

Supporting primary schools and education facilities

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



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

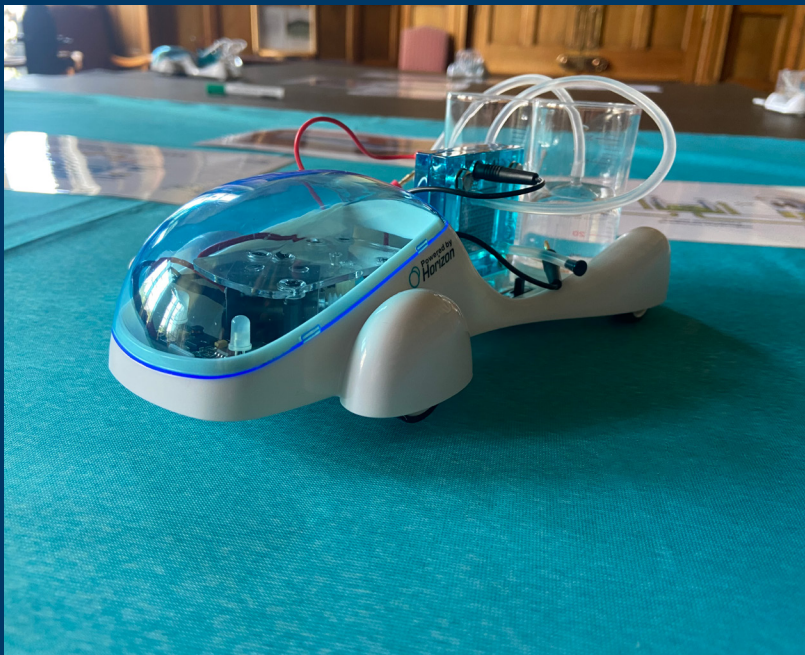
We know our young people care passionately about the environment and want to help them understand the effect of climate change.

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.
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.
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.

Insulation	An engaging, 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.
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.
Biogas and Digestors	An engaging, 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.
Pipe Leakage	A hands-on session that explores what natural gas is, why gas pipes can develop leaks, and the impact those leaks can have on safety, cost and the environment. Through real-world examples and practical leak detection activities, students will discover why methane is a powerful greenhouse gas and how reducing emissions can support the UK’s journey to Net Zero.
Fossil Fuels 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.
Hydrogen Production and Distribution	A 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.



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.
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.
Atmosphere and Climate Change	Students will explore the evolution of Earth’s atmosphere and investigate how changes in atmospheric gases have shaped our planet. The session examines the greenhouse effect, climate change and the importance of reaching Net Zero to create a more sustainable future.
Greenhouse Gas Superheroes	A creative, hands-on session exploring greenhouse gases, how they are formed, and their impact on climate change. Students design their own heroes and villains to bring the science of the greenhouse effect and Net Zero to life.
Net Zero Scales	A session designed for KS1 and lower KS2 learners, introducing the concepts of global warming, climate change and Net Zero. Through a practical balancing activity, students use weighted blocks representing different actions and energy choices to understand how emissions can be reduced and balanced. By working together to achieve ‘Net Zero’ on a set of scales, learners explore how everyday decisions can help create a more sustainable future.
KS1 Global Warming	A very basic introduction to global warming, climate change and Net Zero for KS1 learners. Using a simple ice-based experiment to represent melting polar ice caps, students will explore the impact of rising temperatures and discover how small actions can help protect our planet

Games and quizzes

These sessions can be delivered as standalone but work best delivered alongside other resources.

Resource name	Description
Net Zero Board Game	Basic board game to help the understanding of Net Zero. Usually done as part of another session.
Energy Trumps	Energy-based card game to introduce renewable energy.
Net Zero Quiz	A quiz that covers Net Zero, climate change, greenhouse effect and solving the problem. The quiz is designed to allow discussion and to cover key misconceptions, leading to new understanding, highlighting the importance of Net Zero.
Carbon Footprint Quiz	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.

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 information 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



Enquire now:

