christian aid

Hello future!

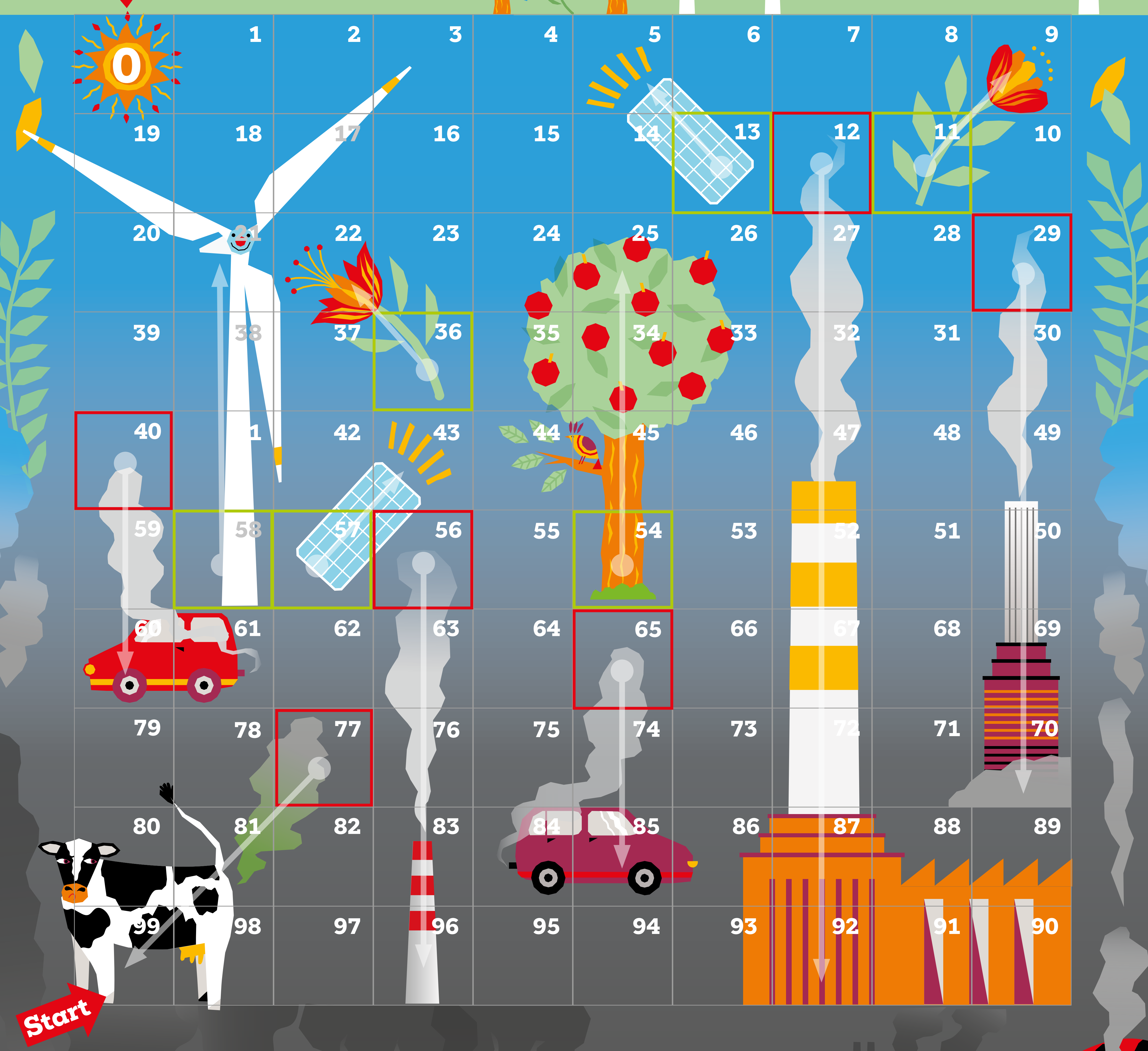
The solutions to climate change already exist.

People all over the world are working hard to come up with new, clean ways to produce energy.

Humans used to make energy by burning polluting fossil fuels, like petrol and diesel. But if you take a look around, you will be able to spot solar panels, electric cars and maybe even some wind turbines. All of these things are exciting new ways to run our world on clean energy. Lots of people are reducing the amount of meat they eat too.

The race is on to embrace all of this lovely new technology so that humans can start living in harmony with our beautiful world and stop spoiling it. Goodbye greenhouse gases!

You got to zero? You're my hero! The goal is for our world to get down to zero greenhouse gas emissions.



What's wrong with fumes?

