

Climate literacy amongst school leavers 2025

**Royal Meteorological Society (RMetS)
Research report
November 2025**

Authors:

Eleanor Pinches

Prof. Sylvia Knight

Contents

Chapter 1: Introduction

Chapter 2: Summary of data and participation

Chapter 3: Baseline knowledge (core compulsory questions)

Chapter 4: Causes of climate change

Chapter 5: Evidence and impacts of climate change

Chapter 6: Adaptation and Mitigation

Chapter 7: Climate change in the UK

Chapter 8: Communication

Chapter 9: Key takeaways by question

Appendix 1: The survey (Questions and answer options)

1. Introduction

1.1 Purpose of the study

The aim of the study is to understand the level of climate literacy of those that are leaving secondary education, which includes 15- and 16-year-olds in England, Wales and Northern Ireland, and 14- to 17-year-olds in Scotland. The survey builds on the surveys done in previous years and allows us to identify any changes in the climate literacy of school leavers over time and as climate education policy evolves.

1.2 Development of the survey questions

The questions used in the Climate Literacy Survey (CLS) 2025 were mostly the same as those used in the 2024 survey (and can be seen in [Appendix 1](#)). The questions are designed not just to assess the knowledge and understanding of climate science but to make up a more holistic assessment including impacts of climate change, mitigation, adaptation and assessing credible sources of information. The questions are not directly tied to any specific curriculum, which would limit the possible questions, and have been designed with the aim of remaining relevant in 10 years' time.

The CLS consists of 5 core questions which are mandatory for every respondent followed by a bank of 50 questions, from which a set of 5 questions are randomly assigned to each respondent. The random allocation aims to reduce the possibility of students being prepared for the questions, to stop the survey being answered in groups and to limit awareness of questions and answers over time. The development process of these questions can be found in the Introduction to the 2024 Survey report¹.

1.3 Changes to questions

1.3.1 Section 2 – About you

This year we did not include the questions asking respondents about:

- Their school year
- Their parents' backgrounds

1.3.2 Section 3 – About your school

This year we included a new question, Q6, asking students to indicate what type of school they attended.

1.3.3 Section 5 – Randomly assigned question sets

This year changes were made to the following questions:

- Q20 – trusted sources
'Geography teacher' was added as an option after the survey had already been launched and six participants were randomly assigned this question set before the addition was made. As a result, the sample size for 'geography teacher' is slightly smaller compared to the other sources.
- Q31 – Defining mitigation

¹ [Climate literacy amongst school leavers, 2024](#)

In 2024 the two options to choose from aside from the 'I don't know' answers were 'minimising the potential impacts of climate change' and 'minimising the increase in the concentration of greenhouse gases (GHGs) in the atmosphere'. The first option was changed to 'adjusting to current and future climate change'. This was due to recognition that, in some resources, mitigation is said to be mitigating the risks of climate change. To eliminate this confusion transferring to the survey the options were changed so one answer was the correct definition and the other was the definition for adaptation.

- Q34 – carbon dioxide emission from fossil fuels, land use change and forestry since 1850
This question was changed to a ranking question. In 2024, respondents only had to select the largest contributors.
- Q43 – defining climate change
An ambiguity in the options last year was identified, with one of the options being close to, but not exactly the same as the United Nations (UN) definition. We provided an option that attributes climate change to natural cycles, to mirror another option.
- Q45 – indicators of a warming climate
'Poor air quality' and 'none of these things' were added as an option. Air quality was added to evidence the confusion around the cause of it, and subsequent misunderstanding of the purpose of low emission zones etc.
- Q47 – fastest climate change
This question replaces a question from last year that asked about the carbon flux from burning a felled tree. It is similar to Q59, however instead of regions it asks about countries.
- Q50 – defining adaptation
The changes in this question mirror the change made in Q31.

1.4 Methodology

This year the CLS was not funded by the Department for Education and was the first year IPSOS were not involved in the delivery, marketing and communication to schools or the analysis of the results. This provided the opportunity for all 55 questions to be open to respondents in all Nations of the UK. Previously, the core questions were the only questions open to all 4 Nations, with the extended questions being answered in England only. Instead, the RMetS education and communications teams were responsible for marketing the survey and engaging schools.

The survey ran from the beginning of January to the end of March for England, Wales and Northern Ireland and closed for Scotland at the end of June, to reflect differences in the school calendars across the Nations.

1.4.1 Platform

The Royal Meteorological Society (RMetS) used Survey Monkey to host the CLS in 2025. The platform enabled surveys to be completed across the nations, online and allowed randomisation of the bundle of 5 questions.

1.4.2 Communicating with schools

RMetS used social media, teachers' groups, education organisations and societies, assessment authorities and pre-existing connections to communicate about the survey being open.

Direct emails were sent to secondary schools in Northern Ireland and Wales. Email addresses taken from databases on the respective governing education bodies' websites went to generic school emails such as office@ or info@. We were unable to track how many were received, and there is the risk that emails went into spam folders or didn't make it to teaching staff.

At the beginning of the survey there was a [detailed note](#) explaining why and how data was being collected, stating that data was anonymous and how it will be used and presented in the future.

1.4.3 Eligible school leavers

The survey was open for year 11 students in England and Wales, year 12 students in Northern Ireland and S4 students in Scotland. Students in these academic years are 15- and 16-years-old with the exception of Scotland where students can be 14-, 15-, 16-, or 17-years-old. The instructions stated that participation needed to be online, in school time and in classes (mixed ability and subject classes such as tutor/form groups were encouraged but there is no way of enforcing or tracking this).

1.4.4 Data cleaning

The data went through an extensive cleaning process:

1. All surveys that were opened and unfinished were omitted.
2. Responses with incorrect postcodes were omitted. However, postcodes that clearly had a typing mistake or were incomplete were included if they clearly were amongst a class set. For example, if 15 responses were seen from RG1 7LL between 8.30-8.50am on a given day and, amongst these, there was a postcode provided that said RG1 77L or shortened to RG1 the assumption was made that the response was from the same class and school.
3. Responses submitted outside of school time were omitted. 08:00-18:00 was the window accepted to account for schools with longer school days or after school clubs.
4. Responses with incorrect ages were omitted. 15- and 16-year-olds were accepted in all nations, with 14- and 17-year-olds also accepted in Scotland.
5. Survey responses that were clearly not taken as a class were omitted. The smallest class group accepted was 6 when, despite a small class size, the survey had clearly been taken during school time.

In addition to this there were extra checks made on specific questions. SurveyMonkey had some limitations to its functions:

- In SurveyMonkey, multiple choice questions which allow more than one option to be selected can only have one exclusive 'I don't know' answer (which prevents you selecting another option as well). However, for a number of the questions, we needed two 'I don't know' answers, for example Q16 needed 'I don't know what 'adapting' means' and 'I don't know the answer'. In these questions, if one of the 'I don't know' answers was selected in addition to another answer, the response to this question was omitted.

- Ranking questions also had limited ability to include ‘I don’t know’ answers. Take Q9 in the core questions, which requires ranking from 1 (most) to 5 (least). If ‘I don’t know’ was selected for any of the factors, it would then allow ranking from 1-4. This is an issue as respondents may know which factor is 1 and 5 but are unsure of the factors in the middle but no way of communicating this. Responses that selected ‘I don’t know’ and continued to rank other factors were omitted.

2. Summary of data and participation

2.1 Overall numbers

This year, the CLS was undertaken by 1813 school students. Of these, 1082 responses from 26 schools were left following the data cleaning process.

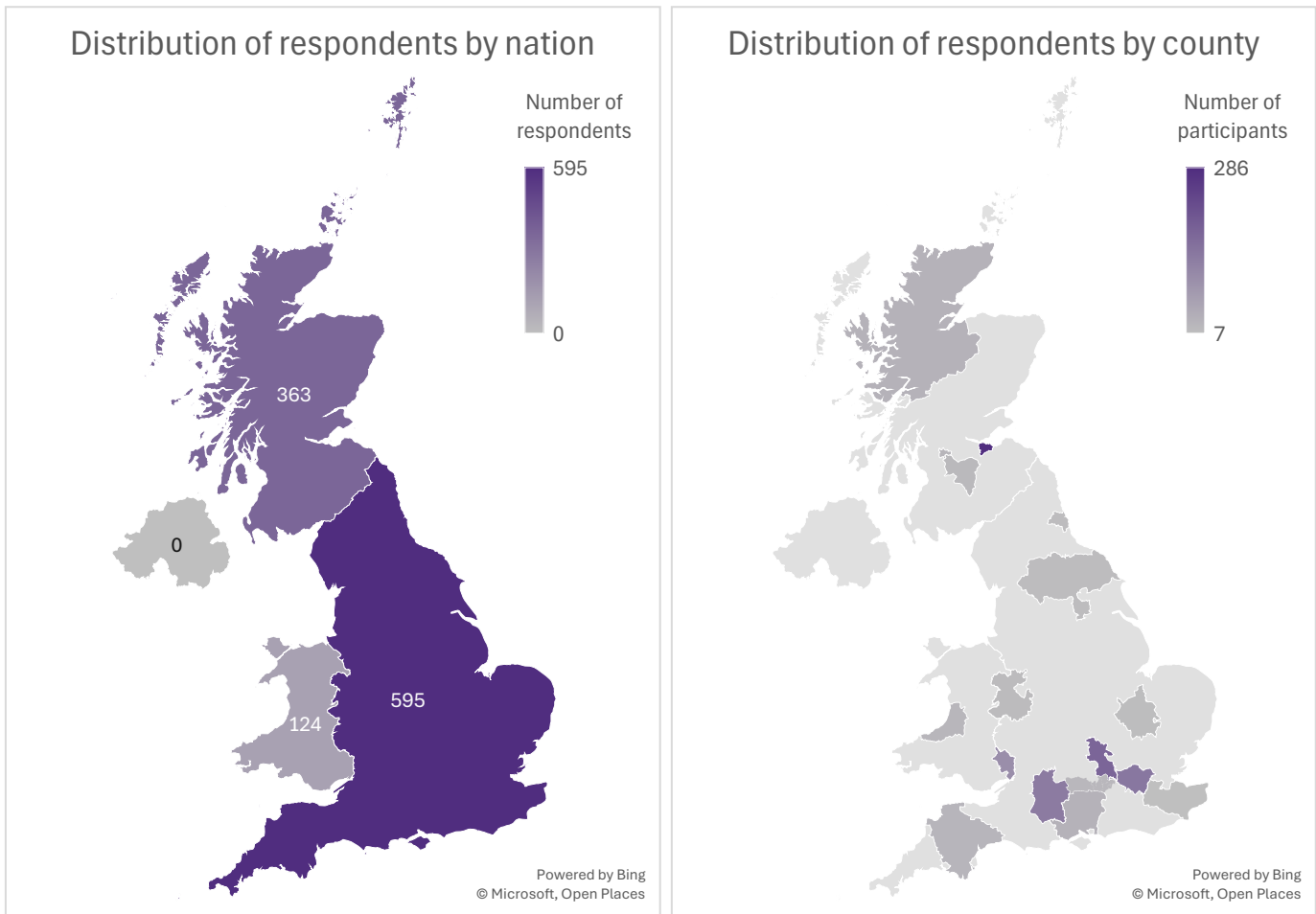
Data cleaning step	Lost	Numbers left after cleaning
Step 1 – unfinished surveys	240	1573
Step 2 – incorrect postcodes	4	1569
Step 3 – Timing	87	1482
Step 4 – Age	369 (100 lost from England, N Ireland, Wales, 269 from Scotland)	1113
Step 5 – Class	31	1082

The largest loss of responses was when ensuring the respondents were of the correct age. This highlights the need to improve communication about age requirements in future years.

All responses from Northern Ireland were omitted during the data cleaning process because they were not completed during class time, were submitted outside regular school hours, and were too few in number (suggesting they were not done in a classroom setting).

The national breakdown shows that 595 respondents were from schools in England, 363 in Scotland and 124 from Wales after cleaning. This is an increase from 2024, and this increase is seen in all three nations independently, most noticeably in Scotland with more than three times the number of Scottish responses this year. However, despite having more responses than 2024, the respondents were from a smaller pool of schools overall. Less schools participated from England and Wales, however the number of Scottish schools increased, in line with the increase in respondents participating in this nation.

Respondent numbers after data cleaning	2025		2024	
	Students	Schools	Students	Schools
All nations	1082	26	724	30
England	595	16	522	23
Scotland	363	7	112	2
Wales	124	3	90	5
N Ireland	0	0	0	0



n=1082

2.2 Data presentation

When interpreting the data tables and figures it is important to note that the data presented as percentages may not add up to 100% exactly and this is simply due to rounding errors, multiple choice questions allowing for multiple answers or the exclusion of some responses such as 'I don't know'. The sample size for all the charts has been included as a reference.

