#TogetherOnClimateChange

Climate Conversations

RESOURCE PACK

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Climate Conversation Resource Pack

This pack contains everything you need to hold your own Climate Conversation with your friends, family and networks. Including information & facts, and activities to keep the conversation flowing. Chat about climate change, what it means, and explore your thoughts around what we can all do to make a difference.

Don't forget to let us know that you have held a Climate Conversation.

If you have made a pledge, have any feedback on our climate conversation pack, or would like to recommend a friend to receive the pack, **we would love to hear from you via this form!**

Share pictures of your Climate Conversation with us on social media, using the hashtag #TogetherOnClimateChange

PACK CONTENTS

Climate Change and Key Terms

To help you to get started with your Climate Conversation, we have included some key facts and information on the next few pages that will give you some background information and get you thinking”

Weather describes the condition of the atmosphere in the short term, including temperature, humidity, wind speed and other conditions.

Climate refers to the average weather conditions in a particular location over time. We look to the climate to determine what kind of weather we expect a particular place to have.

Climate Change refers to the identifiable changes to the overall climate of Planet Earth, as well as the climates of world locations. Scientists have identified that Climate Change is attributable to the Greenhouse Gas Effect.

Climate Change and Key Terms

The Greenhouse Effect is what causes **global warming.** The Earth normally maintains its climate through a careful balance between gases in the atmosphere and those contained in natural stores, such as the carbon contained by plants, soils, minerals, and other resources.

Humans are bringing about dramatic climate change by releasing **greenhouse gases** at far greater rates than the Earth can store them, through activities such as burning fossil fuels and removing plants and other natural sources of carbon storage.

When we release **carbon dioxide** and other greenhouse gases, they enter the Earth's atmosphere and trap heat from the sun within planetary boundaries, making the Earth warmer. At normal levels, this effect is part of what makes the Earth a comfortable place to live and able to sustain diverse forms of plant, animal, and human life. However, when we increase the level of greenhouse gases in the atmosphere, the Earth traps extra heat, which starts to wreak havoc on the natural balance of the planet, endangering all its ecosystems and resident lifeforms.

The Impacts: Rising temperatures don't just mean we will get warmer weather. Climate change will make our weather patterns more extreme and unpredictable. This will result in numerous changes affecting every part of human lives, from difficulty growing food or accessing resources, to vulnerability to storms, floods, heatwaves, and other increasingly intense and numerous catastrophes.

Seawater levels will rise across the globe, forcing many people to migrate in huge numbers away from coastal regions. We have already seen the first climate refugees. At the same time, it will become harder to access clean water. Researchers from the Massachusetts Institute of Technology (MIT) say 52 percent of the world's projected 9.7 billion people will live in water-stressed regions by 2050. Many animals face extinction as their habitats is destroyed or dramatically changed. We already in an extinction crisis, a period of mass plant and animal extinction, and the rate is accelerating.

Whilst all of this may sound very bad, if we act now, there are things we can do to avoid the worst effects of climate change.

Climate Change and Key Terms

You may have heard of the term **net zero.** Net zero refers to a way of living or working where we emit no more greenhouse gases than we or the earth can recover each year, so there is no extra in the atmosphere.

We use carbon to refer to greenhouse gases in general, as it is the most common. We sometimes talk about the **global warming potential (GWP)** of other greenhouse gases in terms of carbon. For instance, Sulphur hexafluoride is a fluorinated gas that has a global warming potential (GWP) of 23,900. This means that it is 23,900 times worse for climate change than CO2. Luckily, Sulphur hexafluoride is very rare.

Carbon footprints are a measure of how much carbon your activities are responsible for. They range from individual carbon footprints, to the footprints of businesses, countries, or even larger regions. Many governments, businesses and other organisations are now committed to lowering their carbon footprints and going carbon neutral.

The UK is committed to a 2050 net zero target. This is in-line with the **Paris Climate Agreement,** which is a legally binding treaty adopted by 197 countries, to limit global warming to below 2, and preferably below 1.5 degrees Celsius, compared to pre-industrial levels. This may not sound like a lot, but every fraction can have huge impacts on the delicate balance of Earth.