Climate change is caused by greenhouse gases. Imagine all the factories, cars, aeroplanes, ships and cows in the world. Now imagine all those things pumping out gas into the air!

That gas collects in the Earth's atmosphere and makes it thicker, so that it acts like a blanket around our world, trapping in the heat of the sun and making everything warmer.

This is a problem because it interferes with normal weather patterns and makes extreme weather, like heatwaves, flooding and droughts more likely.

We all depend on the weather for the food that we eat and the wonderful natural environment that we enjoy, so when weather patterns change, it's a real problem.

Farewell fumes

Fume Free Futures board game

Object of the game

This game is a twist on the classic game of Snakes and Ladders. The order of the board is reversed – so the goal is to get to 0! The fumes take on the role of the snakes, and the solar panels, wind turbines and trees take on the role of the ladders. Descend from the top of a fume to the bottom, and climb up the solar panels, turbines and trees.

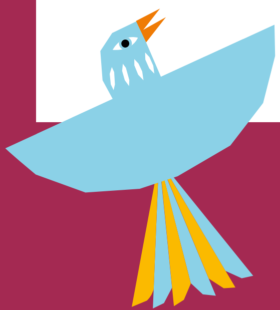
To play the game you will need:

- dice
- a counter for each player
- the Fume Free Futures board
- the Fume Free Futures cards

The game lasts approximately 10 to 15 minutes and is suitable for two to six players ages seven or over.

How to play

1. All players put their counters on the start line, by the number 99.
2. Each player takes a turn to roll the dice. The person who rolls the highest number goes first, followed by the person their left. The first player throws the dice and moves forward the correct number of squares.
3. When a player lands on a square that is the bottom of a solar panel, turbine or tree, then another player should take a green card and read out the question. If the player answers it right, they can move up to the highest part of that picture. If they give a wrong answer, they can stay where they are.
4. When a player lands on the top of a fume, they should pick up a red card. If they answer correctly, they can stay where they are. If their answer is wrong, they must go down the fume.
5. The winner is the first person to get to number 0.



The aim of the game is to get to zero, because we want the world to get to zero pollution!

What's it all about?

The climate is changing as a result of pollution. It is thought that floods, droughts and storms are happening more often, partly as a result of climate change. Across the world, people are busy finding ways to adapt to the changing weather and to reduce carbon emissions, which make climate change worse.

We all have a role to play in cutting carbon emissions. It's something that all of us can do for the planet. On the next page there are a few topics for you to find out facts about, before sharing your learning or ideas with the rest of the class. You might prefer to work in pairs or small groups with each person investigating a different question.

These topics range from energy use, transport and waste disposal to our buying habits. Everything that is transported, heated or produced requires energy and resources. By looking into how we can make changes to these things, to make them require less energy and fewer resources, means we are being less wasteful of the world's natural resources and reducing $C0_2$ emissions at the same time.

By letting your class and others know about your research and possible actions for change, you will be helping more people to spread the message!

Investigation time

Below are headings for topics that you can investigate. Choose something that interests you and you'd like to find out more about. The questions are here as a guide only. Use them to start your investigating, but you don't have to go through them all if you find some other useful information to gather.

Prepare a short presentation on your findings to share with the rest of the class. It is useful to include some graphs or numbers to present facts you've learnt. You should also suggest changes based on what you have read, eg, changes to your own habits, the school or the community. There may be an opportunity for you to speak to someone in your school or community afterwards to share your recommendations.

Food waste

How do people dispose of their organic household waste? What are the benefits of composting? What is the percentage of people in your area, or local authorities in your region using food waste bins? How much food is wasted every year?

Transport

How good and reliable is public transport in your area? How many cycle paths are there? Would someone be able to live without a car in your village/town/city? What solutions could you give to make public transport available to everyone? Walking is beneficial for our bodies and the environment. Do you walk on short journeys? Why or why not?

Energy supply

How much energy and money are wasted every year by people leaving electrical appliances on stand-by in their homes? What are the most expensive items to run in a home? How many people have smart meters? What are the plans by energy companies to be more sustainable? What is the percentage of renewable energy out of total energy in your country?

Disposable society

Have you heard of 'fast-fashion?' Are there companies that promote fairness and sustainability in the fashion industry? What are ways of re-using or recycling clothes? How do companies try to make sure that people buy new devices often? What happens to the old devices? What do you think individuals and companies could do differently so that fewer of the world's resources are wasted?