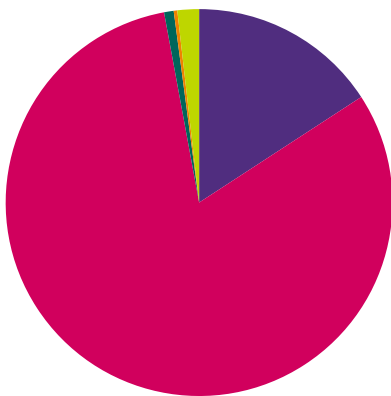
2.3 Demographics

2.3.1 Gender

The respondents that participated in the CLS this year mostly identified as girls. Just over two thirds of respondents were girls (67%) with over a quarter identifying as boys (29%). This imbalance is caused mainly by participants in England, where 81% of respondents identified as girls, and only 16% as boys. In Wales and Scotland the balance between girls and boys was much more balanced and more representative of the national data. It is also worth noting that some national data allowed for students to identify in more ways than the options provided in the CLS.

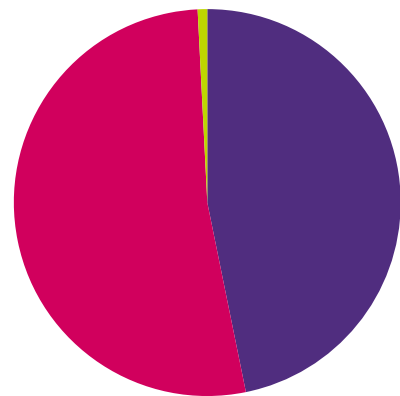
Percentages	Females		Males	
	2025 survey	National data	2025 survey	National data
All nations	67	N/A	29	N/A
England	81	49 ²	16	51 ²
Scotland	48	50 ³	44	50 ³
Wales	52	49 ⁴	47	51 ⁴

Gender split in England



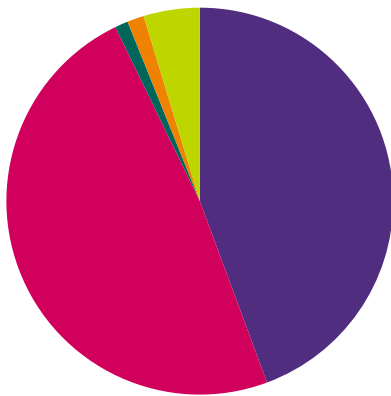
■ Boy ■ Girl ■ Non-binary ■ My gender is not listed ■ Prefer

Gender split in Wales



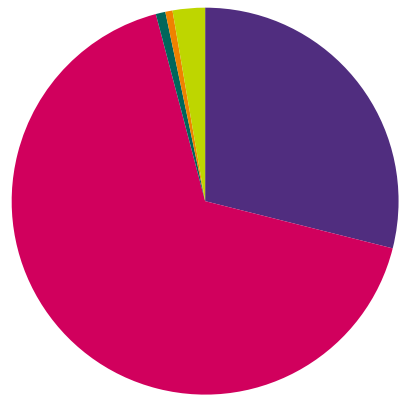
■ Boy ■ Girl ■ Non-binary ■ My gender is not listed ■ Prefer

Gender split in Scotland



■ Boy ■ Girl ■ Non-binary ■ My gender is not listed ■ Prefer

Gender split across all nations



■ Boy ■ Girl ■ Non-binary ■ My gender is not listed ■ Prefer

Q1. $n_{all} = 1082$. $n_{England} = 595$.
 $n_{Scotland} = 363$. $n_{Wales} = 124$

² [Explore Education Statistics, gov.uk, 2025](https://www.gov.uk/explore-education-statistics)

³ [Secondary school information dashboard, 2025](https://www.stats.gov.uk/secondary-school-information)

⁴ [Pupil Level Annual School Census January 2025, statswales.gov, 2025](https://www.stats.gov.uk/pupil-level-annual-school-census)

2.3.2 Ethnicity

The following tables show the ethnicity of the respondents who participated in the CLS this year, alongside the national data. The ethnicity options presented to participants are taken from the categories used by the Department for Education, however other nations use different categories. The data is presented in broader categories to help account for the variations in how ethnicity is recorded and prevents identification of individuals in small groups.

It is important to note that Scotland had the largest percentage of respondents who selected ‘other’ and this was largely accompanied by participants submitting a response of ‘White Scottish’.

Percentages	Percentage of respondents (%)						
	All nations	England		Scotland		Wales	
	Survey	Survey	Data ²	Survey	Data ⁵	Survey	Data ⁶
Asian/Asian British	12	16	14	10	6	5	3
Black/ African/ Caribbean/ Black British	3	3	7	3	4	1	2
Multiple ethnic groups	6	7	7	7	2	1	4
White	72	70	68	69	85	90	88
Any other ethnic group	5	3	4	9	3	3	2
Prefer not to say / Undisclosed	2	2	N/A	3	1	0	N/A

2.3.2 Age

The survey targeted Year 11 students in England and Wales and Year 12 students in Northern Ireland. These students are expected to be 15- and 16-year-olds. S4 was the target for students in Scotland where students are of a slightly different age. Although the majority are expected to be 15- and 16-year-olds some may be 14- and 17-year-olds.

The survey was opened in January, less than halfway through the academic year and so we could perhaps expect the majority of students to be in the younger bounds of the age years. This is what we see across all 3 nations, and even more so in Scotland.

Percentages	Percentage of respondents (%)			
	All nations	England	Scotland	Wales
14	7		22	
15	53	51	56	52
16	39	49	20	48
17	1		2	

⁵ [Pupil census supplementary statistics](#), Scottish Government, 2025

⁶ [Schools' census results: January 2025](#), Welsh Government, 2025

2.3.3 Type of school

This question was poorly answered, evidenced by a class providing the same school postcode but suggesting different types of school. In addition to this some of the 'other' specified school types given by respondents fit within the provided options, for example a state funded grammar school. There is also confusion around the term 'academy'. Its inclusion in the options refers to the academy model in England only, however academy is a term used in the other nations but with a different meaning.

Using the raw postcode data, we were able to identify and categorise schools. Overall, 26 schools participated in the CLS this year, a slight decrease from 2024. However, the national spread of schools has changed since 2024 with an increase in number of schools from Scotland. We can also see that 46% of the English schools that took part were Independent girls only schools. No data was collected from special schools.

Number of schools		All nations 2025	All nations 2024	England 2025	Scotland 2025	Wales 2025
All types	N/A	26	23	16	7	3
Maintained	Total	13	N/A	5	5	3
	Co-education	11	N/A	3	5	3
	Girls only	1	N/A	1	0	0
	Boys only	1	N/A	1	0	0
Independent	Total	9	N/A	7	2	0
	Co-education	3	N/A	1	2	0
	Girls only	6	N/A	6	0	0
	Boys only	0	N/A	0	0	0
Academy	Total	4	N/A	4	0	0
	Co-education	2	N/A	2	0	0
	Girls only	1	N/A	1	0	0
	Boys only	1	N/A	1	0	0
College	N/A	0	N/A	0	0	0
Special school	N/A	0	N/A	0	0	0

If we break this down into the percentage of respondents in each type of school, we can compare against national statistics. The pool of Welsh school leavers that participated were the most representative, with England's participants being the least – with an inflated number of independent school students taking the survey and an underrepresentation of local authority maintained and academy school students.

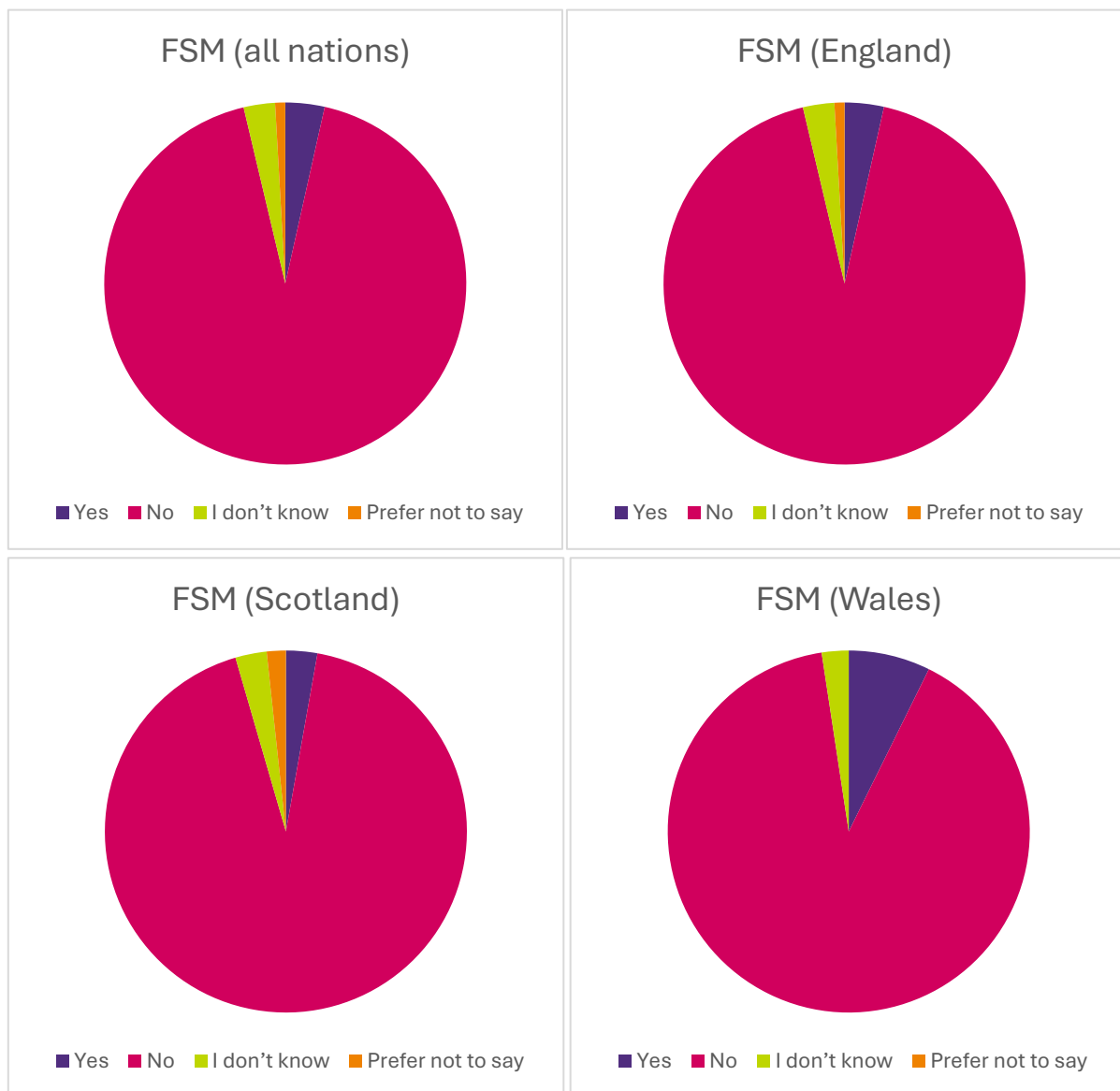
Percentage of respondents		All nations 2025	England		Scotland		Wales	
Type of school			Survey	Data2	Survey	Data	Survey	Data ⁴
Maintained	Total	61	38	35	86	96	100	98
	Co-education	46	11	N/A	86	N/A	100	N/A
	Girls only	13	23	N/A	0	N/A	0	N/A
	Boys only	2	4	N/A	0	N/A	0	N/A
Independent	Total	24	34	6	14	4 ⁷	0	2
	Co-education	7	4	N/A	14	N/A	0	N/A
	Girls only	16	30	N/A	0	N/A	0	N/A
	Boys only	0	0	N/A	0	N/A	0	N/A
Academy	Total	16	28	58 ⁽⁴⁾	0	N/A	0	N/A
	Co-education	3	6	N/A	0	N/A	0	N/A
	Girls only	12	21	N/A	0	N/A	0	N/A
	Boys only	1	1	N/A	0	N/A	0	N/A

⁷ Annual Census, Scottish Council of Independent Schools, 2023

2.3.4 School meals

In this year's data there was a high proportion of respondents who do not receive free school meals (FSM). The percentage of respondents eligible for free school meals in Scotland and England is 3% with 7% in Wales.

However, for all the nations this is well below the national statistics, with 25.8% being eligible in England², 18.4% in Wales⁶ and 63.9% in Scotland⁸. This would suggest that, particularly in England and Scotland, that the small percentage of free school meal candidates has been biased by the high proportion of Independent schools. The Welsh statistics would suggest the schools taking part in the CLS are in areas with higher affluence.