There are different ways to measure our footprints. **Production based footprints** measure GHG emissions within a certain boundary, often the borders of a country. For instance, China is currently by far the biggest GHG emitter in terms of the overall production-based footprint. However, consumption-based footprints account for what we actually use, including goods that are made elsewhere and imported to serve our needs. This tells a different story, with developed Western nations typically consuming far more than the global average. When these are broken down by person, the story changes even more.

Currently, governments such as the UK and USA typically use production-based footprints to measure their share of emissions but have far higher consumption footprints.

You can estimate your own carbon footprint here

Carbon positive is a term used to describe the next step beyond net zero, when our actions help to take carbon out of the atmosphere. This is a next step towards counterbalancing the emissions we have already released.

Climate Change and Key Terms

Carbon offsetting is a term used for when a carbon positive project is pursued to compensate for emissions released elsewhere. For instance, an organisation that emits carbon in their own activities might fund a project to plant trees or a mangrove swamp, to try and offset the emissions they haven't yet eliminated. This is often called purchasing carbon credits. Organisations and residents need to be careful when choosing carbon offsets, to ensure they are picking projects that will reliably reduce carbon in the long-term. It is important to see offsetting as only a temporary or midway solution, whilst we are preparing to reach zero carbon in all activities.

Climate silence is a term used to note that although people are worried about climate change, they don't talk about it very much or are uncomfortable talking about it. Challenging climate silence is important because it is our discussion that provides the momentum for change.

How to have your own climate change conversation

A Climate Conversation is a chance to discuss the climate crisis and how we can all contribute to battling the climate change crisis. Social science shows that people are profoundly affected by the behaviour and views of those around them, particularly those they respect and trust. Politicians also need public discussion to spur on their actions.

The most important thing you can do to fight climate is to talk about it.

You can hold a climate conversation in-person or online, with family, friends, or anyone else who may want to participate.

Set aside some time to meet in a group **Grab some drinks and snacks!**

#TogetherOnClimateChange

Key Topic Areas

The information on key climate change topic areas featured on the next few pages will help to guide your conversations. Why not pick a topic that interests you, and chat about it with your group by using these discussion pointers.

Transport

- Transportation is the most polluting sector in the UK and produced about 27 % of overall total greenhouse gas emissions in 2019
- Whilst emissions from energy supply have fallen by 60% since 1990, emissions from transport have fallen by just 2%, despite more efficient cars and fuel supply
- Road Transport currently makes up about a quarter of carbon emissions in Wandsworth
- More journeys in Wandsworth are now made by foot than any other mode of transport!
- Bikeability Cycle Training is available in schools
- By the end of 2020, Wandsworth had more publicly available Electric Vehicle charge points than any other local authority area. By October 2021 there were 623 charging points in the borough and the council is installing more. To find out the most up-to-date numbers of electric vehicle charge points in Wandsworth and other council areas visit the Government website.

What we can do:

- For longer distance travel, try to go by train where possible, rather than taking the car or flying
- Try to walk or cycle where possible or use public transport. If you have to use a car, why not try car-sharing?
- Join a car club - Wandsworth has teamed up with three operators to provide dedicated car club bays all over the borough
- Check out our Try Before You Bike Scheme and look into cargo bikes
- Consider buying a fully electric vehicle instead of using a petrol or diesel car

Homes & Energy

- Over half of home energy is used for heating, so it is crucial to make sure that walls, roofs, and windows are insulated to cut back on heat waste and save costs.
- Around a third of heat in an insulated home is lost through the walls
- Over 46.3% of emissions in Wandsworth come from domestic buildings (a house, maisonette, apartment or flat occupied by one family at any one time)

What we can do:

- Switch energy suppliers - Check that your supplier is using renewable energy and that you are getting the best deal on energy (remember prices can fluctuate so be careful when timing a supplier switch!)
- Lower your thermostat if you can - even one degree makes a significant difference
- Switch off lights and appliances when not using them
- Consider upgrading your home. Improvements can range from cheap solutions such as better draught-proofing or LED lightbulbs, to bigger jobs such as loft insulation upgrades and solar panels. Making your house eco-friendlier can also help reduce your energy bills.
- Some schemes are available to help meet the cost of improvements for less energy-efficient households, such as the local Green Homes Grant. Look up how energy efficient your home is and if you are eligible for improvement grants.
- Choose energy efficient appliances - for instance, if you are buying a washing machine, fridge, or even a lightbulb, consider how efficient that appliance is compared to other options. Check out some of the tips provided by the energy saving trust.

