Supporting secondary schools and education facilities

FREE education sessions about Net Zero, Energy, Climate Change and sustainability.

Northern Gas Networks

Northern Gas Networks (NGN) delivers gas to:

2.7 million customers

across the North through over

37,000km pipeline network.

We maintain and upgrade our network, respond to gas emergencies, and work to keep people safe. Alongside providing energy today, we're exploring more sustainable energy solutions to help build a greener future.



What we can offer your school

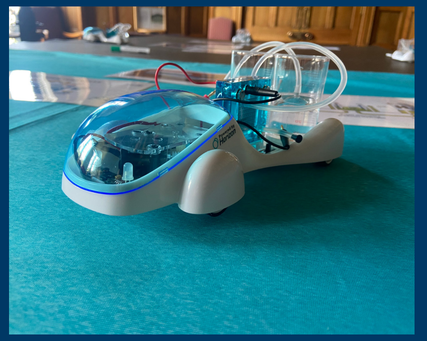
We know our young people care passionately about the environment and want to help them understand the effect of climate change.

We run fun, FREE learning sessions which are interactive and engaging and can be delivered through assemblies, lessons, presentations, or a full day of activities.

All our sessions have been developed with the current curriculum and exam board specifications in mind, to ensure that they are relatable to your own school objectives.



Bring careers and apprenticeships to life through tailored events that connect students with future opportunities.



Inspire the next generation through interactive workshops and assemblies on Net Zero, sustainability and climate action.



Deliver hands-on STEM experiences designed to engage classes, year groups and targeted student cohorts.

Meet the team

All our team are recognised STEM Learning Ambassadors, have undertaken Advanced Safeguarding training and have Enhanced DBS Certificates.

The team are super enthusiastic about delivering fun and engaging sessions about Net Zero and helping to spread awareness about the challenges we face, and possible solutions.



If you would like to find out more, please contact us at efeducation@northerngas.co.uk

Our sessions

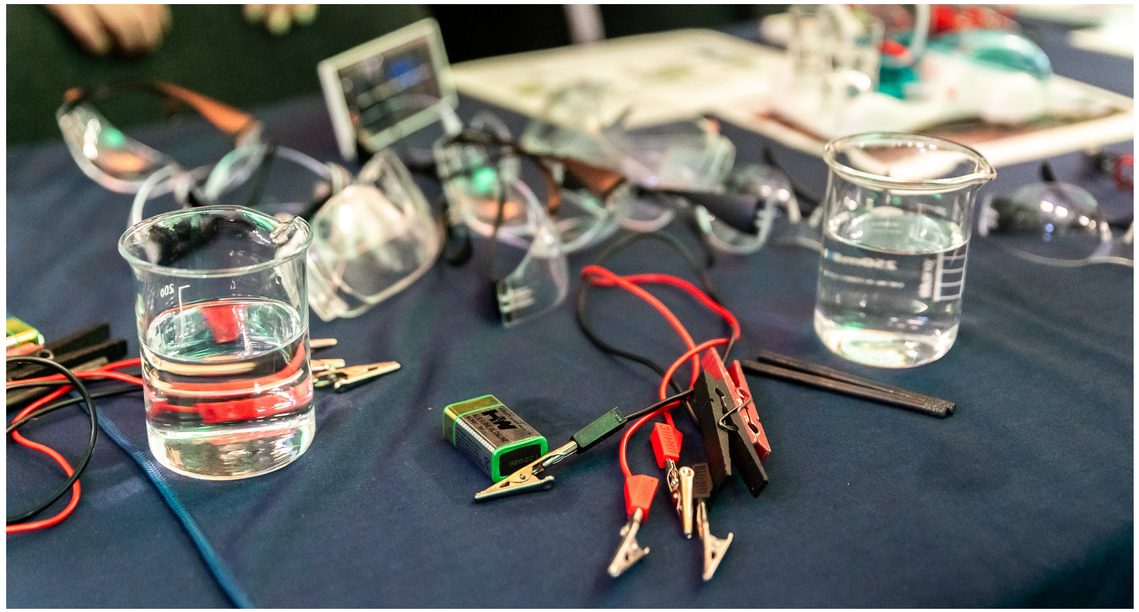
We have detailed our sessions on the following resource table, but we can work with you to develop a bespoke session to meet your needs, and the needs of your students. We can discuss the length of your session, the best format for your requirements and are happy to explain how our resources fit with your school curriculum or exam specifications.

Our sessions can be adapted for EYFS and SEND students, just let us know in your enquiry.