Q1. n_all = 1082. n_England= 595.
n_Scotland = 363. n_Wales = 124

⁸ [School healthy living survey school meal uptake – supplementary statistics 2024](#), Scottish Government, 2024

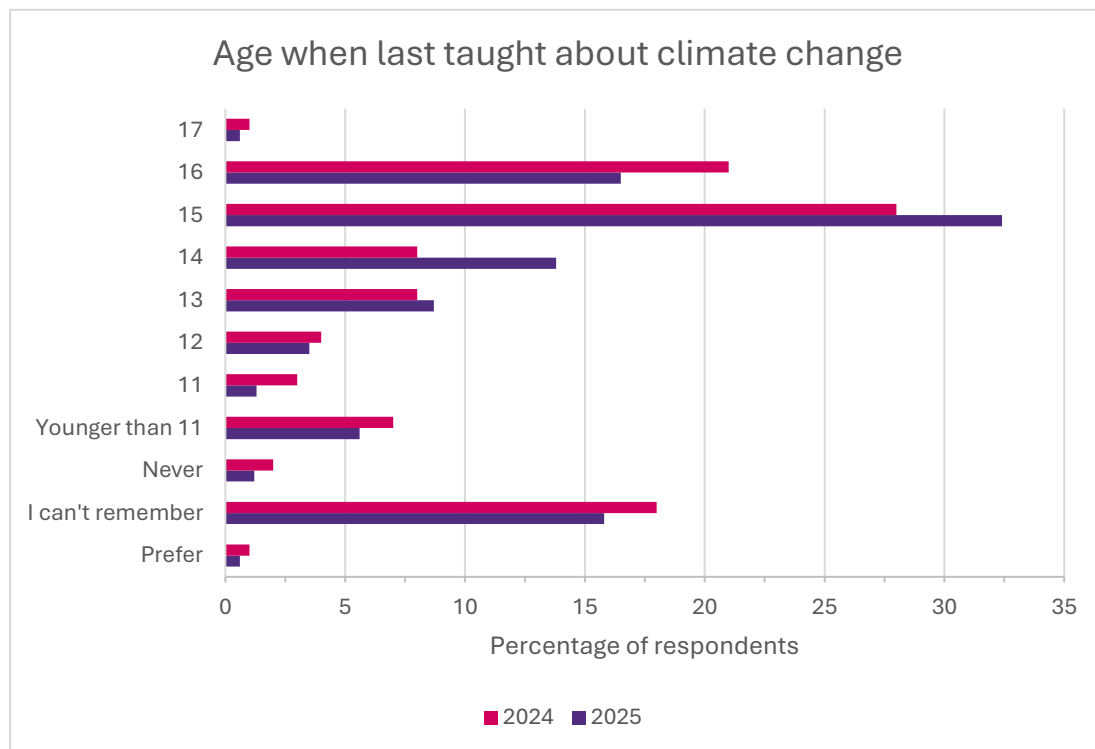
3. Baseline knowledge (core compulsory questions)

The core question have been part of the CLS since the first year in 2022. These questions are designed to capture the baseline knowledge respondents have around the subject of climate change, the relevance respondents think climate change has to their lives and to recall when climate education has featured in their school lives to date.

3.1 Learning about climate change (Core 1)

Just under half (48%) of the respondents remember learning about climate change ‘recently’, being aged 15- and 16-years-old when last taught about the subject in a class. This result matches the proportion in the same age range in the 2024 survey, which is unsurprising, given that the curriculum will not have changed for this age group in any of the Nations.

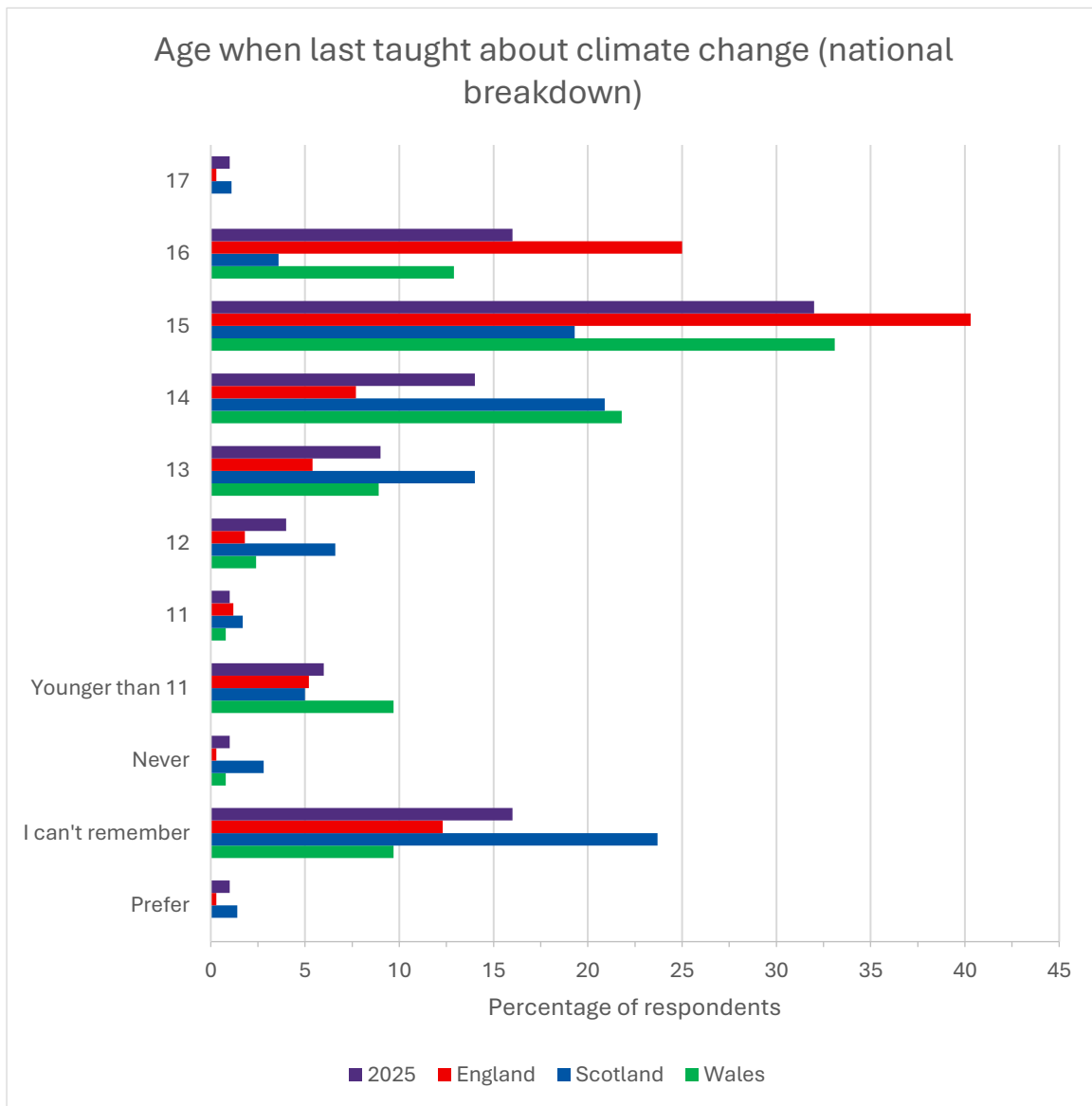
13% of all respondents remember being slightly younger, aged 14, when last taught about the subject. However, half of these respondents were Scottish and therefore this may still have been during a class in the National 5 process which features climate change connections as part of the science (separate and combined) and geography specifications. Just over one in five respondents (21%) said that their last lesson was when they were younger than 14 or that they had never been taught it and 16% could not remember what age they were, a very slight decrease in the proportion of respondents compared to 2024 (17%).



Q7. N=1082

Looking at the national breakdown for this question, England is the nation with the highest percentage of respondents having been last taught about the subject most recently, aged 15- or 16-years-old (65%), followed by Wales (46%) and then Scotland (23%). However, if we consider that National 5 students could also be 14 and 17, that value in Scotland increases to a value similar to Wales (45%).

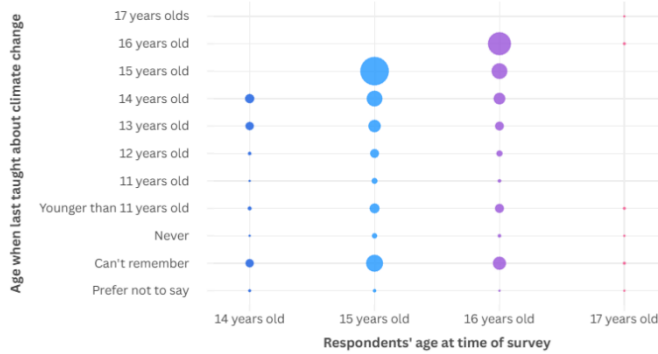
Scotland had the highest number of respondents admitting that they have never been taught about climate change at school (3%).



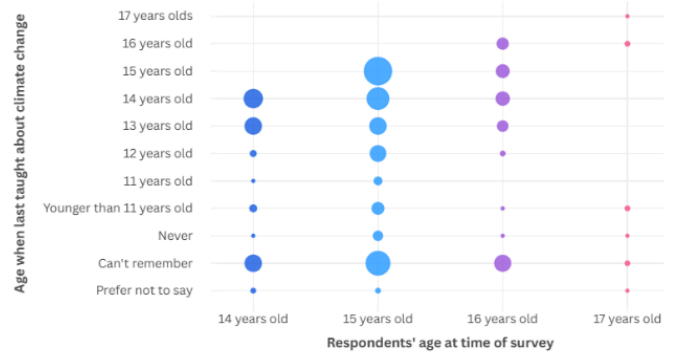
Q8. *n*(2025) = 1082, *n*(England) = 595, *n*(Scotland) = 363, *n*(Wales) = 124

Comparing the age of the respondents at the time of participation and the age in which they last recall learning about climate change, it makes it clear that the most commonly selected answer shows students remember learning about climate change in their last year, followed by last two years. This trend is especially evident among students in England, where the most frequently selected combination was that where their current age matched the age at which they last recall being taught about climate change.

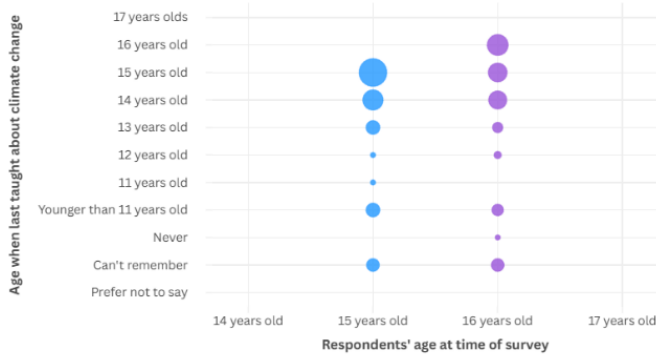
Age at point of survey and when last taught about climate change



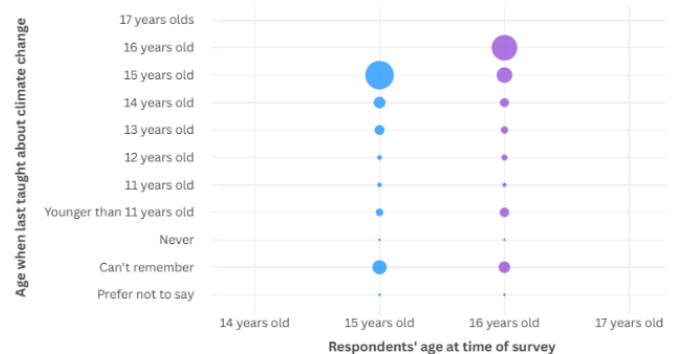
Age at point of survey and when last taught about climate change (Scotland)



Age at point of survey and when last taught about climate change (Wales)



Age at point of survey and when last taught about climate change (England)



Q3 & Q8. $n(2025) = 1082$, $n(\text{England}) = 595$, $n(\text{Scotland}) = 363$, $n(\text{Wales}) = 124$

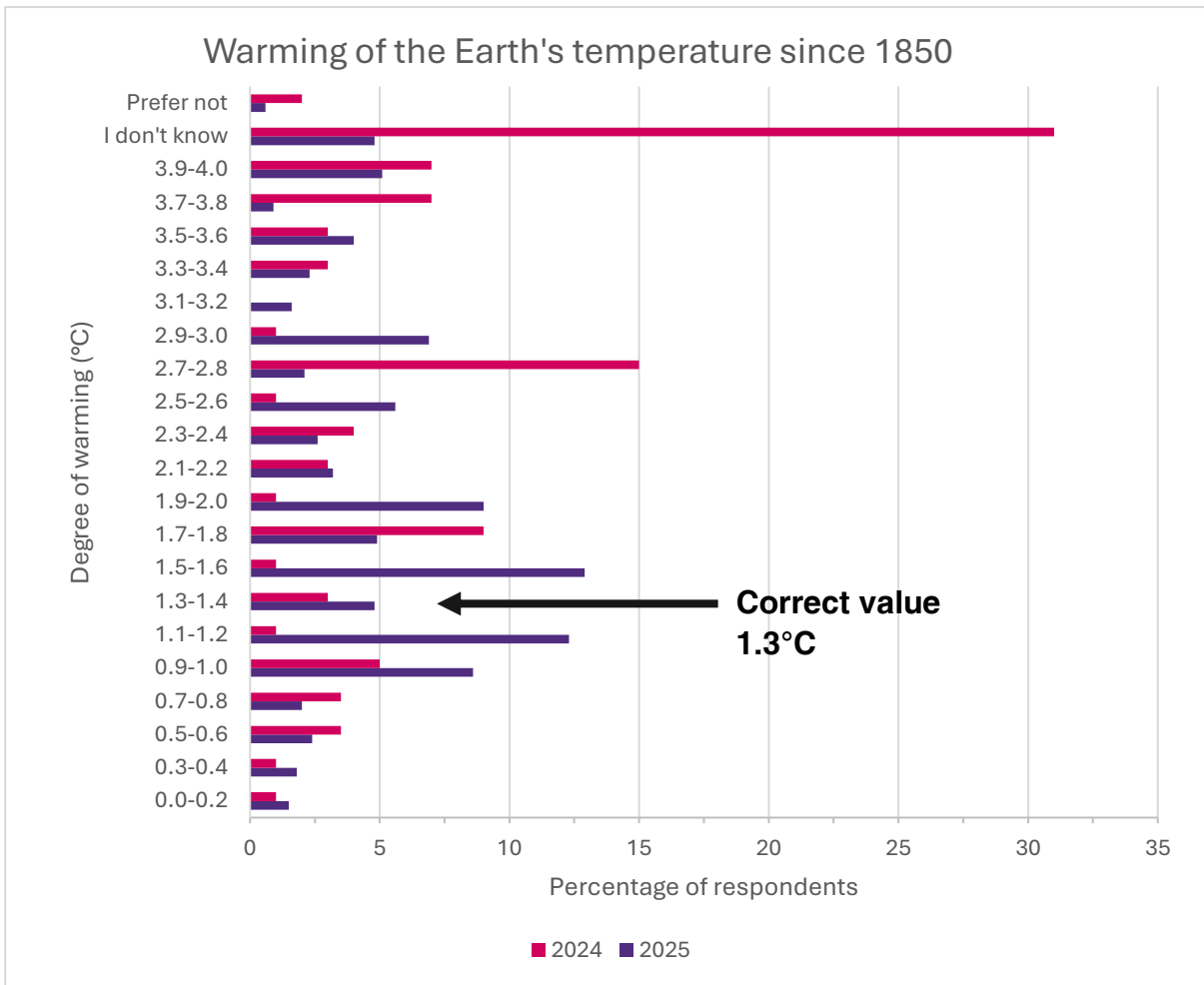
3.2 Perceived Earth temperature changes since 1850 (Core 2)

Similarly to the 2024 result, the majority of respondents either overestimated the warming or did not know (83% in 2024, 67% in 2025). Within this, there was a large reduction in the proportion that selected 'I don't know', from 31% in 2024, to 5% this year.

There was a shift in the mode, with the most popular answers being a warming of 1.5°C-1.6°C (13%) closely followed by 1.1°C-1.2°C (12%). It is important to note that in January, the first month of the survey, the World Meteorological Organisation (WMO) announced that the annual global average temperature surpassed 1.5°C for the first time⁹, and 2024 marked 1.3°C above the baseline 1850-1900 climate for the first time. It could be that these announcements, which were relatively well covered by mainstream news, could have resulted in the change in mode (which was 2.7°C -2.8°C in 2024, excluding 'I don't know').

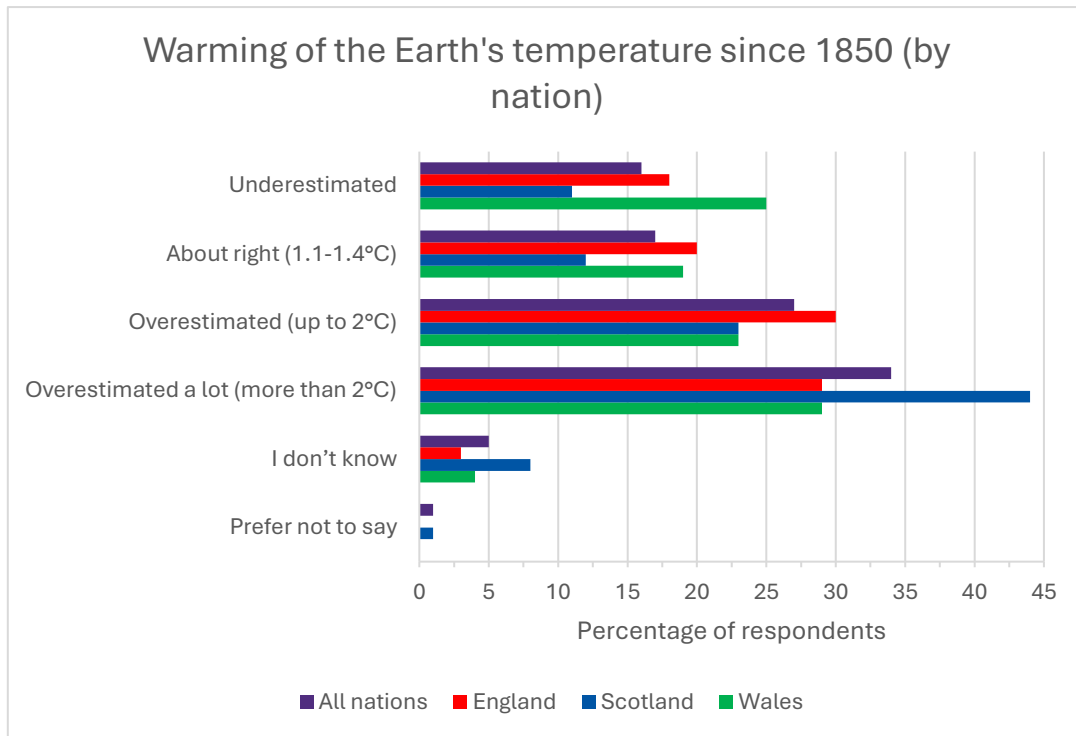
There was a significant increase in respondents underestimating the warming there has been, from 15% in 2024 to 28% in 2025. This is concerning as this may mean that respondents feel less urgency to support global action and feel less personal responsibility to contribute to mitigation or adaptation strategies.

⁹ [WMO](#), 2025



Q8. n (2025) = 1082

When looking at the national breakdown there are some differences. Scotland is the country overestimating the warming the most (67%), with the biggest proportion of respondents (44%) selecting warming greater than 2°C and also the smallest percentage (12%) of respondents who selected values around the correct value of 1.3°C. Conversely, it was Welsh respondents who underestimated the warming the most, with a quarter (25%) selecting warming of 1°C or less and the smallest proportion of respondents overestimating the warming (52%). Despite the differences, all nations show a majority of respondents overestimating the warming.



Q8. *n* (2025) = 1082, *n*(England) = 595, *n*(Scotland) = 363, *n*(Wales) = 124

3.3 Perceived contributions to global warming (Core 3)

Collectively respondents ranked the different contributions just about right (overestimating the contribution by transport a little), similar to 2024. The majority of respondents (65%) correctly identified that natural changes have had the smallest contribution to the warming seen in the last 150 years. There is also a correct consensus that industry, electricity and heat production has contributed the most to the global warming (43%). These are similar to the findings in 2024.

Together respondents have correctly ranked plastic production and waste in 4th position (30%), however transport has collectively been ranked above deforestation, agriculture and other land use changes which is incorrect. There is a general feeling of uncertainty around the comparative impacts of industry, transport and plastic. On closer inspection into the rankings of deforestation, 26%, 23%, and 23% of respondents ranked it second, third, and fourth respectively and the near-even distribution suggests no clear frontrunner, highlighting a degree of uncertainty. Over half of respondents (51%) underestimated the contribution of deforestation, agriculture and land use changes, 43% overestimated the impact of transport, and half (50%) of respondents overestimate the impact of production and management of plastic waste.

On a national level, the trends are the same with majority of respondents recognising that natural changes have had the least impact. However, the consensus over industry, electricity and heat production contribution is not as consistent in all nations. In Wales only 3 in 10 students (30%) selected it as the biggest contribution to global warming. The uncertainty in the contributions from deforestation, transport and plastic is present in the national responses. This is perhaps due to confusion between global and local contributions,

whereby transport may be a bigger contributor on a national scale in the UK, but deforestation has a larger impact across the globe.

All nations Percentages	Industry, electricity, and heat production	Deforestation, agriculture and other land use changes	Transport (cars, lorries, planes, trains, ships etc)	Production of plastic and management of plastic waste	Natural changes such as volcanoes and variations in the Sun and Earth's orbit
1 most	43	14	15	12	7
2	17	26	28	15	5
3	15	23	25	23	5
4	12	23	19	30	9
5 least	4	5	5	12	65
I don't know	9	9	9	9	9

England Percentages	Industry, electricity, and heat production	Deforestation, agriculture and other land use changes	Transport (cars, lorries, planes, trains, ships etc)	Production of plastic and management of plastic waste	Natural changes such as volcanoes and variations in the Sun and Earth's orbit
1 most	47	15	18	10	6
2	18	28	30	15	6
3	17	24	25	24	7
4	11	25	19	33	9
5 least	4	5	5	14	69
I don't know	4	4	4	4	4

Scotland Percentages	Industry, electricity, and heat production	Deforestation, agriculture and other land use changes	Transport (cars, lorries, planes, trains, ships etc)	Production of plastic and management of plastic waste	Natural changes such as volcanoes and variations in the Sun and Earth's orbit
1 most	41	14	10	12	9
2	15	25	24	16	5
3	14	22	26	20	4
4	11	18	21	27	8
5 least	5	6	5	10	60
I don't know	15	15	15	15	15

Wales Percentages	Industry, electricity, and heat production	Deforestation, agriculture and other land use changes	Transport (cars, lorries, planes, trains, ships etc)	Production of plastic and management of plastic waste	Natural changes such as volcanoes and variations in the Sun and Earth's orbit
1 most	30	14	15	20	7
2	19	23	27	13	5
3	12	20	24	25	5
4	21	22	12	22	10
5 least	4	8	8	7	59
I don't know	14	14	14	14	14

Q9. *n* (all nations) = 1064, *n*(England) = 592, *n*(Scotland) = 352, *n*(Wales) = 120

3.4 Levels of concern about climate change (Core 4)

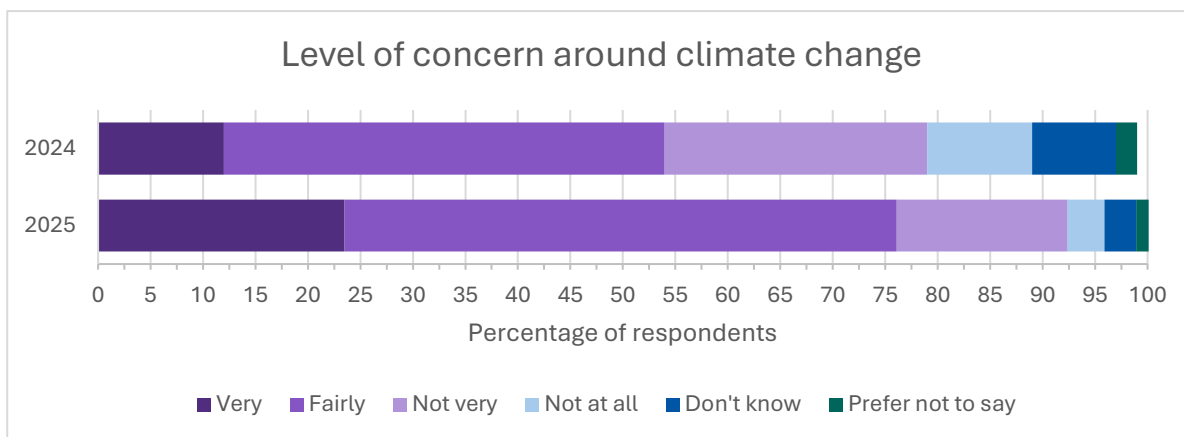
More than three quarters (76%) of the respondents indicated that they were concerned about climate change, an increase from the 49% of respondents last year. The proportion between very concerned and fairly concerned has also changed significantly. This year 23% of respondents said they are very concerned, compared to 12% in 2024. This may need to be considered when thinking how to teach the subject in a way that minimises climate anxiety and encourages a hopeful and action-lead approach.

Comparing the responses from the CLS to the latest research on climate change perceptions amongst people (older in age) in England, Scotland and Wales¹⁰ there are some slight differences. There is very similar proportion of participants who are 'very' concerned/worried about climate change in both surveys, however responses from younger people in the CLS highlight a higher level of concern overall as 53% responded that they were fairly/somewhat concerned, compared to 41% amongst older participants in the Climate Outreach survey.

