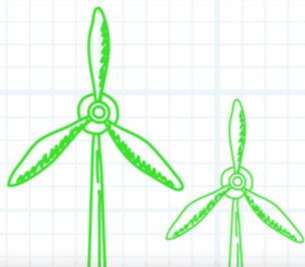


nationalgrid



PRINCIPAL PARTNER
UN CLIMATE
CHANGE
CONFERENCE
UK 2021
IN PARTNERSHIP WITH ITALY



Voices for a Green Future Resource Guide

Years 7–11/Ages 11–15



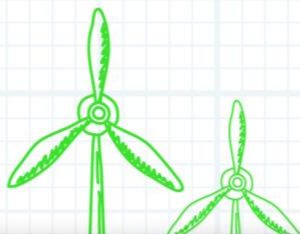
VOICES FOR A GREEN FUTURE

GO GREEN
COMPETITION



SAVE
OUR
PLANET





If you were in charge of the country...

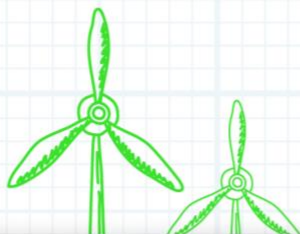


It's crucial we all shift towards a more sustainable way of life, including using clean and green energy to both power and preserve our world. The transition to clean energy is critical to help us achieve the important climate change goal of reaching net zero by 2050.

This is because energy is vital to every aspect of our lives. We use it to light and heat our homes, to power our computers and phones, to keep us connected with work and loved ones. We rely on it to keep us safe, our hospitals running, our schools open and our water flowing.

National Grid is focused on finding ways to deliver cleaner, greener energy and we've made our own commitments to the environment ahead of COP26.

Now we want to hear about your student's ideas for looking after the planet.



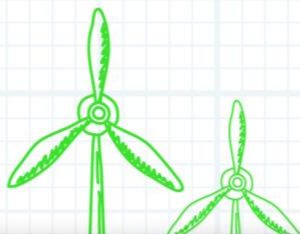
Why having your voice heard matters



Every voice matters in the fight against climate change. But it is our young people's futures that will be most affected by the decisions and actions we all take today.

Voices for a Green Future is an opportunity for young people to have their say at COP26 – the UN Climate Change Conference, taking place in Glasgow in November 2021. At the event leaders, scientists and experts from around the world will meet to agree on the action needed to fight climate change.

The Voices for a Green Future competition is an opportunity for school students across the UK to have their hopes and ambitions for a greener, more sustainable future heard at the United Nations COP26 climate conference this November.



How the competition works



We are asking secondary school children in years 7-11, ages 11-15, to submit up to a 200-word entry answering our question:

“If you were in charge of the country, what would you do to help look after the planet?”

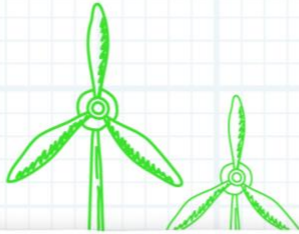
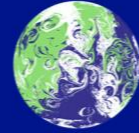
Four lucky winners will be invited to create a 2-5 minute speech, receiving a VIP video shoot with a professional video team to turn their speech ideas into a film that will be premiered at COP26 in front of world leaders.

The winners will also secure a £5,000 grant for their school to put towards initiatives focused on climate change STEM subjects and £150 worth of National Book Tokens and/or science related toys for themselves.

Winners will be selected based on their originality, creativity, inspiration, power and passion by a panel of VIP judges.

The competition closing date is 17 August.

Got a question? You may find the answer on our [Frequently Asked Questions](#) section of the competition website.



What this pack includes



We want to help educate and inspire young minds on the issue of climate change. They are our future leaders, engineers and problem solvers who will lead the charge for a more sustainable way of life.

To help, we have produced materials designed to spark conversations and get young people actively involved through a broad range of information relating to climate change, the COP26 conference in Glasgow in November, the energy system, as well as information on the competition.

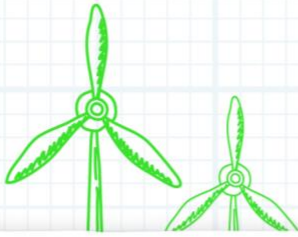
You can download and tailor the content to meet your specific needs. Just remove what you don't need and add what you'd like to focus on using the templates and tools we have provided within each document.

Please download either the PowerPoint presentation document or the PDF version of the presentation to your desktop relevant to your school (primary or secondary).

