner Air Sooner

- TfL STARS Programme
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources







MARINE

Protecting all rivers, canals, lakes and oceans.



At School:

- Learn about the way plastic waste impacts marine life and water sources.
- Collect the plastic you use in one week to see how much might be going into the rivers and oceans. This can link to the Litter pathway.
- Use the plastic and other waste to create an under-the-sea poster or piece of art showing why protecting our marine life is important.
- Organise a litter pick at school or in a local park.
- Watch an episode of Blue Planet and write a page about your favourite sealife.
- Find out more about your local river. Supplement this with a school trip with the <u>Thames</u> Explorer Trust.
- Research how and why the ocean is so important to our lives on land.
- When learning about climate change and global warming, consider the impact of melting ice caps and rising sea levels on areas of the UK and countries across the world. What impacts might this have on the people who live there?
- Find out more about coral reefs such as the Great Barrier Reef off Australia. What impacts is climate change having on marine life in these areas and what can we do to help prevent it getting worse?

At home:

- If you go on holiday to the beach or near a river, try attending a 'beach clean' event and collecting litter to stop it going back into the water. How many types of plastic rubbish can you collect?
- Cut down on your plastic use at home by using reusable plastic bags and buying groceries loose instead of wrapped in plastic. Use a reusable water bottle instead of single use plastic bottles.

Teachers & Staff:

 Deliver or organise an assembly about the importance of reducing our use of single use plastic, and introduce some ideas for pupils to reduce their contribution to the issue of plastic pollution.

- Eco-Schools
- Kids Against Plastic: Become Plastic Clever
- Marine Stewardship Council: Ocean Sustainability
- Defra: 'Our Commonwealth Ocean'
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources
- A Life on Our Planet: Revive Our Oceans with David Attenborough







WATER

Protecting an important natural resource.



At School:

- Think about the way you use water at school throughout the day, eating, drinking and washing hands. Can you estimate how much water you use in a week?
- Compare your usage to another pupil, a teacher or the average from another country. Why might they be different? This can link to the Global Citizenship pathway
- If you have a school garden, why not install a rainwater collection system to recover water to use on the plants?
- Arrange a presentation from Thames Water about the work they're doing to cut down on wasted water.
- Research the water cycle and the importance of being thoughtful in your use of water which has been carefully collected and cleaned.
- Make a poster showing the different stages of the water cycle.
- How much water does it take to make every day items such as food, clothes or toys? An example case study: Walkers Crisps
- Learn about the risks of flooding and how this can be impacted by climate change. What steps can be taken to protect Hounslow from flooding?
- How much water do you drink in a day? This can link into the Healthy Living pathway

At home:

- Speak to your parents about your water bill and, if you're on a water meter, what can be done
 to reduce it.
- Try having a shower rather than filling the bath and turning the tap off when you brush your teeth! Share water-saving tips with your family and friends.

Teachers & Staff:

- Consider drainage on school grounds and the potential risks of inadequate drainage in the event of heavy rainfall.
- Sustainable drainage systems (SuDS) can be an opportunity to promote biodiversity on school grounds while minimising disruption from heavy rain.

- Eco-Schools
- WaterAid: Resources
- Thames Water: Education
- Water Explorer
- Toilet Twinning
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources







GLOBAL CITIZENSHIP



At School:

- · Focus on international stories, as well as stories from across London and the UK
- Learn about the Sustainable Development Goals and how different Countries are working on them
- Get involved in Fair Trade Fortnight to find out how sustainable your purchases are, and find out how Fair Trade products are made and sourced sustainably and ethically
- Learn about human rights and why they matter
- Learn about Active Citizenship and how to make your voice heard there are so many issues to work on including recycling, right to education, health and wellbeing, poverty, equality etc.
- Write to your MP about local issues and why you care about them
- · Learn about world art and culture
- Create world flag and country charts to learn about the different continents across the world
- Research prominent young people who are passionate about making change Greta Thunberg, Malala Yousafzai

At home:

- Read the world news to find out what is happening across the world
- Write to your MPs about local issues and why they're important
- Connect with others in your local community and talk about the benefit of communities and why feeling part of a community is something to be celebrated

Teachers & Staff:

- Organise to partner with another school (in your Twinned City) to compare stories, learn about daily life, find out about Education in other Countries etc.
- Can you organise a Pen Pal Exchange?
- Could you organise a Global Citizenship Festival?