Food mileage

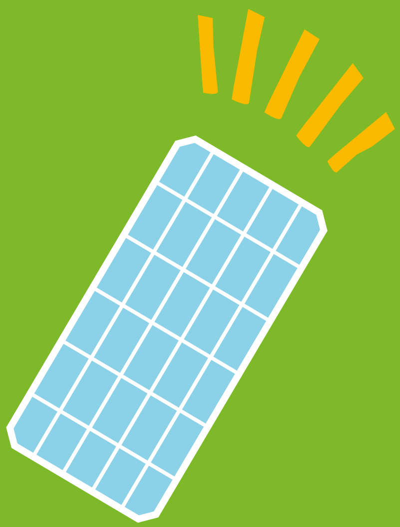
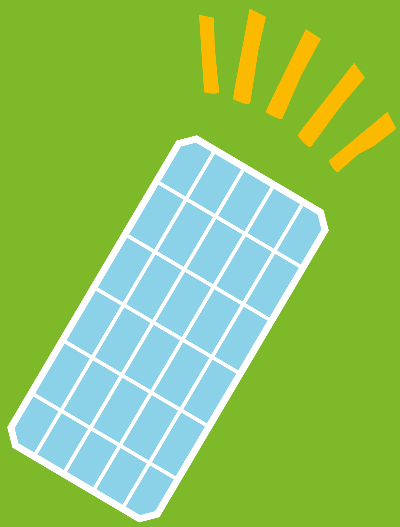
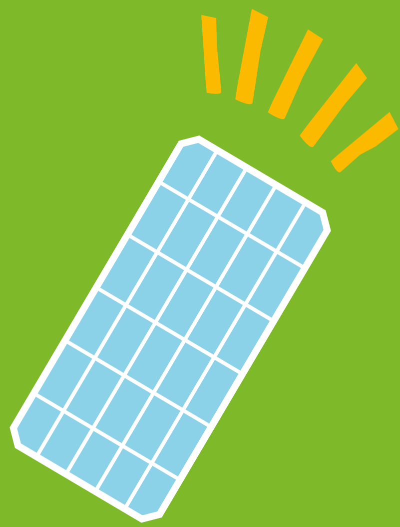
How much of the food eaten in your country is produced in your country? What is the total CO_2 emission for food being taken between countries every year? Are there health benefits from eating local produce?

Recycling

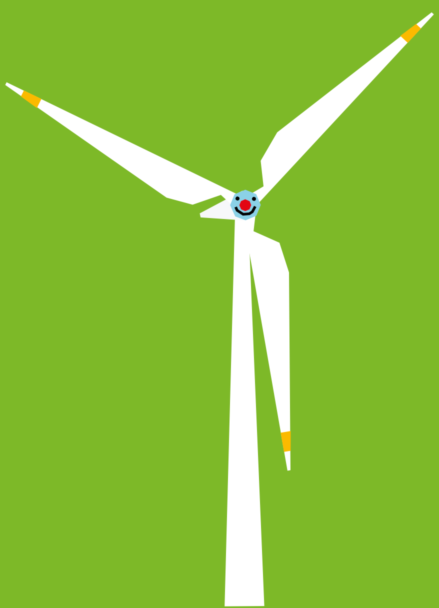
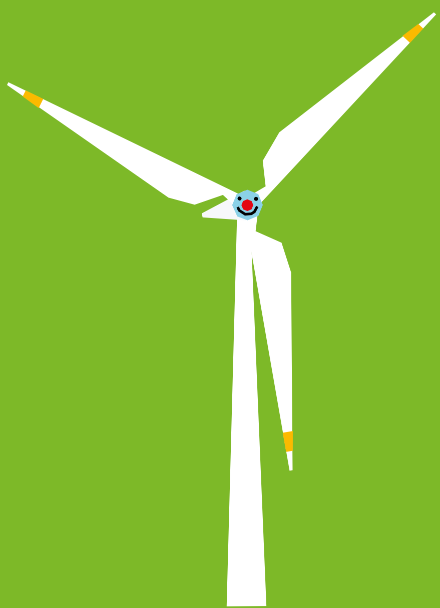
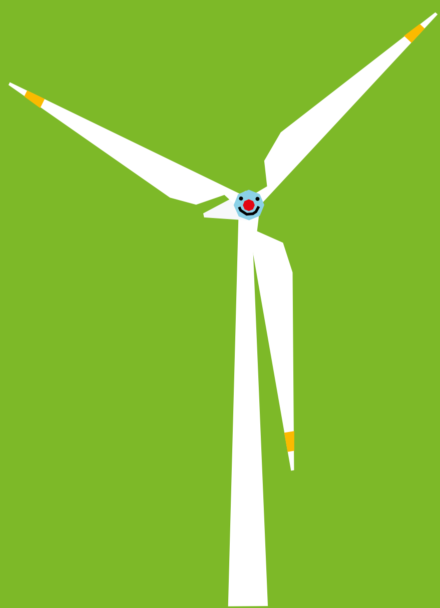
What are the problems of waste dump areas? What is the percentage of waste recycling in your country? How many more things could be recycled? What else do you think should be recycled in your county/country?