Waste and what we use

For most of human existence, we operated on "waste not, want not" ideas. As we have modernised, we have moved to a culture that makes many goods just to be disposed of and encourages us to buy more than we need and to throw away rather than reuse. The structure of modern consumerism is not only unsustainable but is also damaging to wellbeing and mental health. Changing our relationship with stuff will help us waste less and adopt far healthier consumption practices.

- 2.5 billion disposable coffee cups are binned each year in the UK alone
- 1 truck full of plastic waste is dumped in the sea every minute
- 1 third of all food produced is wasted
- Most plastics are made from fossil fuels
- Recycling rates are increasing, but only slowly. 46.2% of household waste was recycled nationally in 2019, up from 45% in 2018
- More than 15% of the money we spend on goods pays for the production of packaging that goes in the bin
- We throw away over 227 thousand miles of wrapping paper every Christmas.
- Wandsworth is committed to encouraging the uptake of the 3 R's principles of reduce, reuse, recycle

What we can do:

The Waste Hierarchy has 5 pillars listed in order of preference (outlined below). The Waste Hierarchy sets out a hierarchy of options for managing waste in terms of what is best for the environment.

Any organisation that imports, produces, collects, transports, recovers or disposes of or operate as dealers or brokers of waste will be affected and must take into account the hierarchy when choosing a waste management option for their waste. All waste transfer notes, and consignment notes now have a declaration on them to say the waste hierarchy has been applied to the waste.

Detailed guidance on the waste hierarchy can be found here. (Source: Recycle More).

- Prevention - preventing and reducing waste generation.
- **Reuse and preparation for reuse -** giving the products a second life before they become waste.
- **Recycle -** any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes composting and it does not include incineration.
- **Recovery -** some waste incineration based on a political non-scientific formula that upgrades the less inefficient incinerators.
- **Disposal -** processes to dispose of waste be it landfilling, incineration, pyrolysis, gasification and other finalist solutions. (Source: Wikipedia)
- Recycle your batteries at collection points (often found in local shops). Only 27% of batteries are recycled in the UK
- Consider using what you own for longer, from clothes to household items, to phones. Repair and reuse rather than replace
- When your items are no longer useful to you, donate or recycle them rather than binning them.
- Consider buying second hand, swapping, and sharing goods
- Research where your products are coming from and if the company has a good environmental policy
- Buy products that are longer-lasting or can be taken apart and put back together (repairable) rather than disposable goods
- Try to avoid products with lots of packaging - think about using refill stores
- Try to only buy what you need
- Find out what you can recycle - RecycleNow have some fantastic tips sorted by location or by product type
- Double check what you can and can't recycle in Wandsworth by searching on our Waste and Recycling A-Z
- Watch this 4-minute video introducing the circular economy - A circular economy is good for businesses, consumers and the planet. ReLondon and EMF are great sources that go more in-depth on this concept
- Reflect on the debate about the impacts of consumerism

Local Green Spaces

Climate Change can threaten biodiversity. The environmental changes being driven by climate change are disturbing natural habitats and species in ways that are still only becoming clear. There are signs that rising temperatures are affecting biodiversity, while changing rainfall patterns, extreme weather events, and ocean acidification are putting pressure on species already threatened by other human activities.
(Source: The Royal Society)

The natural world is an incredible wonder that inspires us all. It underpins our economy, our society, indeed our very existence. Our forests, rivers, oceans and soils provide us with the food we eat, the air we breathe, the water we irrigate our crops with. We also rely on them for numerous other goods and services we depend on for our health, happiness and prosperity.
(Source: WWF)

Parks and local green spaces are crucial for nature and also for our mental health.

