

Our Pitch on Climate Action

PROTECT
OUR FUTURE

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Topics	Ages	Lesson Duration	Sustainable Development Goals
• Climate change and its impact on habitats • United Nations Sustainability Development Goals • Sport and athletes using their platform to drive climate action	8 – 11	60 minutes – 2 hours depending on discussion and choice of extension activities	

#OurPitch on Climate Action

During this session you will:

- **Understand what climate change is, its causes and its impact on different habitats**
- **Be introduced to the United Nations Sustainable Development Goals and their role in addressing climate action**
- **Explore how athletes can use their platform to drive positive change**



Climate change

We hear a lot about climate change these days. But what does it mean to **you**?

Activity!

Think of two words that link in your mind to climate change. Write them on sticky notes.



What is weather?

Activity!

What is the weather like today?



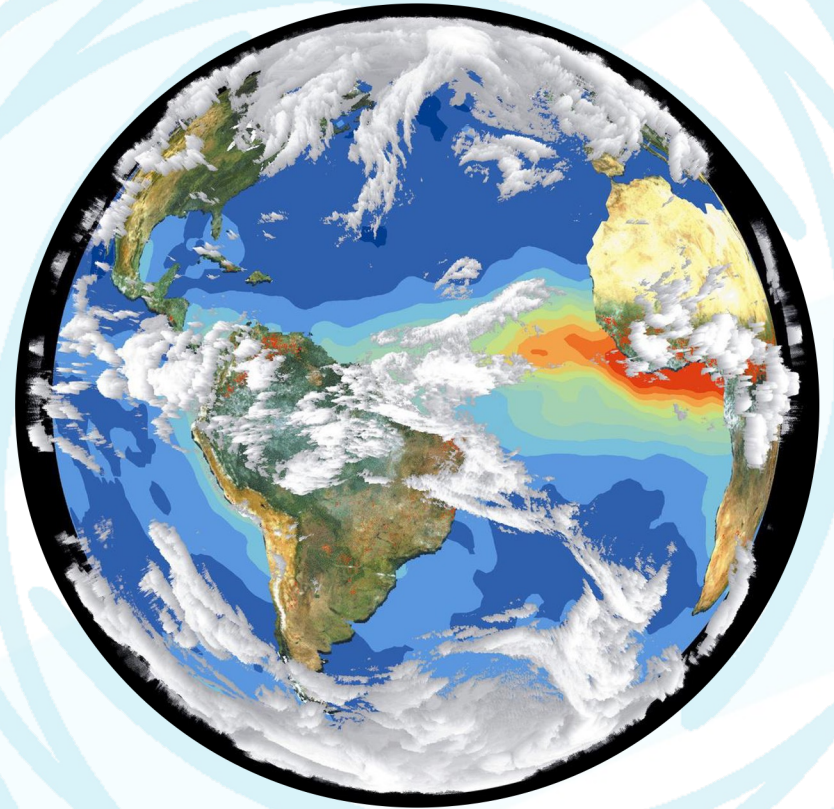
Weather...

Weather is the description of what the conditions are like in one place, at one time.

For example, the weather may be hot or cold, and windy or calm.



What is climate?

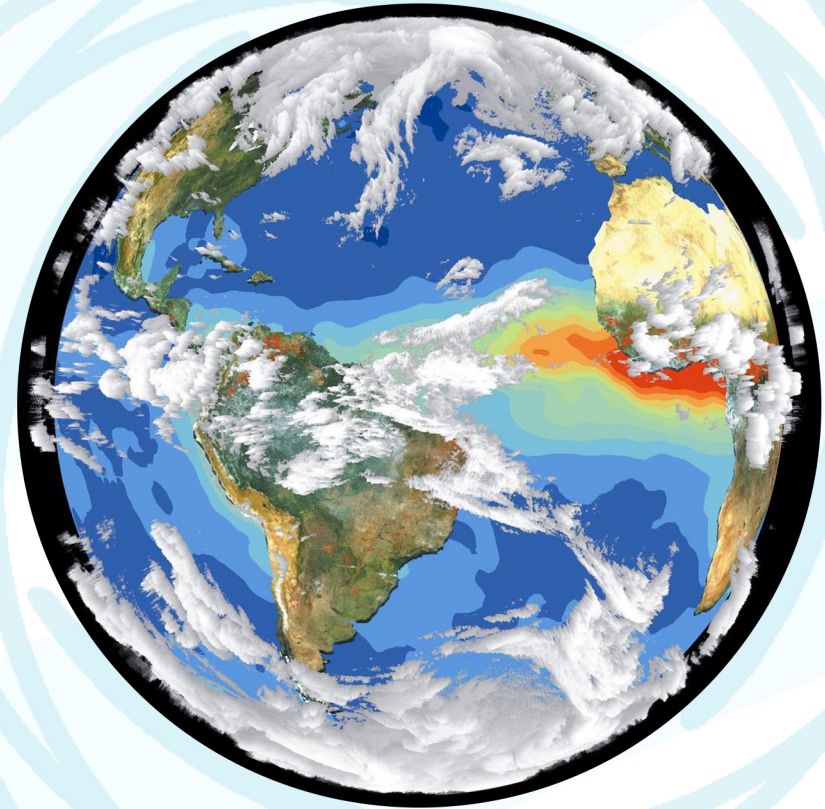


Climate...

The climate is the average of weather measured over a long period of time and across large geographic areas.

Activity!

How would we describe the climate in our country?



What is a habitat?



What is a habitat?

A habitat is a place where living things naturally live and grow. Habitats provide them with the food, water and shelter they need to live.

Oceans, Forests, Mountain & Polar Regions, Grasslands and Deserts are all examples of Habitats.



Let's explore some habitats and their climates

Ocean

Coral reef <https://www.openplanet.org/search/asset/53241145>

Forests

Rain forest <https://www.openplanet.org/search/asset/53530446>

Polar region

<https://www.openplanet.org/search/asset/53754507>

Grassland

<https://www.openplanet.org/search/asset/53524401>

Desert

<https://www.openplanet.org/search/asset/53225655>



Activity!

What is climate change?



Climate change...

Climate change refers to the shift in the Earth's usual weather conditions caused by humans over many years.

Unfortunately, our world has been getting hotter and weather more extreme (fires, floods, droughts and storms) which is affecting all our planet's habitats.



What is causing climate change?

Climate change is largely caused through human activity.



Burning fossil fuels



Cutting down trees



Plastic pollution



**Over farming animals
and crops**

These things add greenhouse gases (carbon dioxide, methane, nitrous oxides, and water vapour) to our air, trapping the Sun's energy and causing the Earth and oceans to warm.

We hear stories about the effects of climate change regularly

News on climate change often includes reports on how the Earth's temperature is rising.

Other changes are happening to including:

- **Warming of our oceans**
- **Melting of polar ice and glaciers that is leading to rising sea levels**
- **More extreme weather events**



Choose your favourite habitat



Ocean



Forest



Desert



Mountain and polar



Grassland

Ocean Habitat

Rising Sea Levels

When land-based polar ice melts, it finds its way to the sea. When water warms, it expands to take up more space causing sea levels to rise. Rising sea levels affects critical coastal habitats.

Rising Sea Temperature

Warmer waters cause coral bleaching, which in turn impacts coral reef ecosystems that are home to a dizzying array of marine biodiversity. Changes in water temperatures can directly affect the development and growth of most marine life

Changing ocean patterns and chemistry of seawater

Ocean currents play a major role in maintaining Earth's climate and are being altered by climate change. The burning of fossil fuels which increases greenhouse gas levels in the atmosphere, is altering the chemical composition of seawater by making it more acidic. This harms marine life.

Production of Plastics

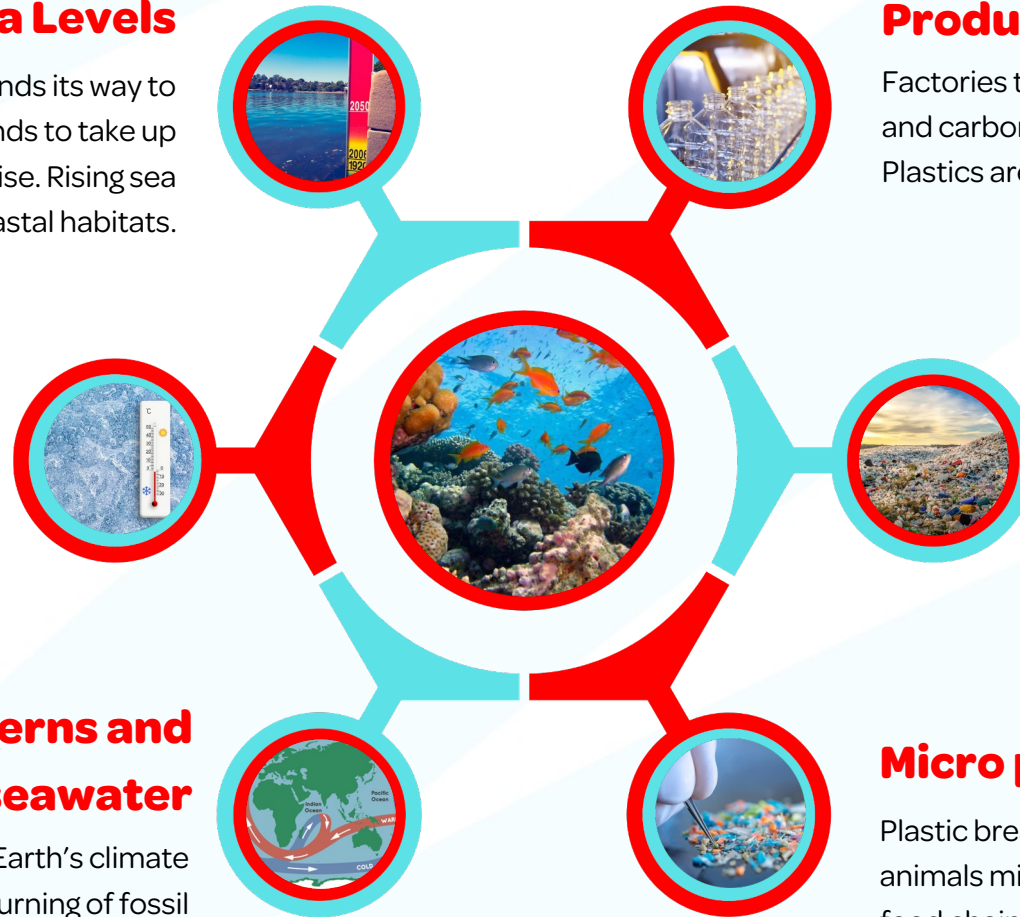
Factories that make plastics produce a lot of toxic fumes and carbon emissions which contribute to climate change. Plastics are used in all sorts of objects and clothes.

Plastic Waste

Plastic does not biodegrade. This means they won't break down naturally and unless we tidy them up, they will be around forever. Plastic litter is very harmful to wildlife and can harm or even kill birds, fish and other marine life. Sometimes plastics are burnt to get rid of them, this is very dangerous and releases more carbon into the atmosphere

Micro plastics

Plastic breaks down into tiny pieces in the sea and some animals might accidentally swallow it. This plastic enters to food chain which is not good for us or other animals.



Forest Habitat

Rainfall, water and soil quality

Forests have a big influence on rainfall patterns, water and soil quality and flood prevention too. As they begin to degrade the quality of water and soil and the amount of rainfall will be impacted.

More frequent forest droughts and fires

Climate change is creating warmer temperatures, deeper droughts and drier vegetation. These conditions lead to an increase in the extent, intensity and frequency of wildfires.

More forest pests

The warmer temperatures and drier conditions will likely increase insect survival and the growth of forest pests like the bark beetle that harm trees.

More CO₂

One of the most important things forests provide is absorbing carbon dioxide from the atmosphere and storing it in roots, soil, above-ground tree growth, and the forest floor. If forests are lost more carbon will be released into the atmosphere.

Loss of wildlife

Forests are vital for the health of our planet. They provide food and shelter for so much of life on Earth – from fungi and insects to tigers and elephants. More than half the world's land-based plants and animals, and three-quarters of all birds, live in and around forests. So if forests are lost so all the living things within them.

Over-farming

Humans have been chopping down billions of trees to provide wood and to clear land for farming. The majority of the deforestation is linked to meat, soya and palm oil.



Mountain & Polar Habitat

Rising Sea Levels

When land-based polar ice melts, it finds its way to the sea. When water warms, it expands to take up more space causing sea levels to rise. Rising sea levels affects critical coastal habitats.