A word of caution:

We are all on a journey to make the world better by wasting less and decreasing pollution. But it's important to remember that everyone comes from a different starting place. We don't want to make people feel bad or for children to feel anxious or responsible for the damage to the climate. We want to share information and suggest good ideas in a kind way and provide solutions. It is important to show respect and care for people while showing respect and care for the planet we live on!











Fume Free

Futures

christian aid

Includes Fume Free Futures climate change board game

Plus: Teaching materials to help inspire your pupils to make their voices heard on the most pressing issue of our time: climate change

Teaching ideas

Below are some creative ideas for teaching about climate change across a range of subject areas.

Geography

Focus on pollution

Ask pupils to find the following eight countries on a world map: Bangladesh, Bolivia, China, Ethiopia, India, Ireland or UK,* Philippines and USA.

Split the class into eight groups, assigning one group per country. Invite each group to see what they can learn about the country they've been assigned, using books or the internet (this task could also be done as homework with parental supervision). Direct them to find out some basic facts about the country, eg, what the weather is like, what the natural geography is like, whether it is a high income or low income country, what sort of jobs people do, what things the country produces and exports (sells abroad), what sorts of food people eat there and what homes are like.

Invite each group to feed back on their learnings to the rest of the class.

* This resource is available in the UK and Ireland – you can choose whichever country is more relevant to your context.

Write the eight country names on signs (one country per sign), and ask eight pupils to hold up one of the signs in the front of the room. Ask the rest of the class to arrange the pupils with signs/countries according to which countries they think have the biggest carbon emissions per person (you can explain this as 'in which countries do people cause the most pollution,' but please note that this is a different question from 'which is the most polluting country,' because each country has a different population). They can arrange the sign holders across the room from 'most' to 'least'. Go through the list below and tell them if they got it right:

Average carbon emissions (in tonnes) per person, per year:

USA – 14.3

China – 8.4

United Kingdom/ Ireland – 4.4 / 6.6

India – 2.1

Bolivia – 1.9

Philippines – 1.3

Bangladesh – 0.7

Ethiopia – 0.1

Find different ways to represent the figures above, (eg, bar graph, pie chart).

Maths and History

Focus on changing levels of pollution

Share the table below, which shows the average carbon emissions per person (in tonnes) for different countries over time.

Country	1960	2009	2014	2023
USA	16	17	16.5	14.3
China	1	6	7.5	8.4
Ireland	4	8.9	7.3	6.6
United Kingdom	11	7.6	6.5	4.4
India	0.3	1.5	1.7	2.1
Bolivia	0.3	1.5	2	1.9
Philippines	0.3	0.8	1	1.3
Bangladesh	0	0.3	0.5	0.7
Ethiopia	0	Less than 0.1	0.1	0.1

Data from **ourworldindata.org**; figures have been rounded to one decimal point.

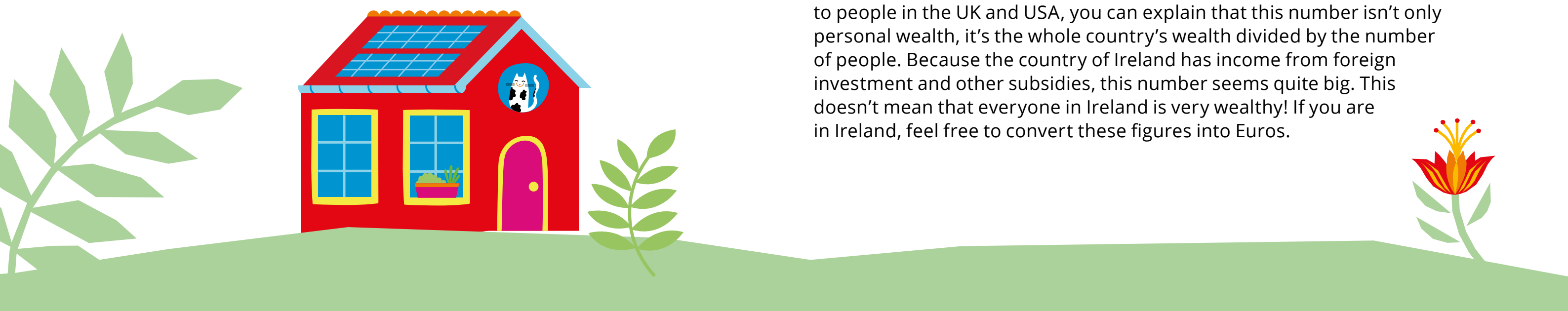
Ask pupils to plot these numbers on a line graph. What observations can they make? In which three countries are people most polluting and in which are they the least? Look at the lines in the graph. In which countries are people becoming less polluting over time? In which countries are they becoming more polluting over time? Observe that the countries where people are becoming less polluting are still amongst the most polluting overall.

Focus on changing levels of pollution

Share the table below, which lists income per person for each of these countries. (Note: we have translated GDP as 'income' to make it understandable for this age group).

Country	per year
Bangladesh	£1,996
Bolivia	£2,922
China	£9,957
Ethiopia	£1,021
India	£1,961
Ireland	£81,849**
Philippines	£2,941
United Kingdom	£38,576
USA	£64,491

**If children query why people in Ireland are relatively rich compared to people in the UK and USA, you can explain that this number isn't only personal wealth, it's the whole country's wealth divided by the number of people. Because the country of Ireland has income from foreign investment and other subsidies, this number seems quite big. This doesn't mean that everyone in Ireland is very wealthy! If you are in Ireland, feel free to convert these figures into Euros.



Ask pupils to create a new table, with the countries ordered from wealthiest to least wealthy.

Then, ask them to look at their graphs on pollution. What overall observations can be made?

Explain: The high and middle income countries are the most polluting. This is because they have 'industrialised' – they have money-making industries that create pollution from factories and transport. The people in these countries have more money and lead more polluting lifestyles; they are more likely to fly, to eat diets rich in meat and to have heated homes and cars.

People in the low income countries tend to be less polluting. This is because many people in those countries still live in subsistence ways, (eg, they might be small-scale farmers who farm what they eat) and they are much less likely to fly and drive and have homes that use lots of heat and electricity.

It is also interesting to note that the carbon emissions for the UK and USA are now dropping while the ones for other countries are rising. That is because these countries have started to invest in clean energy, which is good news! Explain that countries that are currently working towards developing or growing their economies, or industrialising, tend to pollute more as they do it, but that once they have reached a certain stage of development, their carbon emissions start to drop again. Historically, economic development has been very polluting. This means that the highest income countries in the world (including ours) have been most responsible for causing climate change.

Of course, it is good for countries to develop and for people to enjoy better standards of living – but not when it threatens the planet. It is not good at all that our own country has developed at the cost of harming the environment.

The exciting thing is that now the technology exists for countries to develop in ways that do not cause lots of pollution and greenhouse gas emissions. And nearly every country in the world has signed up to a special agreement called the Paris Agreement, which commits them to reduce their greenhouse gas emissions and invest in clean energy. Part of this agreement also gets the high income countries who have caused climate change to give money to the lower income countries to deal with the effects of climate change and help them develop in green ways.

You could ask pupils to research which countries are signed up to the Paris Agreement. Is the USA, the world's biggest polluter, in or out?

Science

Focus on renewables

Ask the class to suggest different ways in which we use energy in our everyday lives. They might like to go round the school and find as many things that use energy as they can! Answers might include: humans, lights, cars, heating, canteen cookers, computers, etc. Ask them: where does this energy come from?

Explain: Humans get their energy from food. But cars and buildings and gadgets get their energy from other sources, like electricity, gas and petrol. Petrol and gas are fossil fuels, which release greenhouse gases when they are burned to provide our energy. Electricity can release greenhouse gases too, because it is often made by burning coal (another fossil fuel). Livestock (like cows) are also a big contributor of greenhouse gases!

We need a certain amount of greenhouse gases in the atmosphere to maintain a stable temperature for life on our planet. But this balance is threatened by the level of gases human activity has pumped into the air over the last 200 years. Too much gas is warming the Earth (like a blanket around our world) and interfering with normal weather patterns. This makes extreme weather events like floods, droughts and storms much more frequent.

The exciting thing is that we no longer have to burn fossil fuels to make electricity. There are now clean, green ways to do it. Ask the class if they know any of these. Answers might include: solar panels, wind turbines, hydropower, energy from the sea (tidal and waves).

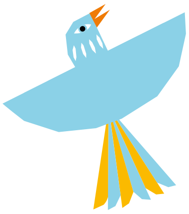
Split the class into groups and ask each group to focus on a different sort of power and research it, then get back to the class.

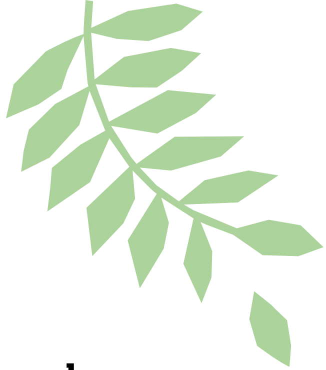
Focus on rising sea levels

Put lots of ice cubes with a small amount of water in a shallow tray. You could put in some rocks too, that poke out above the water, and mark the water level on them. Measure the water level before and after the ice melts. Explain that climate change is causing the ice caps to melt and this contributes to rising sea levels. If the rocks represent land, what does this mean?

Focus on the greenhouse effect

Take two thermometers and put them outside in the sun for five minutes. After five minutes, place one in a large, sealed glass or plastic jar. Leave for twenty minutes and then observe the temperatures. Which is hotter? The one in the jar is hotter, because the sun's energy has warmed the jar and the lid means that the warmth can't escape. That is the same principle as the greenhouse effect, which is warming our Earth. Greenhouse gases make our atmosphere (the jar!) thicker and the temperature inside warmer.





English and Citizenship

Focus on writing to your local politicians

Ask your pupils to write to their local politician* to explain what they have learned and what they would like them to do about climate change. They can ask them about their commitments to clean energy.

Share these top tips for communicating with politicians:

- be polite
- be clear
- be persuasive
- remember that politicians should listen to what you say, as an important part of their job is to represent you and your views.

* This might be their MP in the United Kingdom, with additional MSP in Scotland and MS in Wales or TD in the Republic of Ireland. You can find the contact details of these representatives online.

Focus on writing to banks

Did you know that some of the big banks still invest money in fossil fuels? Christian Aid is asking banks to stop funding projects that fuel climate change. Some pupils have already taken action and written to the CEO of one of these banks.

Focus on your school's own energy supply

Can your pupils turn detective and find out who supplies energy for your school? Is it a green tariff, or is the school still running on fossil fuels? If it is the latter, can they form an action group to try to persuade school decision-makers to switch to a green energy tariff? They will need to find out who makes the decision. Is it the finance committee of the governing body, the multi-academy trust or the local authority? The best people to ask in the first instance are the headteacher and/or the chair of governors. Once pupils have worked out who makes the decision, can they try to persuade them to switch to green energy? The people in charge of such decisions are obliged to get the best value for money, but that doesn't always mean the cheapest option. Could pupils work with the school council to build a convincing case for choosing green energy? How could they present that to decision-makers?

RE and Art

Focus on the core Christian value of stewardship

Teach that Christian Aid is a Christian organisation and its goal is to end poverty. Explain that the charity doesn't just help Christians – it works with people of all faiths and people who aren't religious at all. But it is motivated by its Christian faith to do this work.

There are lots of Christian teachings that inspire Christian Aid's work. Here are some important Christian concepts that inspire Christian Aid.

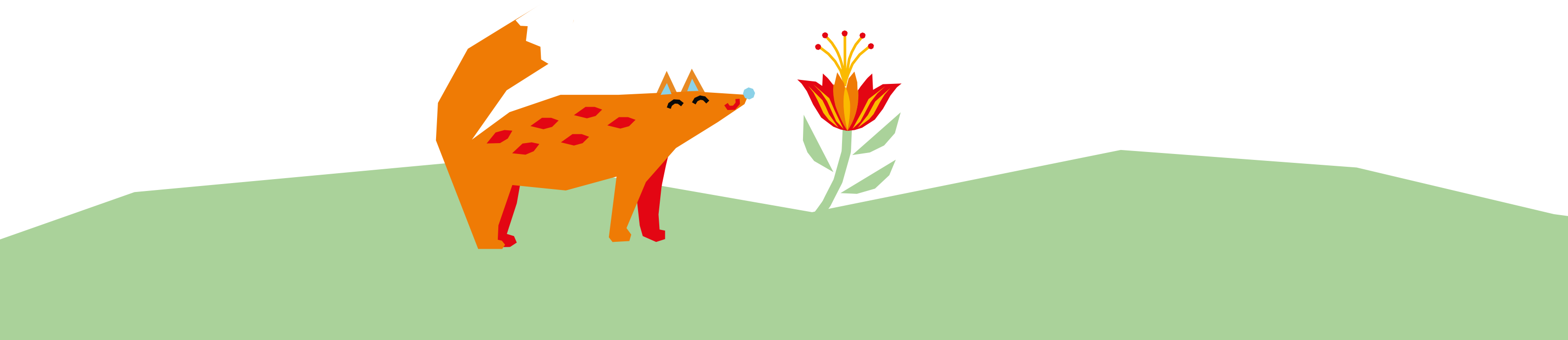
1. The dignity of all people
A really important aspect of Christian belief is that all people are made in the image of God – that all people have dignity and are worthy of God's love. That means that Christians have a duty to care for others.

2. The example of Jesus
Jesus cared for the poor and marginalised; he stood in solidarity with those who were ignored by the rest of society. Christian Aid applies this teaching in the modern world by standing up for people living in poverty who might otherwise be overlooked by those in power – like the people most affected by climate change.

3. Care for creation
Christians believe that God created our beautiful world. The Bible begins by telling the story of creation and includes an instruction from God to humans to care for, or show 'stewardship' for, the Earth.

You could ask pupils to draw pictures that illustrate one of these concepts.

Share the case studies on the next page with children. Ask them to read through these and discuss what these people have in common. What do we also have in common with them? How is each person responding to climate change? How will we respond?



You can photocopy this page

Our global neighbours are feeling the effects of climate change

Our responses to climate change

Vanessa Nakate, Uganda

Vanessa learnt about how rural communities in her country were suffering because of climate change. She heard about climate strikes and started a weekly protest to call on the Ugandan government to act on climate change. She is now a climate activist and has spoken at many global conferences on the topic. In 2019, she started the Vash Green Schools Project, a project that involves installing solar panels and clean cooking stoves in schools in Uganda.

Thomas Niblett, England

Thomas is from Surrey and has worked for climate justice through Christian Aid's Prophetic Activist Scheme (PAS), engaging Christians for climate justice. He has visited the Solomon Islands with the Melanesian Mission UK to see the environmental work done by the church. They are currently part of the Green Group of L'Arche Kent, a charity working with people with learning disabilities, focusing on food and plastic waste, and supporting local wildlife.

Mohamed Kamara, Sierra Leone

Mohamed is a teacher and a farmer. The impacts of climate change have caused problems in his community, especially for people who rely on the land and natural resources. Seasons shifting and extreme weather, like flooding, were damaging and destroying crops. Mohamed is one of the people who volunteers to monitor and report the data from the rain gauges that have been installed across three communities. This data helps farmers to know when to plant and harvest their crops. He is also teaching his students about the rain gauge, weather and the climate, and educating them on how to adapt to climate effects to prepare their community for the future.

Schoolchildren, UK

Pupils across England, Scotland and Wales have been busy creating art and poetry to express their feelings on climate justice. They take part in a yearly project called Creative for Climate Justice, holding local exhibitions displaying the work for their community and inviting political leaders to engage with them. Some of the work is then selected for exhibitions at Westminster, Holyrood and the Senedd where the political representatives are shown around by pupil tour guides. These young people speak up to people in power about the injustices suffered by those least responsible for climate change and the damage being done to the earth.

Which of these is best for the planet?

a) Trees

b) Cows

c) Cars

The answer is a! Trees absorb carbon dioxide (a greenhouse gas) so they can help to slow down global warming.

In which of these countries do people create more pollution?

a) India

b) United Kingdom

Answer: b. People in the UK are responsible for nearly twice as much carbon dioxide per person than people in India. If you got this right, stay where you are, otherwise it's down the fume!

You're at home and cold. Do you...

a) Turn the heating up.

b) Put on a jumper.

If you answered:

a) You could save energy by putting on a jumper first to warm up. Down you go.

b) Well done. Stay where you are, all snug in your jumper.

Do you turn electrical appliances off or leave them on standby?

a) I always turn them off.

b) I usually leave them on standby.

If you answered:

a) Well done, stay where you are.

b) Appliances use energy, even when they're on standby. Go down the fumes.

What is a greenhouse gas?

a) The smell inside a greenhouse.

b) A type of gas that thickens the Earth's atmosphere.

c) A side effect of Brussels sprouts!

Answer: b – of course! If you got it right stay where you are.

You help do the food shopping. The supermarket offers plastic bags for a small fee. Do you...

a) Use the eco-friendly bags you've brought with you instead.

b) Pay the charge and buy as many as you need.

If you answered:

a) Well done, stay where you are.

b) Slide down the chimney and take an eco-friendly bag with you next time.

Which of these is NOT a greenhouse gas:

a) Carbon dioxide (CO_2)

b) Methane

c) Oxygen

Answer: c. Methane and carbon dioxide are greenhouse gases, so if you chose either of them, down you go!