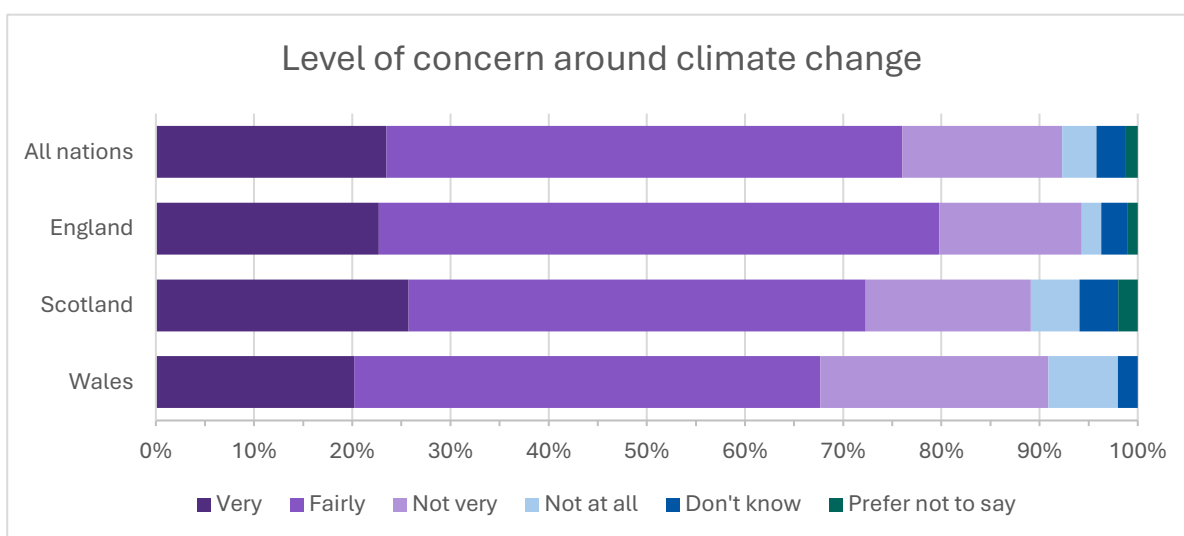
Respondents in Wales showed the least concern around climate change, with 1 in 5 (20%) being very concerned and 46% being fairly concerned and the highest proportion of respondents who were either not very (23%) or not at all concerned (7%). This aligns with Wales being the nation who underestimated the warming of the Earth the least in Q9.

This perhaps justifies including more local teaching, for example using local case studies in addition to those in other countries where the challenges are often different due to different social and economic challenges.

¹⁰ [Britain Talks Climate and Nature](#), Climate Outreach, 2025

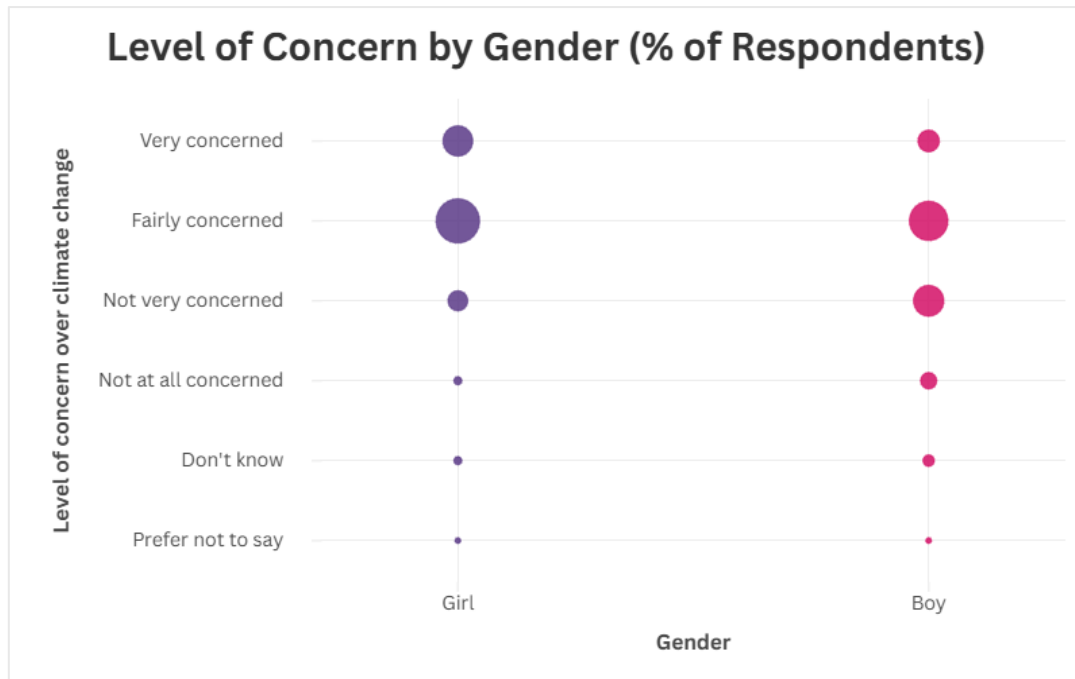


Q10. n (2025) = 1082



Q10. n (all nations) = 1082, n(England) = 595,
n(Scotland) = 363, n(Wales)=124

The responses to this question also show a slight difference between levels of concern between boys and girls, with a higher proportion of girl respondents indicating they are very or fairly concerned. There is a higher proportion of boys who are not very or not at all concerned. There are not enough respondents who said that they were non-binary or that their gender wasn't listed to be able to compare their responses.



Q9. n(Girls) = 727 n(Boys) = 313

3.5 Personal impact of climate change (Core 5)

There has been an increase in respondents who think that climate change will impact them personally in their lifetime. In 2024, just under half (49%) of the respondents thought that climate change would impact their life, whereas this increased to 66% in 2025.

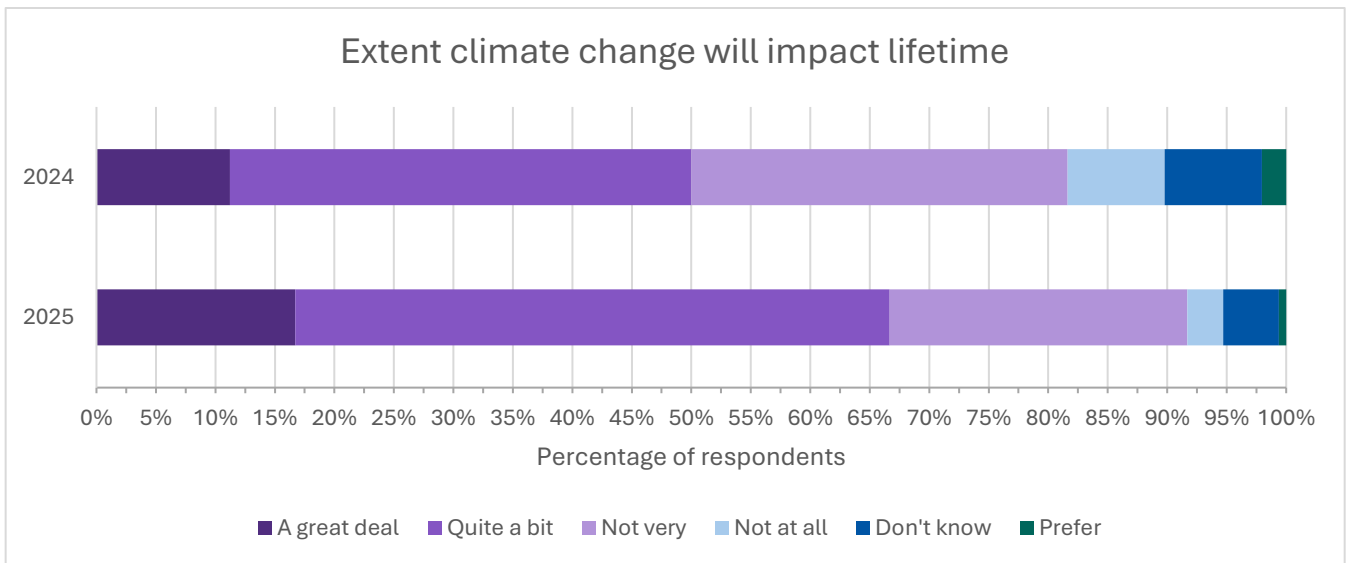
Accompanying this, there was a decrease in both respondents who said climate change would not impact them very much (25%) or not at all (3%).

Comparing this to survey data from British residents¹¹ there seems to be slightly higher awareness of the personal impact of climate change amongst the younger CLS participants, with 77% of school respondents thinking that their lives will be impacted a great deal or quite a bit by climate change compared to 57% of British residents thinking there will be a great or moderate impact on them personally. However, when the British public was asked about the impact of climate change on future generations, 85% answered that there would be a great deal or moderate impact on lives so there was an overwhelming understanding that the impact and harm on lives is getting progressively worse.

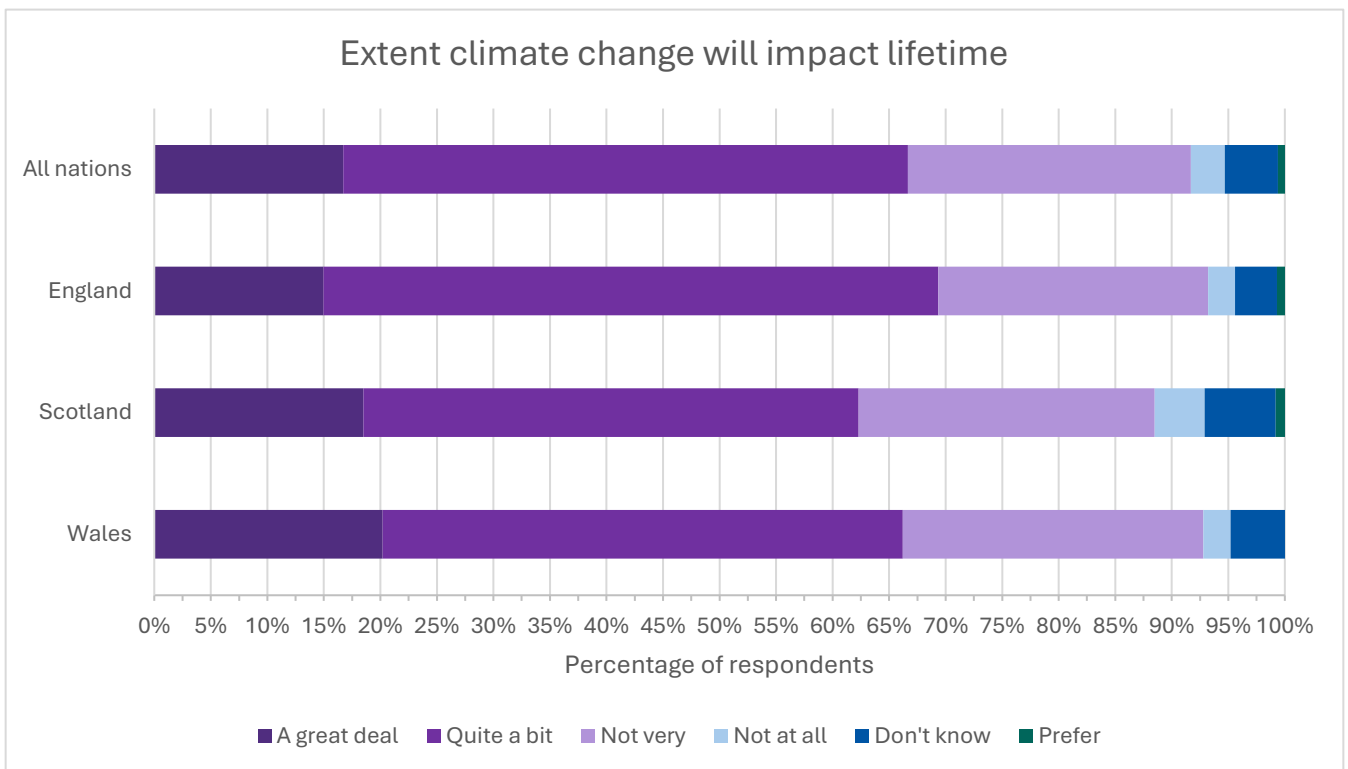
Looking at the national breakdown of the CLS data, Wales is the nation with the highest proportion of respondents (20%) who think climate change will have a great deal of impact on them in their lifetime, with the smallest proportion being from England (15%). This is surprising considering Wales was the nation that showed the least concern around climate change and underestimated the warming since 1850 the most. Scotland is the nation with the highest proportion of respondents (30%) thinking that climate change will either have not very much impact on their lifetime or no impact at all, despite overestimating the observed warming of the Earth's temperature the most of all the nations.

¹¹ [Climate Change in the British Mind](#), Yale Program on Climate Change Communication, 2025

Unlike the previous question on concern, there is no clear trend between the perception of climate change impact between boys and girls.



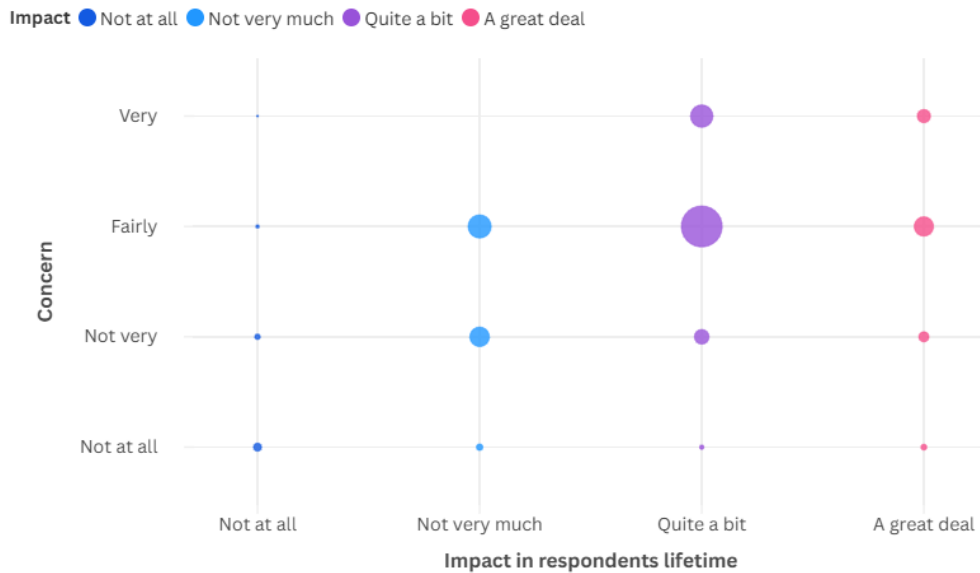
Q11. n (2025) = 1082



Q11. n (2025) = 1082, n(England) = 595,
n(Scotland) = 363, n(Wales) = 124

3.6 Personal impact of climate change versus concern

The figure below highlights that respondents who thought they would be impacted by climate change in their lifetime were more likely to have a higher level of concern. However, impact did not necessarily mean that the level of concern would be at the highest level. There are a greater proportion of respondents who think they will be impacted by climate change 'quite a bit' and are 'fairly' concerned than those who are 'very' concerned.

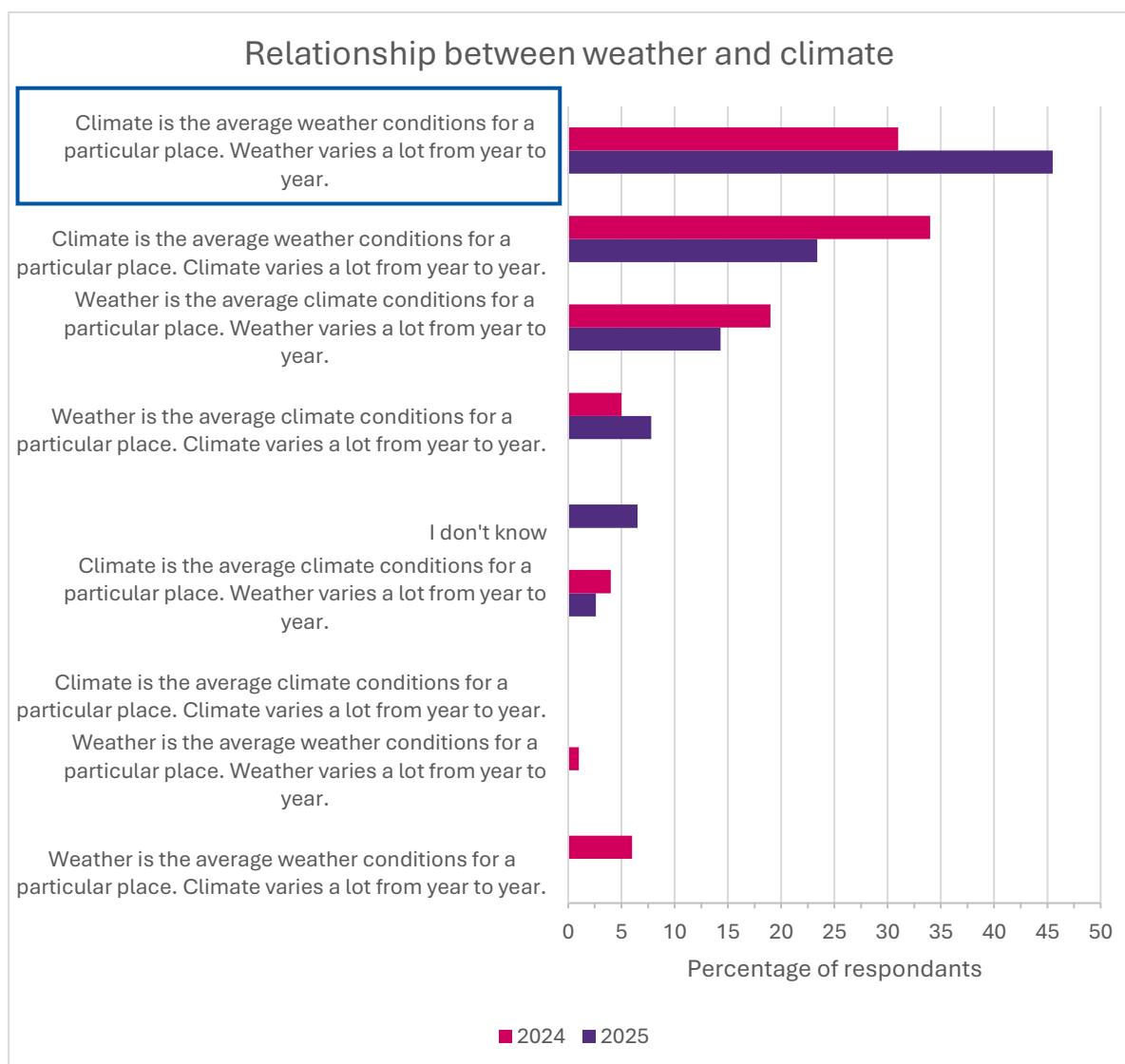


4. Causes of climate change

4.1 Relationship between weather and climate (Q54)

45% of respondents were able to correctly fill the gaps in the sentence and explain the relationship between weather and climate. This is a notable increase from last year (31%). However, it does still mean that the majority of respondents either got the combination wrong or selected 'I don't know'.

Breaking down the question into parts we see that for the first sentence, or first two blanks, just under 7 in 10 (69%) respondents got the relationship between climate and weather correct. Taking the second sentence with the last blank independently, more than 6 in 10 (62%) got the variability in the weather correct. This still highlights some uncertainty into the definitions and relationship between weather and climate.



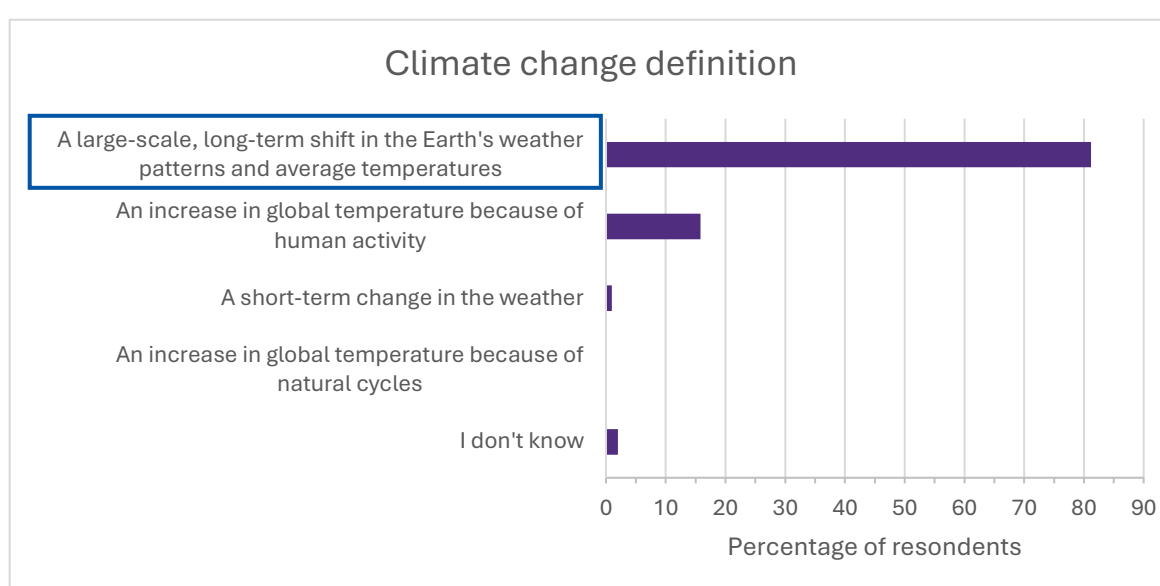
Q54. n = 77.
Boxed answer is correct

4.2 Defining climate change (Q43)

8 in 10 (82%) of the respondents were able to identify the correct definition of climate change.

The second most commonly selected answer (by 16% of respondents) was that attributing global temperature to human activity. This definition of climate change is very similar to that used by the United Nations Framework Convention on Climate Change (UNFCCC) – “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”¹²

This question highlights the importance of consistent or a universal definition of climate change and global warming both in the scientific and political areas, but also in schools across different nations, subjects and assessment authorities.



Q43. n = 101

4.3 Climate variability (Q13)

Only 12% of respondents correctly identified that large scale weather patterns are the biggest reason behind year-to-year variability, with just over three in four (79%) respondents underestimating its role. Compared to 2024 results (14% ranking this correctly), the understanding of this driver has remained about the same. This suggests that perhaps too much time is spent communication the deviation from the 'normal' (looking at the extremes), rather than looking at and understanding the natural variability of the 'normal'.

Instead, the majority of respondents (56%) identified changes to greenhouse gas concentration as the main driver of year-to-year variability. However, 1 in 5 respondents (21%) also underestimate the role this has in year-to-year variations.

Over a quarter (28%) of respondents correctly ranked changes to the Sun in third place, however over a third (31%) of respondents overestimated its impact and another third (32%) underestimated its impact.

¹² [United Nations Framework Convention on Climate Change Article 1 Definitions](#)

Although the largest percentage of students (34%) correctly identified changes to Earth's orbit have the smallest impact on year-to-year variability, most respondents (57%) ranked the impact too highly with over 1 in 10 (12%) thinking that it has the biggest impact. This highlights the lack of knowledge around natural causes of climate despite a focus on natural climate change in the geography specifications across the nations. For example, the GCSE subject content for geography in England¹³ states 'different causes, including human activity' of climate change since the start of the Quaternary period should be taught and this includes changes in the Sun and changes in the Earth's orbit. This question in particular highlights a disconnect between natural causes of climate change and timescale of change.

Percentages 2025	Large scale weather patterns (such as El Niño)	Changes in the concentration of greenhouse gases in the atmosphere	Changes in the Sun	Changes to the Earth's orbit
1 biggest	12	56	10	12
2	40	14	21	16
3	21	13	28	29
4 smallest	18	8	32	34
Don't know	9	9	9	9

Q13. n = 107

Percentages 2024	Large scale weather patterns (such as El Niño)	Changes in the concentration of greenhouse gases in the atmosphere	Changes in the Sun	Changes to the Earth's orbit
1 biggest	14	54	13	4
2	36	11	13	25
3	20	7	33	24
4 smallest	15	13	26	31

4.4 Identifying greenhouse gases (Q22)

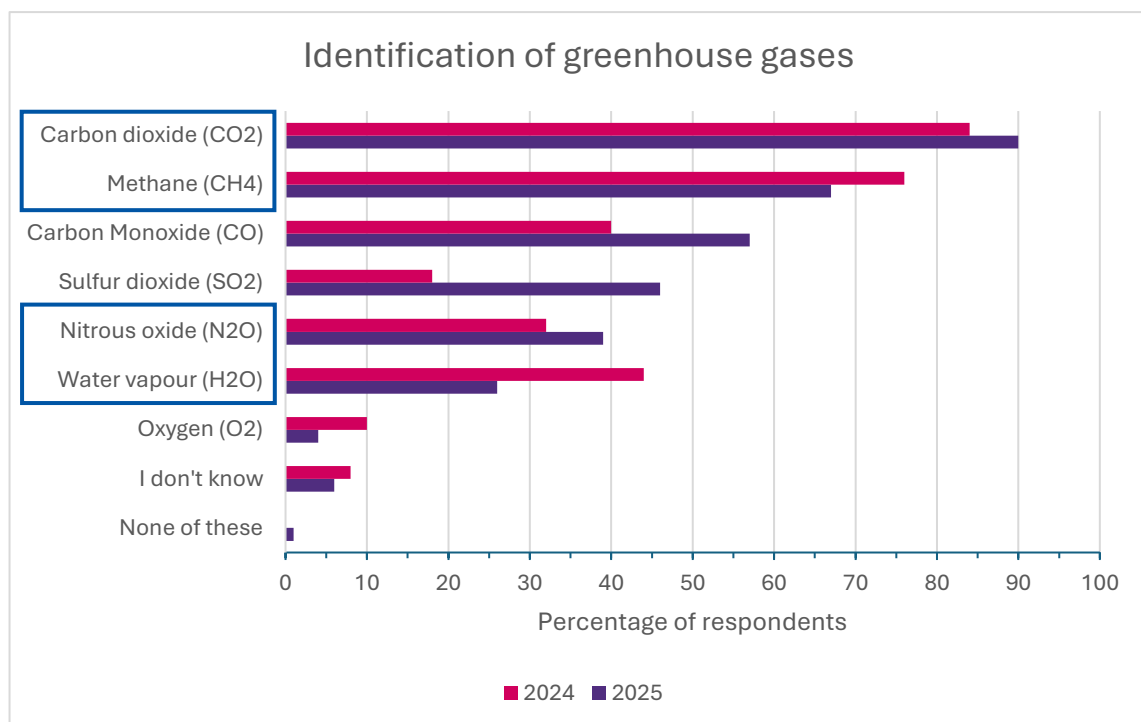
Unsurprisingly, carbon dioxide is the most identified greenhouse gas, with 9 in 10 students (90%) correctly identifying it. Although it is an increase in identification from 2024 (84%), it is still not as high as expected considering the coverage of carbon dioxide inside and outside of school. Methane was the next best identified greenhouse gas, with 67% of respondents having selected it. However, we see that this has seen a decrease in correct identification from 2024 (76%).