- Eco-Schools
- Eco-Schools Pinterest board
- World's Largest Lesson
- Twinkle Global Citizenship resources
- Population Matters
- Gapminder teaching materials
- UNESCO Global Citizenship Education
- Sustainable Development Goals

- Oxfam's Global Citizenship Guides
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources
- Ideas forum
- UN Global Issues







HEALTHY LIVING



At School:

- Investigate where food comes from, including growing, collecting, harvesting, storage, preparation, delivery etc. and the impacts of different foods on the environment
- Look at the sugar content of different foods and try to guess which one has the most sugar you might be surprised at the results!
- · Create class recipe books with every student submitting their own healthy recipe
- · Get involved with plogging
- · Create an exercise diary tracking your exercise across a week or month
- Organise monthly litter picks in the school grounds to encourage spending time outside whilst also doing something great for the environment
- Look at all the local foods that Hounslow has why is it important to buy locally?
- · Why not have a mindfulness session every month to focus on wellbeing?
- Learn about the importance of plants and why they are great to have in your home
- Create productivity tips and hang on the wall to remind everyone

At home:

- Cook without meat at least once a week. Why not create your own recipes to try at home?
- Encourage your parents and siblings to walk more, cycle more and explore your neighbourhoods more
- Start to grow your own fruits and vegetables
- Set daily challenges with your family to get out more

Teachers & Staff:

- Ensure that your school encourages walking to school
- Put up anti-idling posters and banners outside your school to encourage those who drive to school to turn off their engines when waiting
- · Can you separate a section of the school grounds to create a mini Kitchen Garden?

- Eco-Schools
- Eco-Schools Pinterest board
- One You Hounslow
- Better Points App
- Change4Life
- NHS Schools resources
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources





LITTER



At School:

- · Create litter diaries whenever you see litter in the schools grounds
- · Create posters to put onto local bins and in local spaces to encourage people to bin their litter
- Organise a monthly litter pick
- Look at different countries across the world to see how they dispose of their litter is it the same as in the UK? Is it different?
- Get involved in plogging litter picking and keeping active
- Learn about local young activists who are cleaning up their environments and raising awareness about the issues
- Run a workshop on the Great Pacific Garbage Patch
- Learn about how long it takes various items to decompose you might be surprised!
- Create a basketball recycling station
- · Learn about plastic PET numbers and whether they are recyclable or not
- · Could you create a school litter petition and encourage all students to sign it?

At home:

- Pick up litter on your walk to school and document what type of litter you're picking up and where you're picking it up from
- Organise litter picks with your family in your local area
- · Encourage your neighbours to think about their litter habits

Teachers & Staff:

- Why not sign your school up to be a local Terracycle point?
- · Ensure your schools has recycling bins and that they are being used effectively
- · Encourage local speakers to come in and talk about the benefits of recycling
- · Could you create a zero-waste day/week to highlight how much we throw away?

- Eco-Schools
- Eco-Schools Pinterest board
- Twinkl Litter
- Clean Up Britain
- Bin It Education
- CPRE Litter Campaign resources
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources







WASTE



At School:

- Make new things out of old things this is known as upcycling
- · Learn about reduce, reuse, recycle
- Fact or fiction recycling presentation
- · Run assemblies on recycling and the circular economy
- · Look at the life cycle of items and see which items are the greenest
- Create a mini composting garden in your school grounds
- · Organise a 'clothes swap' event to encourage people to give their clothes a second life
- Create posters and hang in the corridors to encourage people to think about where their waste is going

At home:

- Create a throwaway diary to record what you are throwing away and how much you are throwing away. Is there a way to reduce this? Can you reuse anything? Can you recycle anything?
- Put different coloured stickers on items that can be recycled to remind you when it comes to dispose of the items
- Repair your clothes if you can don't throw them away if they're still in wearable condition
- Use leftovers and fashion them into something new and tasty
- · Ensure you are storing your foods correctly to reduce wastage and foods going stale
- Try and go zero waste for a week and record how hard or easy it is
- · Encourage your family to buy in bulk to save on packaging

Teachers & Staff:

- Complete a waste audit for your school
- Ensure that your school is collecting food waste and recycling
- Organise a tour of your local recycling facility in the borough so students can see the journey of whether their recycling goes
- Encourage external speakers to come in and speak about waste interactive presentations really highlight and engage well
- · Ensure you are being transparent with students about the procedures your school follows

- Eco-Schools
- Eco-Schools Pinterest board
- Waste Buster
- A Life On Our Planet:Eliminate Waste with David Attenborough
- Transform our World Resources
- Join the Pod Resources
- Let's go Zero Resources

- Stop Waste
- Zero Waste Week resources
- Hounslow Council: Household Recycling
- British Council Waste resources
- Report dumped rubbish/fly-tipping
- British Council Waste resources