Resource name	Description
Energy Island	Explore Net Zero, climate change, greenhouse gases, and different energy sources. Students will design their own island and work towards achieving Net Zero energy production. This can also be delivered as a Dragons' Den-style challenge, encouraging students to think creatively about sustainable business practices, energy choices, waste reduction, supply chains and carbon offsetting.
Fuel Cells and Hydrogen cars	An interactive, hands-on session exploring how green hydrogen can be produced through electrolysis. Students will then use hydrogen-powered model cars to investigate how fuel cells work. The session also introduces Net Zero and explores the advantages and disadvantages of hydrogen fuel cell technology.
Insulation	An interactive session that explores how home insulation and energy efficiency can reduce energy use and carbon emissions, helping the UK move towards its Net Zero targets.
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Hydrogen Electrolysis Experiment	An experiment-based session that demonstrates how green hydrogen can be produced through electrolysis and explores its potential role in helping the UK achieve Net Zero.
Fossil Fuel vs Renewables	A practical session exploring Net Zero, climate change and energy choices. Through a simple experiment using candles and renewable resources, students investigate the differences between renewable and fossil fuels and why cleaner energy is important for a sustainable future.
Bond Energies	Students will investigate the science behind combustion and compare the energy released by different fuels. The session then explores how lowercarbon energy sources can help reduce emissions and support Net Zero ambitions.
Hydrogen Production and Distribution	An engaging, hands-on session introducing green hydrogen and how it can be produced through electrolysis. Students will use straws to build and test their own model gas network while exploring the role hydrogen could play in achieving Net Zero.
Escape Room	An escape room-style challenge where students work together to solve a series of puzzles and decode padlocks linked to Net Zero, climate change and future energy. The activity encourages problem-solving, teamwork and critical thinking while exploring key sustainability concepts in a fun and interactive way. **Please note: this session has limited availability.** **Contact us for upcoming dates and availability.**
Greenhouse Effect Experiment	An interactive, experiment-based session that demonstrates the impact carbon dioxide has on global warming. Through a simple practical activity, students will explore the greenhouse effect and understand how reducing emissions can support the UK's journey to Net Zero. Works best when there is sunshine, and equipment can be set up in the sun.

Biogas and Digestors	A hands on, practical session introducing biogas and its role in a Net Zero future. Students will explore how biogas is produced and used before setting up their own simple biogas experiment. As the process takes several days to develop, teachers and students can revisit the experiment later in the week to observe and discuss the results.
Designing a Hydrogen Infrastructure	A real-world design challenge where students plan a hydrogen infrastructure for a specific community or location. They will consider how hydrogen is produced, stored and distributed, while exploring factors such as energy demand, supply and infrastructure requirements.
Industry Cadets (5 hours commitment for delivery of sessions)	A five-hour programme of practical activities and team challenges that develops employability skills while giving students the opportunity to achieve an Industrial Cadets award. Sessions can be delivered as a full day or spread across multiple visits. **For more information, please speak to your NGN representative.**
Carbon Capture	An interactive session exploring carbon capture and its potential role in helping the UK achieve Net Zero. Students will learn how carbon dioxide can be captured, transported and safely stored, and why this technology is being considered as part of the transition to a lower-carbon future.
Carbon Cycle and Renewables	An engaging, game-based introduction to the carbon cycle that explores how energy production and the burning of fossil fuels increase carbon dioxide levels in the atmosphere. Students will investigate the greenhouse effect and discover why reducing emissions is essential for achieving Net Zero.
Carbon Footprint	Students will explore Net Zero and the greenhouse effect before calculating their own carbon footprint through a series of activities and questions. They will investigate how everyday choices can contribute to carbon emissions and identify practical ways to reduce their personal environmental impact and support a Net Zero future

Many of our sessions can be adapted and delivered to Post-16 learners, with content tailored to suit the interests, curriculum requirements and career aspirations of older students.



Beyond the classroom

Our resources go beyond the classroom, supporting Eco and Science Clubs, youth groups such as Cubs, Scouts, Brownies and Guides, Holiday Clubs, and After-School Clubs. We can also adapt our activities and materials to suit the needs of your group.

How to book:

1

Browse our sessions and identify topics that best suit your learners.

2

Contact us using the enquiry form, or email us to discuss booking options. It would be great if you included your school name, any sessions of interest and which term you would like us to attend.

Enquiry form:

3

A member of our team will contact you to discuss your requirements and tailor the session to your needs.

4

We'll confirm all arrangements and provide any infrormation needed before our visit.

Thank you

Whether you're planning a lesson, workshop, assembly or STEM event, get in touch at efeducation@northerngas.co.uk or scan the QR code to book your session

Northern Gas Networks

Enquire now: