

# Climate emergency quiz



Ages: 13+



Time: 40 mins

## Purpose:

To learn more about the climate emergency.

## Youth work outcomes:

**Outcome 4:** Young people participate safely and effectively in groups

**Outcome 6:** Young people express their voice and demonstrate social commitment

## Sustainable development goals:



## How it works:

### In person:

Preparing the questions to be best read by your group, for example on a PowerPoint presentation or on handout sheets for small groups.

### Online:

A platform with the functionality to host quiz questions, for example Zoom polls or Kahoot.

### Description:

The quiz has four different rounds (Sea Level Rise; Science and Impacts; Climate Justice and Responses; Personal Behaviours). You could run the quiz using all four rounds or intersperse the rounds amongst other activities.

Use the questions below, or add your own, to create a quiz that best suits your needs and those of your community.

### Discussion questions:

- Which answers surprised you?
- Did the quiz make you reflect on your own behaviour?
- What impact would it have if more people knew these facts?

### Actions/next steps:

Explore one of the themes in more detail. There are other activities in this toolkit that focus on climate justice and climate change.

20  
YEARS



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# Climate emergency quiz

## Sea level rise

1. Global Warming can cause sea levels to rise due to which two processes?

- Thermal Expansion & Sea Ice Melt
- Sea Ice Melt & Ice Cap/Glacier Melt
- Ice Cap/Glacier Melt and Thermal Expansion
- Ice Cap/Glacier Melt and Increased Rainfall

2. It is currently estimated that by 2050 sea levels may rise by how much?

- 10cm
- 20cm
- 30cm

3. How many of the world's 15 largest cities are on the coast or a river estuary?

- 9
- 10
- 11
- 12

4. On average by how much are sea levels currently rising?

- 1mm per year
- 2.3mm per year
- 3.4mm per year
- 5mm per year

5. If the predicted rise in sea levels by 2050 occur, how many people is it estimated will be affected?

- 10 million
- 100 million
- 150 million

# Climate emergency quiz

## Science and Impacts

1. The amount of Greenhouse Gas emitted by an activity, person, country, etc. is known as what?

- A carbon pawprint
- A carbon handprint
- A carbon footprint
- A carbon fingerprint

2. When was it first proposed by the Swedish scientist Svante Arrhenius that human emissions of Greenhouse Gases could potentially impact the climate by causing Global Warming?

- 1850
- 1896
- 1946
- 1976

3. Which molecule of Greenhouse Gas has the highest Global Warming potential?

- Carbon Dioxide
- Methane
- Nitrous Oxide
- F – Gases

4. By how much have human activities increased the percentage of Carbon Dioxide in the atmosphere?

- 17
- 22
- 35
- 47

5. The Australian wild fires of 2019/20 killed an estimated how many number of animals?

- 100 million
- 300 million
- 500 million
- 1,000 million

6. The “Greenhouse Gas” effect was discovered by the scientist John Tyndell in which year?

- 1859
- 1914
- 1960
- 1979

7. According to the Netherlands Environmental Assessment Agency how many tonnes of Carbon Dioxide was emitted by human activities in 2012?

- 25 billion tonnes
- 30 billion tonnes
- 35 billion tonnes
- 45 billion tonnes

8. Which sector is responsible for the highest proportion of human emitted Greenhouse Gases?

- Energy
- Transport
- Agriculture
- Industry

9. For Scotland which sector, by 2015, had reduced annual Greenhouse Gas emissions by the LEAST since 1990?

- Energy
- Transport
- Agriculture
- Waste Management

10. Which of these is NOT predicted to happen globally if the world warms by 2C by 2100?

- 170% increased risk of flooding
- Virtually all coral reefs will be lost
- All fossil fuels will have been used up
- Arctic sea will be ice free at least 1 in every 10 years

# Climate emergency quiz

## Climate Justice and Responses

1. For a 2C rise in global temperatures what percentage of the population of Africa would be at the risk of malnutrition?

- 10%
- 25%
- 40%
- 50%

2. Which of these countries is rated as being the most at risk from Climate Change?

- South Africa
- Saudi Arabia
- Chad
- Mexico

3. Which country "per capita" has the highest emissions?

- Canada
- China
- Brazil
- India

4. By when must the world reach net zero Greenhouse Gas emissions to keep the world to no more than a 1.5C temperature rise?

- 2050
- 2060
- 2080
- 2100

5. By when will you no longer be able to buy a new petrol or diesel vehicle car or van in Scotland?

- 2030
- 2032
- 2040
- 2045

6. Which of these countries has the highest historic emissions?

- U.K.
- Kenya
- Brazil
- France
- Thailand

7. The 50% of the world's poorest population are responsible for how much of global Greenhouse Gas emissions?

- 0%
- 5%
- 10%
- 25%

8. Which country has not ratified the Paris Agreement to reduce Greenhouse Gas emissions?

- China
- Russia
- Turkey
- UK

9. By when is the Scottish Government committed to reduce net Greenhouse Gas emissions to zero?

- 2040
- 2045
- 2050
- 2055

10. How many people are estimated to have taken place in the September 2019 Global Climate Strikes?

- 1 million
- 3 million
- 4 million
- 6 million

# Climate emergency quiz

## Personal Behaviours

1. What are the current CO<sub>2</sub>e emissions of the average household in the U.K. per year?

- 11.4 tonnes
- 9.3 tonnes
- 10.2 tonnes
- 12.5 tonnes

2. Which of the following categories accounts for the highest proportion of emissions for the average U.K. household?

- Food
- Transport
- Housing
- Waste & Consumption

3. Which of these would you expect to have the lowest carbon emissions for a person consuming these foods in the U.K.?

- Tomatoes
- Bananas
- Apples
- Avocados

4. As of 2019, how much food is wasted in Scotland per year?

- 300,000 tonnes
- 400,000 tonnes
- 500,000 tonnes
- 600,000 tonnes

5. If you were to take a return trip from Edinburgh to London by train instead of flying, how much CO<sub>2</sub>e would this save?

- 126kg
- 95kg
- 73kg
- 67kg

6. In order to reach net zero by 2045 in Scotland, we should be aiming to reduce our annual CO<sub>2</sub>e emissions per household to:

- 1.1 tonnes
- 4.2 tonnes
- 3.7 tonnes
- 2.4 tonnes

7. Which of these foods emits the highest amount of CO<sub>2</sub>e?

- Pork
- Chicken
- Beef
- Fish

8. Which of these activities accounts for most of the CO<sub>2</sub>e generated from our homes?

- Lighting our homes
- Heating our homes
- Using appliances

9. If every household in Scotland turns their thermostat down by one degree, this will reduce housing emissions by...

- 1%
- 5%
- 10%
- Such a small change won't make a difference

10. Switching to one meat-free day per week can reduce a person's annual carbon footprint to the same extent as not driving a car for...

- A week
- A month
- A day
- It doesn't make a measurable difference

# Climate emergency quiz

## Personal Behaviours

11. Which behaviour change in the home would save the most U.K. energy in a year?

- Switching off the TV when not being watched
- Reduce shower time to maximum of 5 minutes
- Turn off unnecessary lights
- Turn the thermostat down by 1 degree Celsius

12. Which personal behaviour change would save the most Greenhouse Gas emissions?

- Avoid using a computer for a day
- Avoid driving for 5 miles
- Avoid using 3 plastic bottles
- Avoid using 30 plastic bags

13. Which behaviour change in the kitchen would give the biggest reduction to U.K. energy use?

- Not overfilling the kettle
- Cooking only with a microwave not a conventional oven
- Cooking with lids on saucepans
- Only using a dishwasher when it is full

14. If a person cycled for 5 miles a day, instead of driving, how much Greenhouse Gas emissions would be saved annually?

- 500kg
- 400kg
- 300kg
- 200kg

15. How long does it take the average person in the U.K. to emit the same amount of Greenhouse Gas as emitted annually by the average person in Rwanda?

- 5 days
- 2 weeks
- 1 month
- 3 months

16. Which personal behaviour emits the most global Greenhouse Gases per year?

- Using the Internet
- Buying new clothes
- Flying

17. Which personal U.K. journey would have the lowest Greenhouse Gas emissions on average?

- Driving for 100km by electric car
- Taking a 200km train journey
- Taking a 100km bus journey
- Flying 75km

18. Which of these personal behaviours has the highest total Greenhouse Gas emissions?

- Driving two miles a day for a year
- Taking a shower every day for a year
- Eating a bar of chocolate every day for a year

19. Eating beef 1-2 times a week for a year has the Greenhouse Gas emissions equivalent to?

- Driving a car for 500 miles
- Driving a car for 800 miles
- Driving a car for 1000 miles
- Driving a car for 1500 miles

# Answers

## Sea Level Rise:

1. Global Warming can cause sea levels to rise due to which two processes?  
Ice Cap/Glacier Melt and Thermal Expansion

2. On average how much are sea levels currently rising?  
3.4mm per year

3. It is currently estimated that by 2050 sea levels may rise by how much?  
30cm

4. If the predicted rise in sea levels by 2050 occur, how many people is it estimated will be affected?  
150 million

5. How many of the world's 15 largest cities are on the coast or a river estuary?  
11 (Tokyo, Shanghai, Mumbai, Osaka, Cairo, New York, Dhaka, Karachi, Buenos Aires, Kolkata, Istanbul)