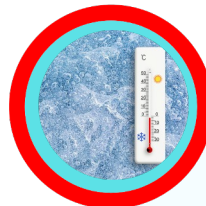
Lower levels of sea ice

Sea ice extent is shrinking. The decrease in volume and extent of sea ice has serious implications for marine mammals that depend on the ice for their survival, such as seals and polar bears. In addition to having effects on wildlife, declining sea ice accelerates the rate of ocean warming.



Rising Sea Temperature

Declining sea ice means ocean water around the world is getting warmer. Changes in water temperatures can directly affect the development and growth of most marine life



Changing chemistry of seawater

The burning of fossil fuels is making Arctic waters more acidic and harms marine life and other animals who rely on marine life for food..



Drilling for Oil & Gas

Much of the world's untapped oil reserves lie offshore, beneath waters in polar regions. Oil spills and noise pollution can kill birds, fish and marine mammals. The burning of oil is a major contributor to climate change.



Increase in wildfires

Climate change has been identified as the major culprit behind the wildfires we are witnessing in the Arctic, notably in Alaska and Siberia. The fires threaten valuable habitats for species like caribou and salmon and affect global food security.



Grassland Habitat

Desertification

Climate Change is impacting the amount of rainfall and soil quality in grasslands. Leading some areas to become deserts.



Balance of Grass and Trees

Grasslands are a fine balance of the amount of grass and tree coverage within them. Excess CO2 and rainfall can alter this fine balance and impact the ecosystem.



More frequent droughts and fires

Climate change is creating warmer temperatures, deeper droughts and drier vegetation. These conditions lead to an increase in the extent, intensity and frequency of wildfires.



More pests

The changing climate will likely increase insect survival and the growth of pests like locusts that harm grasslands.



Loss of wildlife

Grasslands such as the Serengeti National Park in Tanzania are home to the largest animal populations on Earth. As the temperature increases and grasslands are lost so are the animals that live or migrate there.



Over-farming

Humans have been clearing grasslands for farming. Almost half of all temperate grasslands and 16 percent of tropical grasslands have been converted to agricultural or industrial uses



Desert Habitat

Desertification is spreading

Climate Change is impacting the amount of rainfall and soil quality in grasslands. Leading some areas to become deserts.

More frequent droughts

Deserts don't have much water, to begin with, and climate change can make them even drier. This means there's even less water available for plants and animals, making it challenging for them to survive.

Increased Temperatures

Some deserts are already very hot, and climate change can make them even hotter. This can be tough for plants and animals that are used to the extreme desert heat.

Changing Rain Patterns

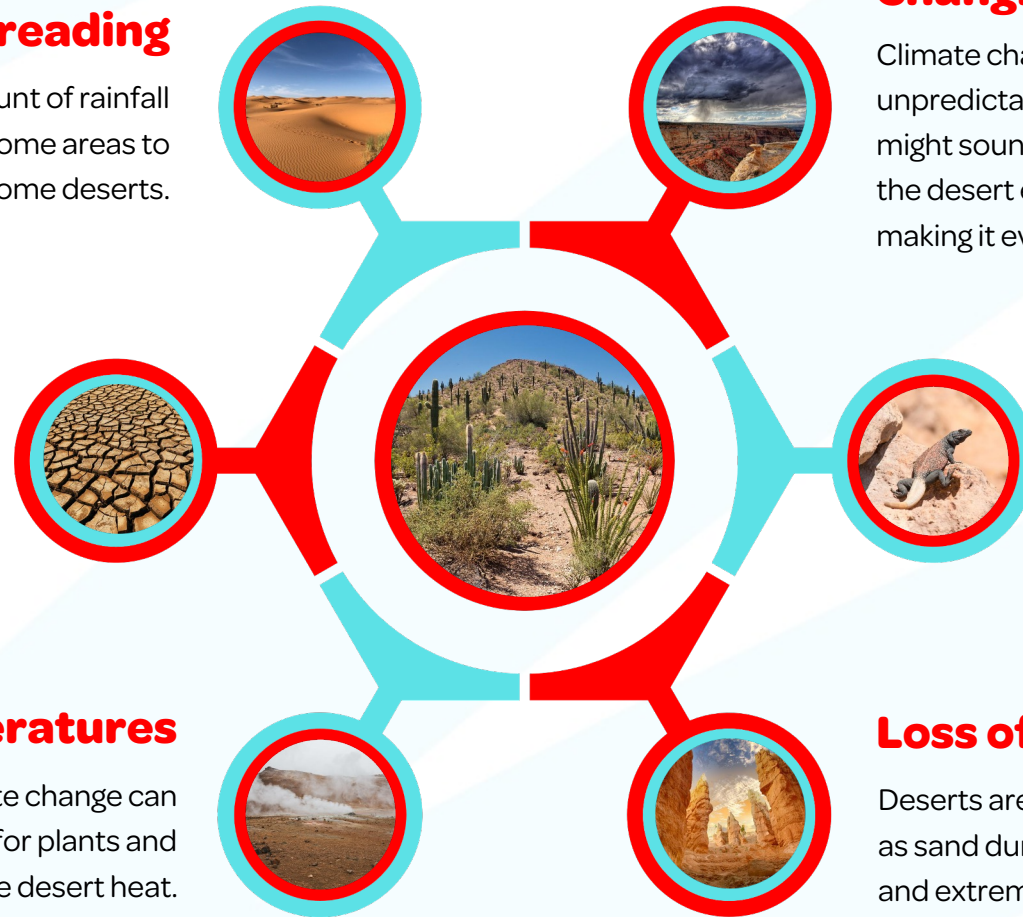
Climate change can make the rain in deserts more unpredictable. Sometimes, there can be heavy rains, which might sound good, but they can cause flooding and damage to the desert ecosystem. Other times, there might be less rain, making it even harder for plants and animals to find water.