- Wandsworth Council currently maintains about 60,000 trees on public land, streets, parks, and housing sites.
- The council will be spending £100,000 on new trees over the next two years
- List of parks in Wandsworth
- Everyone knows the Thames, but can you name the other 2 rivers within Wandsworth?

What we can do:

- Recycle your litter wherever possible
- Encourage, enjoy, and record wildlife
- Get involved with local activities, partnerships, and friends' groups
- Embrace our green spaces

Air Quality

The air we breathe has direct and lasting effects on our health and wellbeing., and particularly affects our children and young people. Improving air quality is a key focus on many climate actions, including the expansion of the ultra-low emission zone for London. Action for Clean Air offers a range of practical tools, data and resources to help people, schools and businesses understand the effects of dirty air and what you can do to help protect your health.

- According to the WHO, air pollution is responsible for nearly seven million deaths each year and numerous other health effects
- More than 9 out of 10 of the world's population live in places where air pollution exceeds safe limits
- 99% of London exceeded WHO air pollution limits in 2019, although significant progress is being made, with just 14 primary and secondary schools located in areas exceeding legal pollution limits - down from 455 in 2016

We are committed to taking actions to improve air quality, identifying areas where levels of local air pollutants are exceeding air quality objectives and working with the community to reduce the pollutants and their effects on health. Our new Air Quality Action Plan will be published soon.

What we can do:

- Try to walk or cycle where possible or use public transport. If you have to use a car, why not try car-sharing?
- Join a car club - Wandsworth has teamed up with three operators to provide dedicated car club bays all over the borough
- Avoid burning at home - Domestic burnings, such as in open fires and garden waste fires, have a significant impact on air pollution, and are the UK's largest contributor to particulate matter emissions
- Plant more trees and greenery - Supporting local gardening projects or rewilding your own garden is a great way to improve air quality, as well as being good for any local wildlife. Don't be afraid to leave the boring grass behind or introduce wildflower borders to your garden. It's surprisingly easy. The Tree Council can provide connections, as well as information and resources on trees and planting. Head to the Wandsworth website for the council plan to plant trees and get advice on which trees are suitable for our area.
- Support Clean Air legislation - Keep an eye on local policies and what the government is doing about air pollution. Clean Air Zones and School Streets are crucial to protecting public health and wellbeing

Activities for your Climate Conversation

Activity 1
Talking about climate change

How serious is it?

Time: 10-20 minutes

Materials: Paper or a device for notes

Go round the group and ask

"Why do you think people don't talk about climate change?"

This question can be kept simple, and members of the group can give their own experiences on why they do not discuss climate change regularly.

If you want to make it more fun, you can have members of the group act out roles, for instance, try to act out how a teenager might find common ground with a retired farmer, or a politician, or someone you know personally. Consider different worries and solutions about climate change.

Remember that the solutions to climate change will make better places to live for everyone - cleaner air, more greenery, lower road noise etc.

Ask all participants to say on a scale from 1 to 10, how serious an issue they believe climate change to be (with 1 being not at all serious and 10 being extremely serious).

- Take a note of the scores on the paper
- Ask people to explain why they have given that score. For example, ask people who have given a high score, "Why do you think it is such a serious problem?". If some people have given a low score, ask "Why don't you think it is a serious problem?"
- Take a note of the key issues discussed on the feedback form

FACILITATION TIP

During this activity, try to draw out differing points of view. If everybody has very similar scores, try asking "Why do you think some people don't care about climate change?" or "Why do you think some people care so much about climate change and others don't?" **source: generationsworkingtogether.org.**

Activity 2

Quiz Source: apolitical

How much do you know about climate change?

Time: 10-20 minutes
Materials: Paper or a device to record your scores

This is a challenging quiz on climate change. Record your scores, see how many you can get right and find out which of your group knows the most about climate change! Head to page 18
to find the answers

1 Which of the following organisations is the international body that periodically assesses the science of climate change?