How many people in the world do experts think will have to leave their homes because of climate change by the year 2050?

a) Hundreds of people

b) Millions of people

c) Thousands of people

If you answered b, millions of people, you're right — stay where you are. Otherwise, down you go!

If sea levels in Bangladesh rise by 45cm, what percentage of the country would be under water?

a) 5%

b) 10%

c) 15%

Answer: b – 10%. If this happens, 5.5 million people will have to leave their homes.

Nearly every country in the world is signed up to a special agreement to cut their greenhouse gases. What's this agreement called?

a) The G8 Summit

b) The Magna Carta

c) The Paris Agreement

Answer: c. The Paris Agreement is a very important agreement which commits countries to cutting their carbon emissions and investing in green energy. If you got this right, up you go!

Which of these items can be recycled: printer cartridges; computers; mobile phones?

a) None of them

b) Mobile phones and printer cartridges

c) All of them

If you answered c, that's correct – up you go!

Which of these is the greenest type of car?

a) Diesel

b) Electric

c) Petrol

Answer: b. Electric. Hopefully, in the future, all cars will be powered by electricity. The government is phasing out the sale of new petrol and diesel cars from 2030. If you answered b, up you go.

Give one way you could save water.

Possible answers:

- Turn off the tap while you brush your teeth
- Take a shower instead of a bath
- Use a watering can instead of a hosepipe

If you couldn't think of one, stay where you are.

Do you know the name of your local politician?

If you know it – wow! Well done you – up you go! If not, see if you can find it out.

Did you know that you can write to your local politician and ask them what they are doing to tackle climate change?

Name a way that people can tackle climate change.

Answers might include:

- Telling politicians that you care
- Reducing your own pollution
- Eating less red meat
- Being driven less

If you gave a sensible answer, up you go!

What can be used to turn energy from the sun into electricity?

Answer: solar panels

If you knew this, up you go.

Name three sources of renewable energy.

Possible answers:

- Solar
- Wind
- Geothermal
- Hydroelectric
- Tidal

If you couldn't get three, stay where you are. If you did, go up.

LED lightbulbs use less electricity than ordinary bulbs. If it costs £300 a year to light your home using ordinary bulbs, and £30 a year using energy-saving bulbs, how much would you save per year?

Answer: £270

If you got this right, go up.

The solutions to climate change are everywhere! But the world needs to make the shift to renewable energy fast in order to tackle climate change.

The solutions to climate change are everywhere! But the world needs to make the shift to renewable energy fast in order to tackle climate change.

Christian Aid supporters everywhere – in schools, churches and the wider community – are lobbying their local politicians on climate change. Our goal is to make sure that tackling climate change stays on politicians' busy to-do lists!

If you feel daunted by the prospect of encouraging your pupils to be politically active, don't worry. While there are some aspects of politics that definitely don't belong in classrooms, climate change campaigning is not one of them. Climate change is a cross-party issue that demands urgent global action – plus climate change will impact young people directly, and their voices on this issue deserve to be heard.

Empowering young citizens

Christian Aid believes that good global education should empower pupils as young global citizens to be:

- informed and intentional in their choices
- outward-looking and interested in the bigger picture and different perspectives
- able to interrogate the status quo by questioning and exploring different viewpoints
- equipped to identify and challenge injustice through a variety of means, according to their context and personality
- modelling the change they want to see in the world
- offering solutions and alternatives

Christian Aid guidelines for campaigning in a school context

Campaigning should:

√ encourage pupils to think widely and deeply about issues (asking 'why')

√ empower pupils to understand political processes and their own rights and responsibilities in society

√ encourage them to think of creative solutions to problems (asking 'what can be done about it?')

√ equip them to identify where power is located and how decisions are made

√ enable them to express themselves confidently and articulately to decision-makers and others

Campaigning should not:

X be party political

X spoon-feed actions to pupils

X pretend that complex problems have simple solutions

X be un-thinking or reactionary

X fail to take account of a wide variety of differing viewpoints

X involve anything illegal or dangerous (obviously!)

This pack will help pupils to learn more about positive ways in which the world can embrace clean energy and tackle climate change. The lobbying aspect can be used to blend pupils' citizenship skills, understanding of British values and persuasive writing to influence their local decision-makers and express their feelings about the defining issue of our time.

An important note on talking about climate change for teachers

There is a lot of alarming and urgent messaging to be found on the subject of climate change. Please be sensitive when discussing this issue with children. This pack focuses on positive solutions and the active role that young people can play in shaping a better future for themselves and the planet.

For further reading and guidance on discussing climate themes, Christian Aid's Climate Feelings resource is available.

www.christianaid.org.uk/get-involved/schools/climate-feelings

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