Loss of wildlife

Some plants and animals in the desert are adapted to specific conditions. When the climate changes, their habitats can be affected. Some may struggle to survive in these new conditions, and this can lead to a loss of biodiversity.

Loss of unique geological features

Deserts are known for their unique geological features, such as sand dunes, canyons, and rock formations. Climate change and extreme weather can lead to changes in these features, impacting the natural beauty and geology of deserts.



How do these impacts make you feel?



**Does it make you sad,
angry, thoughtful?**

**Does it make you want to
protect a particular habitat?**



Climate change is such a big problem that we need everyone to take action to make a difference. That includes governments, businesses, sport organisations, schools, communities, me and you.

Impact of sport

Have you ever thought how sport is having an impact on the environment?

Think about how these sports use materials, buildings, energy, water and transport.

Quite an impact on the environment, right?



Finding solutions

The United Nations (UN) has asked sporting bodies around the world to recognise the impact that sport has on the planet and to sign up to take action on climate change.

One of the organisations that has signed an agreement with Sports for Climate Action is SailGP, an international sailing competition using high performance catamarans. The teams are seeing the impact of climate change around the world and want to take action to reduce their own impact and raise awareness of climate change for others.



United Nations Climate Change
Global Climate Action

Protect Our Future

The Emirates Great Britain SailGP Team has set up Protect Our Future to share and inspire others to take climate action.

***“If we don't act now, all the amazing sport that gives us such joy, from the grassroots all the way to the top of the professional game, is under threat from the impact of climate change.*”**

Sir Ben Ainslie
Driver of The Emirates GBR F50
Four-time Olympic Gold medalist



Athletes are using their platform to drive change



Activity!

Watch this video to discover what four international athletes are doing to drive positive climate action

Credit: Silverback Films and Open Planet

What action could we take in our class to help combat climate change?

**Remember these
are the four main
causes....**

**Climate action we take in our local
communities can positively impact
our global habitats.**



Burning fossil fuels



Cutting down trees



Plastic pollution



**Over farming animals
and crops**

We're not acting alone

In 2015, the United Nations brought governments and organizations together to agree some goals and actions that were needed to address climate change and other BIG global problems.

17 goals were developed called the Sustainable Development Goals.

Activity!

With help from your teacher, explore the SDGs.



We are not acting alone

In 2021, at the UN Climate conference in Paris, an agreement was made by 196 countries to target:

**'...holding global warming to below 2°C
trying to limit warming to 1.5°C'.**

SDG Goal 13 aims to take urgent action to combat climate change and its impacts by 2030.



How can sport help to achieve SDG 13?

In small groups discuss and note down how an athlete, sport or sports team of your choice could reduce their/its impact on climate change.

You could think about...