A G7
B UNFCCC
C COP
D IPCC

2 Over the last 10 years, what percent of emission growth is Fossil fuel combustion responsible for?

A 15%
B 64%
C 86%
D 95%

3 Which of the following are classified as greenhouse gases?

A Carbon dioxide
B Methane
C Fluorinated gases
D Nitrogen dioxide

4 Climate change scientists are very concerned about the potential to cross climate 'tipping points' What is a climate tipping point?

A When the Earth reaches a point at which it's no longer possible for the climate to change
B When climate change gets to the point where it pushes global, regional, or local parts of the Earth's natural systems into abrupt and potentially irreversible change
C When frequent extreme weather events convince people to support climate action
D When the warming planet increases the frequency of geological activity like earthquakes.

5 What do we call making changes to prepare for the effects of climate change?

A Climate resilience
B Climate mitigation
C Climate adaptation
D Climate expectation

6 Which of the following methods can we use to reduce greenhouse gas emissions?

A Invest in renewable energy instead of fossil fuels
B Strengthen carbon regulations
C Buy goods that can be repaired, reused, or repurposed, so fewer things are disposed of
D All of the above

7 Which are the two fastest growing sources of renewable energy?

A Hydropower and bioenergy
B Wind power and solar power
C Geothermal and nuclear power
D Wind power and geothermal energy

8 If you were to use less plastic, eat less meat, fly less, increase your recycling rate, and buy or sell second-hand goods instead of new products, what kind of climate action would you be taking part in?

- **A** Government regulation
- **B** Behavioural change
- **C** Corporate responsibility
- **D** Climate finance

9 "Just transition" is a term used to describe a transition to low carbon that is fair for everyone. What are two of the key goals of a just transition? (choose 2 answers)

- **A** Ensuring Fossil Fuel organisations do not go bankrupt
- **B** Ensuring that economic losses or gains from climate action are distributed fairly across communities or countries
- **C** Ensuring workers' rights and livelihoods are protected as the economy transitions to low carbon
- **D** Ensuring that the leaders of large companies are rewarded for climate action

10 As part of the Paris Agreement, high-income countries agreed to direct climate finance towards low-income countries to help them mitigate and adapt to the climate crisis. How much was this initial sum?

- **A** $10 million a year
- **B** $100 million a year
- **C** $1 billion a year
- **D** $100 billion a year

11 The UN supports the principle for international environment law, that we have 'common but differentiated responsibilities.' What does this mean?

- **A** All countries must take a different approach to climate change
- **B** All countries must face climate change, but not all are equally responsible or capable of addressing it
- **C** All countries should impose the same climate actions
- **D** All countries should contribute the same resources to climate change

12 Climate change is likely to result in a huge increase of the number of people who are forced to leave their homes due to changes in the environment, whether sudden or over time. About how many environmental migrants does the UN estimate there could be by 2050?

- **A** Up to 500,000
- **B** Between 500,000 and 25 million
- **C** Between 25 million and 200 million
- **D** More than 1 billion

There are many other climate change quizzes of different difficulties that can be found online, with some examples here:

What on earth is blue carbon? - The Marine Conservation Society

Test your knowledge on the ins and outs of how marine habitats like seagrass and salt marshes are as vital to storing carbon as forests and peatbogs are on land.

BBC Bitesize Climate Quiz

Financial Times Climate change Quiz

Cleanet Climate Quiz

London Transport Museum Green Transport Quiz

Activity 3

Climate Emergency Time

Time: 5 minutes
Materials: Paper or a device for notes

Read out the following statement:

> "Wandsworth has declared a climate emergency."

Ask participants to write on a scrap piece of paper or the Notes app on their phone the word or phrase that comes to mind when they hear 'global climate emergency'?

Ask participants to share what they wrote and why they chose that word or phrase.

Activity 4

Behavioural Change

Time: 15 - 25 minutes
Materials: Paper or a device to record your scores

Name an action that is being taken to address climate change that inspires you, or name one action on climate change that you would like to take but haven't yet.

If it helps, think about the area where you live in 15-20 years' time. What might that look like? Do you picture it with more wildlife, or less traffic? Do you think there will be less waste and rubbish?

As a group, rank the following statements according to how likely you think they are be true for Wandsworth by 2035:

- Most local journeys are taken via public transport, walking, or cycling
- Walking and cycling is easy, practical, and safe in the local area
- Most of the cars on the road are electric vehicles
- Most residents fly less than they did in 2021
- All homes have good insulation
- Most buildings have solar panels
- Tools and equipment are commonly rented or hired instead of bought
- Repair shops are commonly used instead of disposing of items
- Almost all waste is recycled or reused
- Food is rarely wasted
- Residents' diets are mostly plant-based

Discuss in your group why you have ranked these statements in this way. What community solutions can you think of to help make the statements a reality?

Pledge

To finish the session, we would like you all to consider making your own climate pledge and sharing your pledges amongst each other.

What changes would you like to take to make a positive impact on climate change?

Example - I pledge to walk or use public transport more often instead of driving.

You can find a list of the 16 most effective ways to reduce your personal footprint at the **Count Us In webpage**.

You can find Wandsworth Council's commitments on Air, Energy, Nature, Transport, Waste and Water **here.**

If you have made a pledge, have any feedback on our climate conversation pack, or would like to recommend a friend to receive the pack, **we would love to hear from you!**

Resources

There are a huge range of learning resources available online that cover every aspect of climate change, from the big science to the small changes you can personally make. For a starting point, check out the list of resources compiled by the charity SEEd (Sustainability and Environmental Education). For those who have encountered misinformation online, check out SkepticalScience.com for answers to many of the most common climate myths. Rewilding Britain advocates for the crucial role of nature and biodiversity to drive locally led economic regeneration that is good for nature, climate and people.

The Marine Conservation Society collates resources and advocates for urgent action to support our oceans, as well as providing tips for ocean-friendly living. Our oceans are vital for Earth's ecosystems and living creatures and are grave peril. Ocean-based solutions are crucial to addressing the climate crisis, but have often been overlooked for funding and key programmes, with only 1% of climate finance currently spent on the ocean.

The Ellen MacArthur Foundation (EMF) works with many partners to revolutionise our relationship with stuff, by creating a circular economy. For most of our existence, humans have operated by 'waste not, want not' styles of living. The work of EMF highlights that Innovative design changes will allow us to enjoy modern comforts without creating mountains of waste and destroying our environment and climate. ReLondon is a partnership between the Mayor of London and London's boroughs to improve waste and resource management and aim for circular solutions in London.

YouTube channels

NASA Climate change

Ellen MacArthur Foundation

WWF

Greenpeace

Kate Raworth's Doughnut Economics TED Talk

Carbon Brief

Books

'How bad are bananas' by Mike Berners-Lee provides a good introduction to how different objects and activities contribute to climate change.

'Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming' provides an overview of realistic and bold solutions to climate change, bringing together an international coalition of leading researchers, scientists and policymakers.

Naomi Klein's 'This Changes Everything' cracks down on climate myths and discusses how some powerful companies and the desire for continuous growth are clashing with what we know about addressing climate change.

'The Joyful Environmentalist' by Isabel Losada offers an feel good account of the authors sustainability journey, becoming a "little bit activitist" and finding personal solutions to climate change that don't annoy our friends (too much!).

'Turning the Tide on Plastic' by Lucy Siegle starts with the fact that enough plastic is thrown away every year to circle the planet four times, and promotes a new way of thinking about plastic to save items from landfill.

'The Sustainable Travel Handbook' by Lonely Planet offers tips on travelling sustainably and respectfully, motivating travellers to enjoy ethical tourism.

Penguin have compiled a list of 7 books to help teach children about the environment.

Quiz Answers:

1. D The Intergovernmental Panel on climate change is the UN body responsible for assessing climate change science and research. They publish reports to inform policymakers. The G7 is a political grouping of the world's seven wealthiest liberal democracies. COP stands for conference of the parties and is part of the United Nations climate change conference series. The UNFCCC is the United Nations Framework Convention on climate change, a task force designed to help limit the dangerous effects of global warming.