## Science and Impacts

1. The amount of Greenhouse Gas emitted by an activity, person, country, etc. is known as what?  
A carbon footprint

2. The "Greenhouse Gas" effect was discovered by the scientist John Tyndell in which year?  
1859

3. When was it first proposed by the Swedish scientist Svante Arrhenius that human emissions of Greenhouse Gases could potentially impact the climate by causing Global Warming?  
1896

4. According to the Netherlands Environmental Assessment Agency how many tonnes of Carbon Dioxide was emitted by human activities in 2012?  
35 billion tonnes

5. Which molecule of Greenhouse Gas has the highest Global Warming potential?  
Artificial "F-Gases" such as refrigerants

6. What sector is responsible for the highest proportion of human emitted Greenhouse Gases?  
Energy

7. By how much have human activities increased the percentage of Carbon Dioxide to the atmosphere?  
47

8. For Scotland which sector, by 2015, had reduced annual Greenhouse Gas emissions by the LEAST since 1990?  
Transport

9. The Australian wild fires of 2019/20 killed an estimated number of animals?  
1,000 million

10. Which of these is NOT predicted to happen globally if the world warms by 2C by 2100?  
All fossil fuels will have been used up

# Answers

## Climate Justice and Responses

1. For a 2C rise in global temperatures what percentage of the population of Africa would be at the risk of malnutrition?

50%

2. Which of these countries has the highest historic emissions of Carbon Dioxide?

U.K.

3. Which of these countries is rated as being the most at risk from Climate Change?

Chad

4. The 50% of the world's poorest population are responsible for how much of global Greenhouse Gas emissions? 10%

5. Which country "per capita" has the highest emissions?

Canada

6. Which country has not ratified the Paris Agreement to reduce Greenhouse Gas emissions?

Turkey

7. By when must the world reach net zero Greenhouse Gas emissions to keep the world to no more than a 1.5C temperature rise?

2050

8. By when is the Scottish Government committed to reduce net Greenhouse Gas emissions to zero?

2045

9. By when will you no longer be able to buy a new petrol or diesel vehicle car or van in Scotland?

2032

10. How many people are estimated to have taken place in the September 2019 Global Climate Strikes?

6 million

## Personal Behaviours

1. What are the current CO<sub>2</sub>e emissions of the average household in the U.K. per year?

9.3 tonnes

2. In order to reach net zero by 2045 in Scotland, we should be aiming to reduce our annual CO<sub>2</sub>e emissions per household to:

1.1 tonnes

3. Which of the following categories accounts for the highest proportion of emissions for the average U.K. household?

Housing

# Answers

## Personal Behaviours

4. Which of these foods emits the highest amount of CO<sub>2</sub>e?

Beef

5. Which of these would you expect to have the lowest carbon emissions for a person consuming these foods in the U.K.?

Apples

6. Which of these activities accounts for most of the CO<sub>2</sub>e generated from our homes?

Heating our homes

7. As of 2019, how much food is wasted in Scotland per year?

600,000 tonnes

8. If every household in Scotland turns their thermostat down by one degree, this will reduce housing emissions by?

10%

9. If you were to take a return trip from Edinburgh to London by train instead of flying, how much CO<sub>2</sub>e would this save?

126kg

10. Switching to one meat-free day per week can reduce a person's annual carbon footprint to the same extent as not driving a car for...

A month

11. Which behaviour change in the home would save the most U.K. energy in a year?

Turn the thermostat down by 1 degree Celsius

12. Which personal behaviour emits the most global Greenhouse Gases per year?

Buying new clothes

13. Which personal behaviour change would save the most Greenhouse Gas emissions?

Avoid using 3 plastic bottles

14. Which personal U.K. journey would have the lowest Greenhouse Gas emissions on average?

Taking a 200km train journey

15. Which behaviour change in the kitchen would give the biggest reduction to U.K. energy use?

Not overfilling the kettle

16. Which of these personal behaviours has the highest total Greenhouse Gas emissions?

Eating a bar of chocolate every day for a year

17. If a person cycled for 5 miles a day, instead of driving, how much Greenhouse Gas emissions would be saved annually?

500kg

18. Eating beef 1-2 times a week for a year has the Greenhouse Gas emissions equivalent to?

Driving a car for 1500 miles

19. How long does it take the average person in the U.K. to emit the same amount of Greenhouse Gas as emitted annually by the average person in Rwanda?

5 days