Nitrous oxide and water vapour are the least correctly identified greenhouse gases with about 2 in five people (39%) and 1 in 4 (26%) people selecting them respectively. In addition to this, water vapour identification has decreased significantly from 2024 (44%). Water vapour is involved in a positive feedback loop, so it is worrying that this is not recognised as a greenhouse gas. RMetS have come across popular teaching resources that support the teaching of the 'misconception' that water vapour is not a greenhouse gas.

¹³ [Geography GCSE subject content](#), Department for Education, 2014

In addition, there are two incorrectly identified greenhouse gases that are selected by more respondents than nitrous oxide and water vapour. Carbon monoxide, selected by more than half of the respondents (57%), and sulphur dioxide by more than 4 in 10 respondents (46%), are produced by combustion engines and are associated with poor air quality, and in the case of sulphur dioxide contribute to acidic rain. This may be an indication that there is confusion between air quality and greenhouse gases and other broader environmental impacts. This confusion around air quality is mirrored in Q56 where respondents identify clean air zones as climate change mitigation strategies.

Oxygen, a building block for life, has been incorrectly selected as a greenhouse gas by just over 4% of leavers, however this is a decrease from the one in ten (10%) respondents that selected it in 2024.



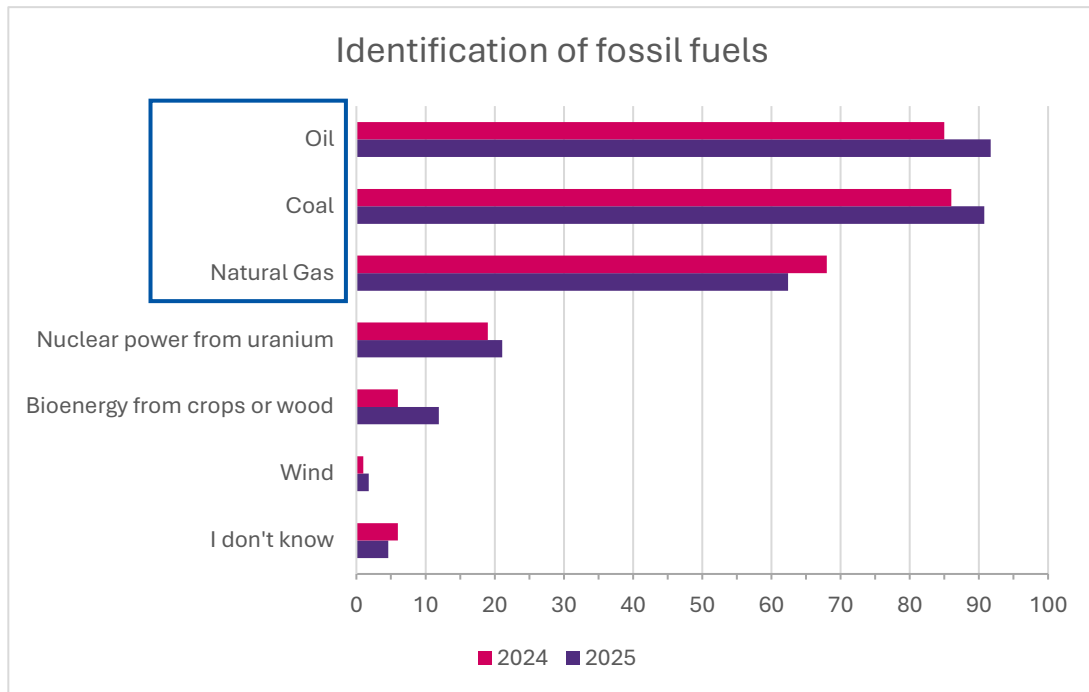
Q22. n = 104
Correct answers are boxed.

4.5 Identifying fossil fuels (Q14)

Over 9 in 10 respondents were able to correctly identify oil (92%) and coal (91%) as fossil fuels, an increase of just over 5% for both answers compared to 2024. However, natural gas was correctly selected by far fewer, with 6 in 10 (62%) selecting it. This is a decrease in awareness amongst respondents compared to 2024.

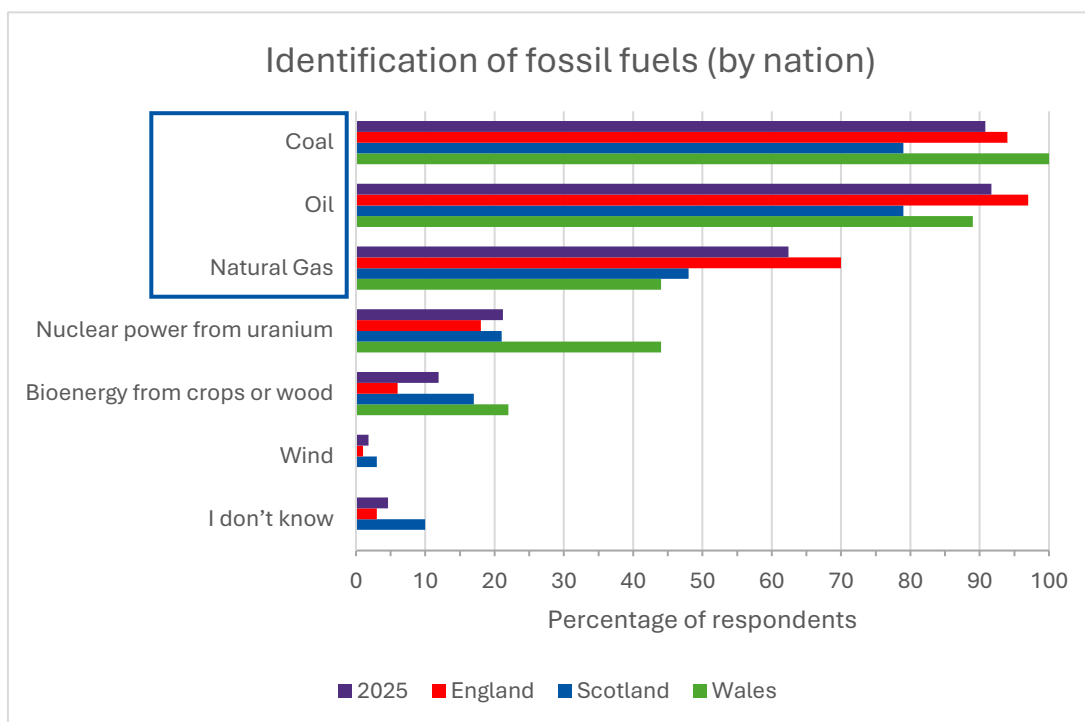
In 2024 the last UK coal powered station, Ratcliffe-on-Soar, was closed. Perhaps the focus and emphasis that has previously been on coal as a fossil fuel needs to be applied to natural gas to improve awareness of it. In addition, education around coal as an energy source needs to be adapted, for example case studies of coal powered power stations need now to be taken from other places e.g. South Africa or Germany.

Over a fifth of respondents incorrectly identified nuclear power from uranium as a fossil fuel. This implies a confusion between non-renewable energy sources and non-fossil fuel sources and also around what and how nuclear power is and works (the confusion around nuclear is emphasised in Q46 as well).



Q14. n = 109
Correct answers are boxed.

Looking deeper into the individual nations there are some notable differences, however due to small sample sizes care needs to be taken over interpreting these results. All Welsh respondents to this question correctly identified coal as a fossil fuel, however it is the nation from which the largest proportion of respondents incorrectly said nuclear power and bioenergy are fossil fuels. Surprisingly, Scottish respondents were the least likely to identify oil as a fossil fuel, despite its rich past in the oil industry, particularly offshore. Scottish respondents were also least likely to identify coal as a fossil fuel. This may reflect the lack of coal/ oil power stations in Scotland.



Q14. $n(2025) = 109$, $n(England) = 71$,
 $n(Scotland) = 29$, $n(Wales) = 9$
 Correct answers are boxed.

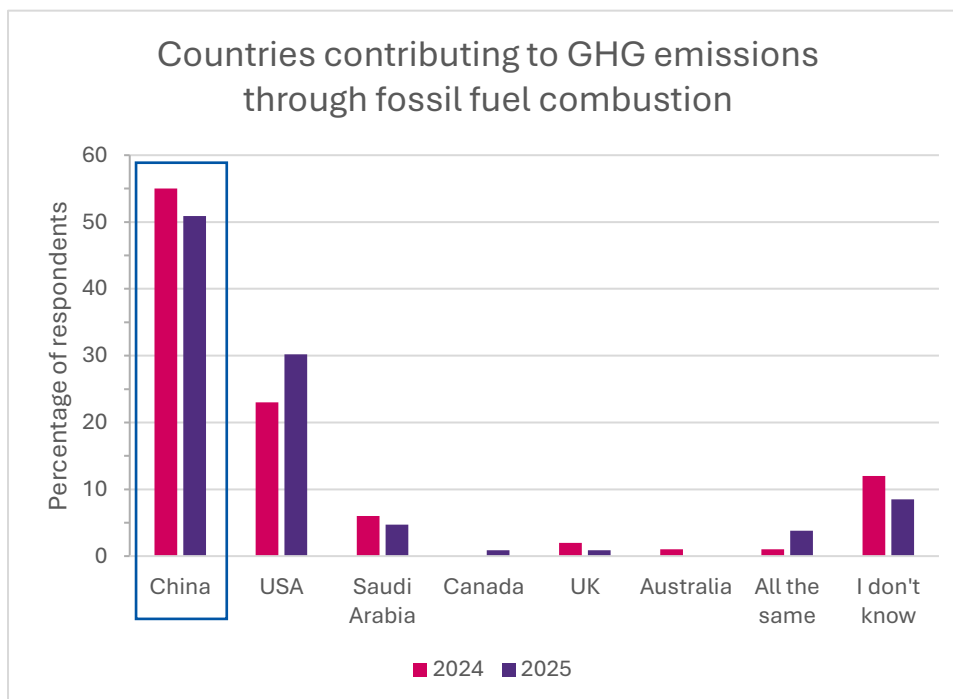
4.6 Countries contributing to greenhouse gas emissions through burning fossil fuels (Q25)

More than half (51%) the respondents correctly identified that China currently contributes the most greenhouse gases to the atmosphere annually. The second most popular answer was USA with three in ten (30%) respondents selecting it. In fact, the USA does rank second in annual emissions¹⁴. Less than 1% of answers were for the UK (which in fact ranks 19th) and 5% of answers were for Saudi Arabia (which ranks 7th).

There are some changes from 2024. There was a drop in people choosing China as the top contributor (4% less), and an increase (8% more) in those selecting USA in 2025. This may be due to the re-election of Trump at the end of 2024. His manifesto and time in power has focused on returning to the widespread use of fossil fuels with the slogan of 'drill baby, drill' being used repeatedly in the campaign. However, it could also be due to awareness of China's move to green energy, for example the explosion of Chinese electric car market.

¹⁴ [Global Carbon Atlas](#)

Surprisingly, there has been an increase in those answering that emissions from all countries are the same, from 1% in 2024 to 4% in 2025.



Q25. n(2025) = 106
Correct answer is boxed

4.7 Sources of carbon dioxide (CO₂) (Q42)

Just under 9 in 10 respondents (89%) knew that CO₂ is produced through the burning of fossil fuels. There was less awareness of other major sources. Two thirds of respondents (66%) knew deforestation contributed, 55% of respondents selected respiration, 46% of respondents identified decomposition as a source and just under 3 in 10 respondents (28%) selected cement production. Although the awareness around the cement industry is low, it is an improvement on the 11% of respondents that selected this option in 2024.