2. C The 2021 IPCC report showed that fossil fuel combustion is responsible for 86% of emission growth over the last 10 years. It is also responsible for 64% of the increase in human-caused CO2 emissions since 1750. Another key cause of emissions growth is land-use changes, such as deforestation and agriculture.

3. A, B and C Nitrogen dioxide is important in our atmosphere, but not considered a greenhouse gas. Fluorinated gases, or F-gases, are a family of gases containing fluorine. These greenhouse gases are particularly powerful at trapping heat in the atmosphere. For example, Sulphur hexafluoride is a fluorinated gas that has a global warming potential (GWP) of 23,900. This means that it is 23,900 times worse for climate change than CO2. This is also often expressed as "Carbon dioxide equivalent" (CO2e).

Luckily, Sulphur hexafluoride is very rare. However, it is increasingly used as an insulating material for electrical installations. Other F-gases include hydrofluorocarbons (HFCs) which are used in refrigeration, air-conditioning and in fire extinguishers and aerosols and perfluorocarbons (PFCs) which are used in the electronics, cosmetics, and pharmaceutical industries.

4. A Examples of key Tipping Points include the melting of permafrost, the deaths of coral reefs and the dieback of the rainforest. All of these can lead to dramatic changes in other areas of the climate and have catastrophic impacts. It is absolutely crucial that governments accelerate their actions to avoid these tipping points and limit warming.

Some positive climate tipping points do exist as well. For instance, adoption of electric vehicles within a country has been shown to be slow and steady until it hits a tipping point, from which it rapidly accelerates. Norway is a good example of a country that has hit this positive tipping point.

5. C Changes we make to adapt to changing conditions include preparing for more frequent extreme weather, like building flood prevention measures and even moving away from vulnerable areas. Climate mitigation is what we call actions that try to prevent, limit or reverse climate change, such as reducing emissions and planting new trees. Climate resilience is used to describe how resistant a particular person, group, place etc. is to the incoming effects of climate change.

6. D All of these are important changes on the road to net zero or carbon positive futures.

7. B All of these renewable sources will be important to transitioning away from fossil fuels to clean energy use. We are seeing a slow but steady increase of renewable energy in global electricity production (currently about 29%) of about 2% a year, and hopefully this rate will accelerate.

8. B These all examples of behaviour change that can reduce the carbon footprint of a person or organisation. These changes are part of the transition to low carbon societies. However, relying on behavioural change without strong government action and changes is unlikely to be enough to combat climate change. Remember: waste not, want not, and ask the government to do their bit.

9. B and C Transitioning to a climate friendly world and low carbon society has lots of lifestyle benefits and positive opportunities. It will be crucial to ensure that workers and communities have access to these benefits, and that no workers are left behind. Economic opportunities for all are fully compatible with fast and effective decarbonisation.

10. D Countries agreed to raise $100 billion a year in the form of loans, grants, and other climate investments to help low-income nations cut their emissions and adapt to prepare for negative climate change impacts. This is crucial, as low-income nations will likely suffer far more of the negative effects than richer countries, despite having much lower carbon emissions. The G7 convention in June 2021 emphasised that the high-income nations have failed to meet this commitment to providing vital funding, or even come close.

11. B This principle recognises two points. Firstly, that richer and more developed nations have historically emitted far more greenhouse gases than low-income countries. Secondly, that these high-income nations should bear more of the burden in addressing the problem, because they are more resources and capabilities of implementing change, as well as historical responsibility.

12. C The UN's current forecast is around 200 million climate migrants by 2050, although it is possible for the numbers of migrants to be up to 1 billion by this time. Climate migration is already occurring due to events such as droughts, typhoons, or reduced capability for agriculture. To put this into perspective, the European migrant crisis saw just under 5.2 million migrants come to Europe in 2015.

Climate Conversations

#TogetherOnClimateChange

togetheronclimatechange@wandsworth.gov.uk

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