The PowerPoint presentation document has embedded animation within the pages, when you are ready to share with your class, please launch your presentation using the slide show function to see the pages come to life for your class to enjoy, using a mouse click you can activate the information.

There are extra pages at the back of the PowerPoint document for you to use in your presentation if you would like to add anything. Don't forget to delete these pages before you present.

Please note that the PowerPoint presentation document is too large to email, if you need to use a smaller file, please use the PDF version supplied.



Part 1: Introducing the competition/National Grid

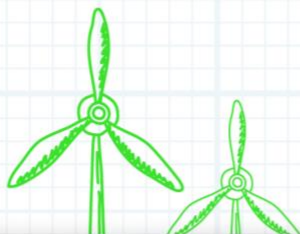


Why include this section: we want to make sure students are clear on why we're having a discussion today.

Share our ['What is National Grid'](#) video, to give students an overview of the company.

At the end of the video, put the competition question on the screen – ask them to start thinking about their answers, and we will come back to their thoughts later.

Use slides 5-8 to put National Grid into an everyday context for students – where might they have encountered National Grid, but not realised?



National Grid: Useful information



Ever wondered...



National Grid sits at the heart of the energy industry, keeping the lights on and the gas flowing, and connecting millions of people across the nation safely, reliably and efficiently to the energy they use every day.

Did you know?

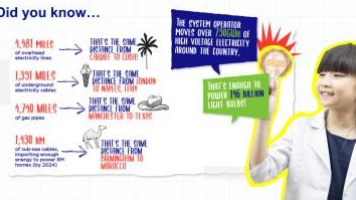


The National Grid is a network of high-voltage power lines, gas pipelines and storage facilities that allow the distribution of electricity and gas.

The grid ensures that all areas of Great Britain always have enough power.

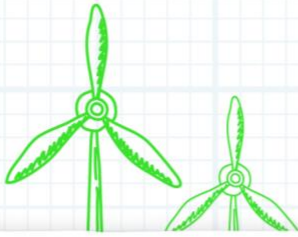
They are also looking at lots of different ways to help us get to a clean energy future, with things like interconnectors - cables that run under the sea and connect the electricity systems of neighbouring countries. They allow us to trade excess power, such as renewable energy created by the sun, wind and water, between different countries.

Did you know...



National Grid in Numbers:

- 4,481 miles (7,212 kilometres) of overhead electricity lines
- 1,391 miles (2,239 kilometres) of underground electricity cables
- 4,740 miles (7,630 kilometres) of gas pipes
- 1,430 km of sub-sea cables, importing enough energy to power 8M homes (by 2024)
- The system operator moves over 730 Gigawatt Hours – a unit of high-voltage electricity - around the country. That's enough to power 146 billion light bulbs!





Part 2: Why are we talking about energy?




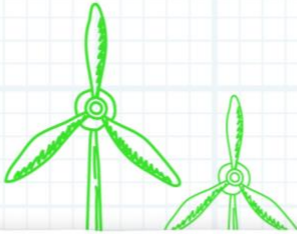
Why this section: Puts the conversation around climate change into context that is easy to understand.

In this section, walk through the key components of the climate change discussion.

- 1) Where do we get our energy from – ask students to share what they know about each of the six sources, which sources are ‘cleaner’ than others
- 2) What are greenhouse gases – where do they come from, what are some of the sources that you might not have expected
- 3) What is climate change – how a rise in greenhouse gases impacts what we see, but that it’s more than just global warming

<p>Where does the energy we use come from?</p> 	<p>So let’s think about where we get our energy from. How do we power our homes? What heats our water? What makes the lights turn on?</p> <p>What can you tell me about the six energy sources listed here?</p> <p>Are any of these sources more environmentally friendly than others? If so, why?</p>
<p>What are greenhouse gases?</p>  <p>Greenhouse gases are all around us</p> <ul style="list-style-type: none"> – Lots of things we do every day create them. – They trap heat in our atmosphere, like a greenhouse. – They stop our planet getting too cold, so we need a certain amount of them. – But too much of them will make our planet get too warm. 	<p>What do you all know about greenhouse gases?</p> <p>Greenhouse gases are important in making sure planet earth doesn’t get too cold for us to live comfortably. These gases include carbon dioxide, methane, nitrous oxide, and others, and they trap heat in our atmosphere, like a greenhouse.</p> <p>There are some obvious contributors to greenhouse gas emissions.</p>