- **Waste:** Do they keep waste to a minimum? Does their waste get recycled, or does it go to landfill?
- **Energy:** How do they heat and light their pitches and buildings? Do they renewable energy?
- **Transport:** How do the athletes or team travel around? How do fans travel to see them?
- **Food and drink:** What food do athletes eat? What foods and drinks do their fans eat when watching them?

Every athlete respects, cares for and nurtures the space in which they perform. Without it they cannot be an athlete.

Your voice counts!

So far, we have looked at how sports athletes are taking direct action to tackle climate change. But many athletes also use their voices to promote causes that they believe in.

Which cause did Marcus Rashford lead a campaign on?



SDG 2: Zero Hunger

Marcus lobbied the UK government to offer free school meals throughout the summer months as well as term time.

He acted when it became clear to him that food poverty would increase due to a lack of free school meals when children were at home more during the COVID pandemic.

Aligned to SDG Goal 2: Zero Hunger, the footballer has since set up a “child food poverty task force” representing the UK’s biggest food brands, with the aim that they will work together to back solutions to food poverty.

2 ZERO HUNGER



SDG 3: Good Health and Wellbeing

In sport, Britain has won more Olympic cycling medals than any other nation.

But they had to overcome many hurdles, one of which was not getting sick – to win a gold medal you couldn't lose a day or training or racing to upper respiratory illness (sore throat, cold, fever).

The British Cycling Team came up with a behavioural change programme called 'Zero Day'. The Aim to lose zero days to upper respiratory illness and win medal for Britain.

How did they do this? The science of behavioural change.

**3 GOOD HEALTH
AND WELL-BEING**



SDG 5: Gender Equality

Following on from the Women's EURO 2022, the England Women's Football team wrote a letter to the UK government to improve gender equality.

They helped to secure £600m funding to ensure girls in the UK have equal access to football and other sports at school.

5 GENDER
EQUALITY



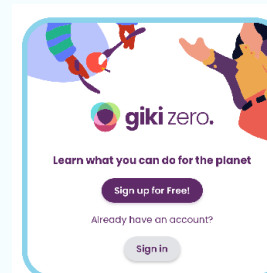
SDG 13: Climate Action

The Emirates Great Britain SailGP Team measures the amount of carbon dioxide generated by their activities and constantly looks to reduce it. This is called a carbon footprint.

The team look at everything they are doing, eating and using when they are competing. This includes their travel, the kit they wear and use, how they produce and used energy, the food they eat etc.

To help they use an online programme that measures the amount of carbon dioxide generated by their activities. This helped the team to see where their sport and behaviour was having the biggest impact on the environment and highlighted where they could take action to reduce their carbon footprint.

13 CLIMATE ACTION



Role models for climate action

Activity!

Find out more about athletes who are using their voices to inspire others to act on climate change.

- **Who are they?**
- **What is their message on climate action?**
- **What methods are they using to communicate their messages?**
- **How do you think they could communicate their messages to your age group?**
- **What action could your school could take?**

Don't forget

- **Every positive climate action counts**
- **Measure what you want to change**
- **Share your progress to inspire others**

#ProtectOurFuture

**By using your voice you can change behaviour
within your family, school, friends and communities**

Enter the **USE YOUR VOICE** Challenge, and win **£1000** for your school

Take action, use your voice and get creating

Find out more

www.protectourfuture.org/use-your-voice

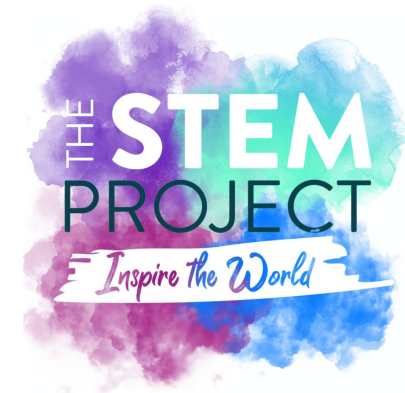
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This session has been informed by an ongoing Education Research Study 'Acting on Climate' conducted by a collective of researchers, artists and educators from the University of Warwick, UK. Turner-King, R., Smith, B., Hale-Smith, C., Brown, A.J. and Newbold, L. (2023). Earth Stories: Creative Outputs and Teaching Resources. [online] Acting on Climate. Available at: <https://actingonclimate.world/> [Accessed 19 Oct. 2023]



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