	<p>When we drive in a car, most cars burn fuel which releases carbon dioxide into the air. When we fly in an airplane, the plane uses fuel that also releases carbon dioxide. And when we turn on our central heating, that too can release carbon dioxide.</p> <p>But what about other things in daily life?</p> <p>Think of all the objects and appliances and items of clothing in the world - making things often requires us to use natural resources, like water, wood from trees, minerals from the ground and oil and gas. To make these items, companies also often use energy which releases more greenhouse gases into the atmosphere.</p> <p>Unfortunately, many of the activities in our daily lives release too many greenhouse gases, and now there is a build-up of these gases in our atmosphere and our planet is becoming too warm.</p>
<p>What is climate change?</p>  <p>Climate change is in the news a lot, because it's happening right now. You'll have seen how it affects penguins, polar bears and melting ice caps. But it's about much more than that.</p>	<p>The word climate means the long-term weather patterns in a particular area.</p> <p>Because our planet is getting warmer, we're seeing lots of changes to all different types of weather.</p> <p>In the past 30 years, we've seen big increases in the temperature of our planet, leading to extreme changes that the natural environment can't cope with. Climate change affects all of us!</p> <p>Encourage students to share where they have seen the impact of climate change, either in their own lives or through news or social media.</p>



True or false?



ACTIVITY: Encourage students to work through some of the common myths and misconceptions about climate change.

Start by asking students to share some of the headlines they have seen recently in the media about climate change – do they think they are true or false?

Source: <https://www.nationalgrid.com/stories/journey-to-net-zero-stories/6-myths-about-climate-change-busted>

'The climate has always been changing, this is no different'

Yes, the climate has changed a lot, but it is the dramatic and unprecedented scale of [climate change](#). The rate of temperature rise is at least 10 times faster than that of the last mass extinction about 56 million years ago

'It's freezing outside – so much for global warming!'

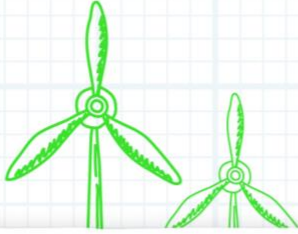
Weather and climate are not the same. Climate is the average pattern of weather for a particular region and time period. But weather can change minute-to-minute, hour-to-hour, day-to-day and season-to-season in a specific location.

'Carbon dioxide can't be responsible for climate change – plants, crops and trees need CO₂ to grow'

Plants do need carbon dioxide (CO₂), that's true. But there's a limit to the amount they can absorb and the remainder is pumped out into the atmosphere. Greenhouse gases trap heat from the sun, warming the earth's surface and the air above it.

'There's no way humans are responsible for climate change'

Climate change is happening to an extent that cannot be explained by natural factors alone. The worldwide scientific community agrees that the global warming we are experiencing is man-made.



True or false? continued

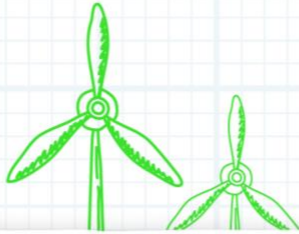


'It's solar changes that are causing the earth to warm, not us'

The sun powers life on earth, keeping the planet warm enough for us all to survive. The sun also influences earth's climate; subtle changes in earth's orbit around the sun were responsible for past ice ages. But the global warming we've seen over the last few decades is too rapid and dramatic to be linked to changes in earth's orbit, and too large to be caused by solar activity.

'There's no point doing anything – it's all too late'

This is a critical time to take action on climate change. And it can be done. We already have the technology and systems to achieve net zero carbon emissions by 2050. We can halt climate change and create a sustainable future for humans and nature.



Part 3: what action are we taking?



Why this section: Reframe the climate change discussion positively, bringing students back to the actions they can take.

In this section, start to get students to think about the actions, no matter how small, they can take to tackle climate change. Start big – look at what world leaders are doing – before bringing it down into some simple explanations about why we're taking these actions

- Use slides 22-25 to give students an idea of where we're starting from, and what actions the governments around the world have committed to
- At this point, you may want to mention COP15, so that students start to make the connection about the event and why it's so important
- Finish by explaining that the aim is to get to net zero

What's
happening
around the
world?






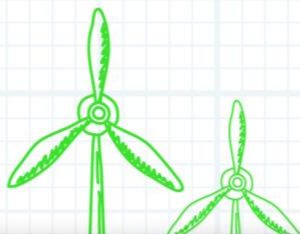
2019 was the [second warmest year on record](#) and the end of the warmest decade (2010- 2019) ever recorded.

Carbon dioxide (CO₂) levels and other [greenhouse gases in the atmosphere](#) rose to new records in 2019.

Climate change is affecting every country on every continent. It is disrupting national economies and affecting lives. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme.

Although greenhouse gas emissions are projected to drop about 6 per cent in 2020 due to travel bans and economic slowdowns resulting from the COVID-19 pandemic, this improvement is only temporary. [Climate change is not on pause](#). Once the global economy begins to recover from the pandemic, emissions are expected to return to higher levels.

<p>The whole world needs to act fast to tackle climate change</p>  <p>People everywhere are starting to take steps to make sure we leave the planet in better shape.</p> <p>World leaders are also making commitments to control the rise in global temperatures.</p>	<p>Saving lives and livelihoods requires urgent action to address both the pandemic and the climate emergency.</p> <p>The Paris Agreement, adopted at COP15 in 2015, was where world leaders committed to strengthening the global response to the threat of climate change by keeping a global temperature rise this century to no more than 1.5 degrees.</p>
<p>Why 1.5°C?</p> 	<p>You will see this figure a lot. This is what world leaders committed to in 2015 – to make sure that temperatures around the world do not rise more than 1.5 degrees.</p> <p>Why is this important? Well, it's actually half a degree lower than was originally talked about. And that half a degree will make all the difference.</p> <p>But to be able to meet that target, and make sure that temperatures don't rise any higher – we need to get to something called 'net zero'.</p>
<p>Getting to net zero</p> <p>Net zero is when the amount of greenhouse gases a company adds to the atmosphere is no more than the amount it takes away.</p>  <p>Think about it like this... Climate change is like a bath filling up with water – we must not let it overflow. Slowing down the water helps, but it will still splash over the sides. The only way to stop it is to turn off the tap, and pull out the plug.</p>	<p>We've all heard the term net zero, but what exactly does it mean? Put simply, net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away. But how can we achieve this and why does it matter?</p> <p>Think about it like a bath – turn on the taps and you add more water, pull out the plug and water flows out. The amount of water in the bath depends on both the input from the taps and the output via the plughole. To keep the amount of water in the bath at the same level, you need to make sure that the input and output are balanced.</p> <p>Reaching net zero applies the same principle, requiring us to balance the amount of greenhouse gases we emit with the amount we remove. When what we add is no more than what we take away we reach net zero.</p> <p>And even better if we can 'pull the plug' and take greenhouse gases out of the atmosphere!</p>



What are some of the ways people can help us get to net zero?



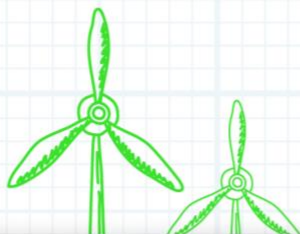
ACTIVITY: start a discussion with students to create an understanding about what net zero is and why it's important.

There are a few ways to do this:

- Use the example provided in the pack
- Share one of our videos on net zero included in the resources section of this guide

ACTIVITY: What are some of the ways people can help us get to net zero and 'turn off the tap'?

- Use the [WWF Carbon Footprint calculator](#) with a handful of students to get them to work out how much greenhouse gas they give off on a day to day basis.
- Based on their responses, ask them to think about what they might do differently to reduce this.
- You can use slide 28 to give them some practical examples to take away from the lesson and start doing right away!



Part 4: What is COP26?



Why this section: Explains why the COP event is so important and why getting involved can make a real difference

In this section, use the Twinkl COP26 resources [available here](#) to walk through the main details about COP26

- What it is and who it's organised by
- What will happen at the event
- Why it's important that it is happening how
- Who's going to be there
- How pupils can get involved

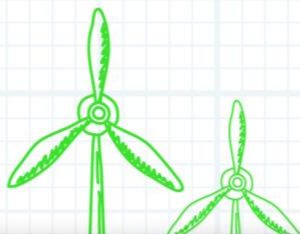
The slides included in the pack will give you the information you need; below are some National Grid definitions that you might find useful:

What is COP26?

COP26 is the next annual UN climate change conference. COP stands for Conference of the Parties, and the summit will be attended by the countries that signed the United Nations Framework Convention on Climate Change (UNFCCC) – a treaty that came into force in 1994.

United Nations climate change conferences are among the largest international meetings in the world. The negotiations between governments are complex and involve officials from every country in the world as well as representatives from civil society and the global news media.

This is the 26th COP summit and will be hosted in partnership between the UK and Italy. The conference will be held in Glasgow from 1-12 November 2021, a year later than planned due to delays caused by the COVID pandemic.



Part 4 continued



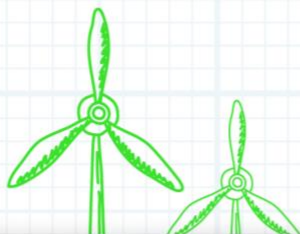
What happens at a COP?

Activity at a COP takes place in two different zones – the Blue Zone and the Green Zone.

The Blue Zone is for people registered with the UN body tasked with coordinating the global response to the threat of climate change – the United Nations Framework Convention on Climate Change (UNFCCC). In the Blue Zone you might be part of a national delegation, work for the United Nations and related organisations & agencies or be a member of the media or not-for-profit observer organisation.

In the Blue Zone, delegates from countries meet for both formal negotiations and informal consultations. They may also take part in meetings with other delegations to clarify their position and interests with the aim of reaching agreement or overcoming a negotiating deadlock. The UNFCCC will also host a range of events, including technical briefings, to support the negotiations process.

The Green Zone is for the general public. There will be a wide range of events, including workshops, art exhibitions and installations, as well as presentations, demonstrations of technology and musical performances for everyone to attend.



Part 5: Voices for a Green Future – activities



Why this section: encourage students to take part and have their voices heard

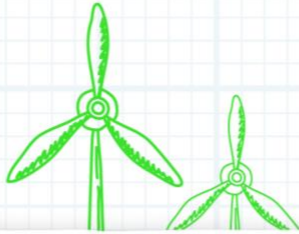
Use the slides to explain the competition a bit more – come back to the question we asked them at the start of the session and get ready to start sharing their answers.

At the end of your activity, recap on the competition with the details provided. Show students the posters and remind them of the competition deadline (17 August)

ACTIVITY: explaining your idea to help the planet – questions to start a discussion

To help students get started with their competition entry, use some of the example questions below to get them to think about their hopes and ideas to help look after the planet.

- How will people in a future greener world get to school? What transport will we use that doesn't pollute the air?
- How would you use more renewable energy such as from the sun, wind or water? Where could we get this from?
- How could you save more energy at home or at school?
- What rules would you make to fight climate change and how would you ensure they are fair?



Part 5 continued



ACTIVITY: getting to net zero

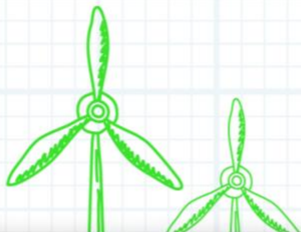
The competition will not only get children speaking about climate change and thinking more about where our energy comes from but is a great way to practice public speaking and active citizenship.

Building on from the discussion, ask students to brainstorm a list of energy sources, then write their ideas on a whiteboard.

Draw a 2-column chart on the board with headers 'Renewable Resources' and 'Non-Renewable Resources'. As a class, sort the energy sources they brainstormed into the correct columns in the chart. Answers should include:

- Renewable: solar, wind, tidal, hydro-electric, biomass and geo-thermal
- Non-renewable: coal and coal products, oil, natural gas, and nuclear power

Move students into pairs or small groups, nominate one person as the climate 'sceptic' and spend two minutes trying to get someone to switch to a greener source of energy based on what they have heard today.



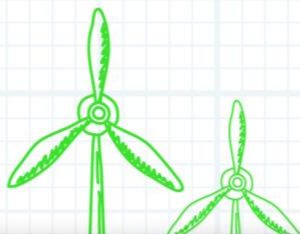
Part 5 continued



ACTIVITY: What will your 200 words say?

To help with entries, encourage them to think about their responses with our judging criteria in mind. These are the things our judges will be looking for!

- **Originality of the idea** – be as descriptive as possible on your hopes for a greener more sustainable world. Do not copy another's work or mention brand names, characters, celebrities or other high-profile individuals, political parties or political figures, companies or third parties. All work must be your own.
- **Creativity and passion** – think differently and explain your idea in your own words to inspire world leaders to take note and listen.
- **Inspire a reaction** – inspire a reaction from the reader, be it emotional, a change in behaviour or a change in their thinking.
- **Spelling and Grammar** – make sure you check your work for spelling and grammar mistakes.



Competition resources

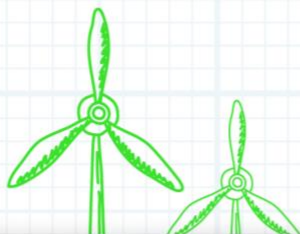


Climate change affects us all but none more so than our children. After all, they will inherit the world and the problems we create today. So, to help spread the word about the competition and encourage young people to add their voice to the conversation on climate change, we have created a range of downloadable materials which can be shared far and wide.

We have created a useful leaflet providing a summary for teachers and staff, eye-catching posters to display in both primary and secondary schools to encourage students to enter, and additional imagery that you can share on online, on social media or wherever you'd like.

Click on the images below to download the assets.

<p>Information leaflet – this provides a useful summary for teachers and staff.</p>	<p>Posters – to display in school to encourage students to enter.</p>	<p>Competition imagery – to share on social media or other communication channels.</p>



Additional National Grid resources



Ever wondered what exactly is net zero? Or how solar power works? Our website hosts a range of content that answers all your questions to demystify the world of energy.

Find out more about how energy works, from its history to the innovations and technologies that could help us build a cleaner, greener energy system for the future in our [Energy Explained](#) series.

Some examples include:

[The history of energy](#)

What were the earliest sources of energy? Who discovered electricity and when? In some ways, we've come full circle when it comes to energy. Ironically, the first sources of energy were the **sun** and **wind**, and here we are again looking to those; albeit in more technologically advanced ways. Here we look at the history of energy and the key discoveries and inventions along the way to where we are now.

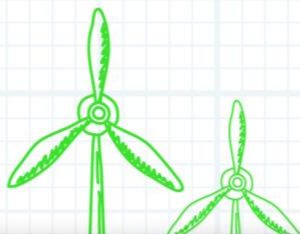
[What is net zero?](#)

We've all heard the term net zero, but what exactly does it mean?

[What are greenhouse gases?](#)

[What is green energy?](#)

And what's the difference between green energy, renewable energy and clean energy? Often these terms are used interchangeably, but there are some differences. Here's our simple guide.



Other activities to explore



The official [COP26 resources page](#) has a range of information and activities to continue your conversation. Below are just a few of our favourites from their selection:

Blue Peter Green Badge

Become a Blue Peter Climate Hero by helping the environment and earning a Green badge. Upload your photos and artwork to show how much you care about nature, the environment and your planet. [Find out how to apply for your Green Badge!](#)

Talking to young people about the climate

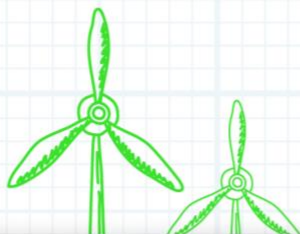
Find thoughtful guidance on how to talk to young people about climate change on [National Geographic](#), [World's Largest Lesson](#), or [Thought Box](#).

Make your whole school climate ready

- Find out more on how to become an [Eco-School](#) or [Climate-Ready](#)
- Learn more about how your school can generate its own energy with the [Schools Energy Co-operative](#) or [Solar For Schools](#)
- Why not build a living wall? Check out the [ANS GLOBAL](#) website

Resources and short projects for Upper Primary and Secondary Schools

- Use [World's Largest Lesson](#) resources to introduce climate change to students
- Access climate guides and classroom resources on [Our Planet](#)
- Provide inspiring activities for your classroom with the [Do your bit](#) digital challenge
- Use [WWF UK free curriculum-linked resources](#) designed to help students explore environmental issues in an engaging and motivating way



Further educational resources



COP26 – Together for our Planet

Created by the organisers of COP26, this schools pack features a wealth of materials on the COP26 Together For our Planet website in the [Schools Pack](#) section.

Explore the content to discover ideas and tools to inspire, including activities for schools, creative tools and a range of other resources.

Giant Ant - climate animations (featuring Kristen Bell)

This short, animated series provides you with engaging content to bring to life the key points for any climate-related conversation. Use these videos to start a session and frame a discussion.

- [Why is the world warming up?](#)
- [What is net zero?](#)
- [Why is 1.5 degrees such a big deal?](#)
- [Where does all the carbon we release go?](#)
- [Why act now?](#)

TEDEd

TED's youth and education initiative features a whole host of engaging and thought-provoking video content to spark debate and discussion within a lesson environment.

- [Plan for zero series](#) – a seven-part video series based on Bill Gates' new book 'how to avoid a climate disaster'; includes animations such as:
 - [The myth of the boiling frog](#) (on the challenges of net-zero)
 - [The world's biggest battery looks nothing like a battery](#)
 - [How much electricity does it take to power the world](#)
- [Earth School series](#) – launched in partnership with UNEP, which features some of TEDEd's original climate and environment content.