These results perhaps show some confusion with CO₂ emissions and methane (CH₄). Half of the respondents selected livestock as a source, which is not wrong, however this type of farming is more significant for contributing large amounts of methane to the atmosphere. This is again the case with rice farming. A quarter (25%) of respondents selected rice farming as a source, however it is commonly related to methane production.

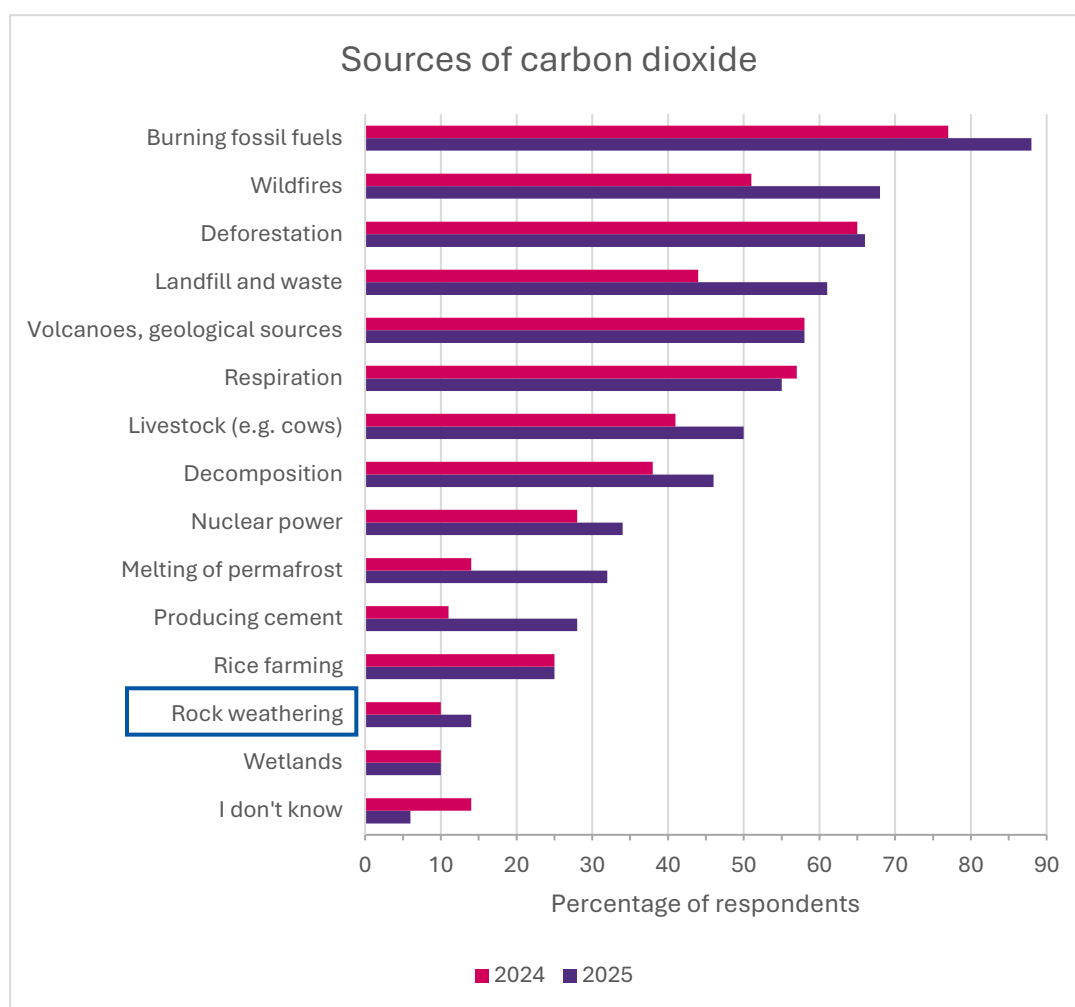
Wetlands can act as a carbon dioxide sink but can also be a source. It depends on the wetness amongst other variables. 1 in 10 (10%) knew that this was a possible source.

Some of the more minor sources, like volcanoes and wildfires were correctly identified by more respondents than some of the largest contributors, being identified by 58% and 68% of respondents respectively. The widespread selection of volcanoes perhaps again highlights the focus on natural climate change of the past in the curriculum and how this alters the perception of present-day climate change. The numbers identifying wildfires may reflect the extensive coverage of extreme weather such of wildfires across the globe.

Nuclear power has some CO₂ emissions associated with it. However, they are minor in comparison to a lot of these options. Just over a third of respondents (34%) selected nuclear power, however this may be due to a lack of understanding around nuclear power as already identified in Q14 (where over a fifth of respondents identified it as a fossil fuel).

The melting of the permafrost is another complicated answer. Just under a third of respondents (32%) identified this as a source of CO₂. Whilst this is true at present, at some point these regions may not always be a source of CO₂ and instead a greening of these regions may lead to CO₂ uptake due to photosynthesis.

Finally, rock weathering was incorrectly identified by 14% of respondents. This is in fact a sink of CO₂ and a potential carbon dioxide removal mechanism.



Q42. n(2025)= 101
Boxed answer is incorrect.

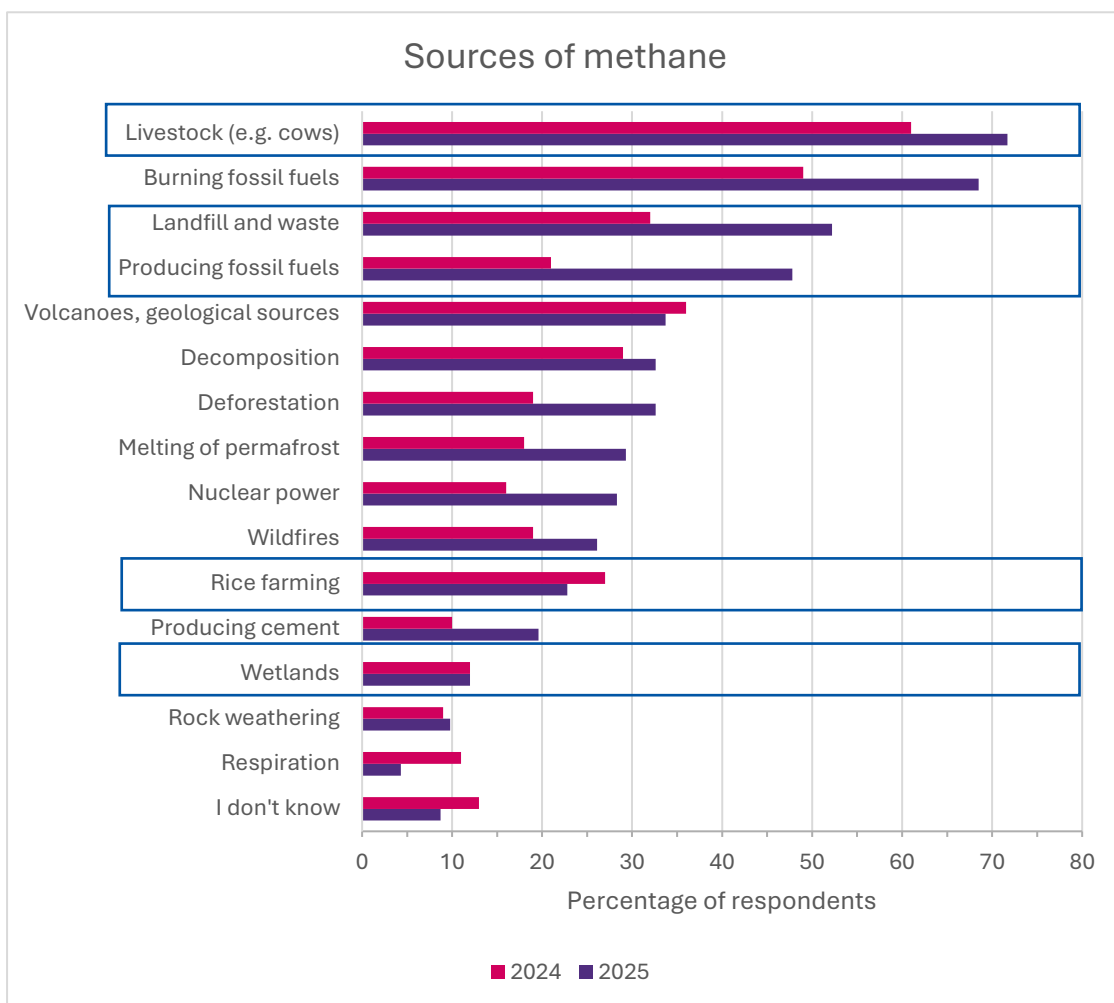
4.8 Sources of Methane (CH₄) (Q32)

7 in 10 respondents (72%) correctly identified livestock farming as one of the major contributions for methane emissions, followed by over half of respondents (52%) correctly identifying landfill and waste as a source of methane. Both were correctly selected by a larger proportion of respondents than in 2024 (62% and 32% respectively in 2024).

Producing fossil fuels was selected by just under half the respondents (48%) which is a correct answer. However, a larger proportion of respondents incorrectly answered that burning fossil fuels produces methane (69%).

The other two major sources of methane, rice farming and wetlands, were not widely selected, with over 2 in 10 people answering rice farming (23%) and 1 in 10 (12%) answering wetlands.

Almost a third of respondents incorrectly answered with decomposition (33%) and deforestation (33%) suggesting a confusion between carbon dioxide and methane. The melting permafrost ranked highly, with almost 3 in 10 people (29%) identifying it as a source of methane.



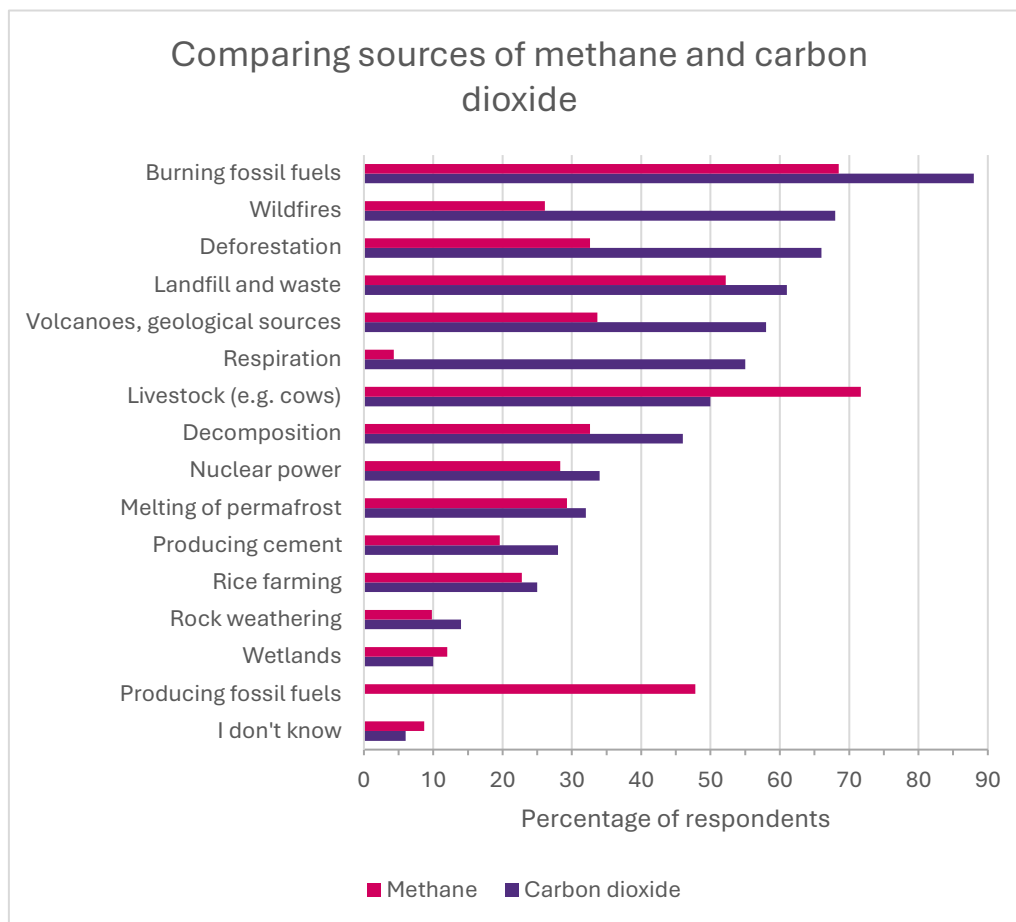
Q32. n(2025)= 92
Correct answers are boxed.

4.9 Comparing sources of carbon dioxide and methane

Overall, it would seem that respondents are more confident in their knowledge of carbon dioxide sources than methane, with the exception of livestock farming where a much larger percentage of respondents voted for it being a source of methane. There is a common misunderstanding about the greenhouse gas emissions associated with nuclear power.

There seems to be a large misunderstanding in the difference in emissions between producing and burning fossil fuels.

Respiration is the source that has the biggest difference in votes from the respondents, with over half the respondents (55%) correctly identifying it as a source of carbon dioxide and 4% incorrectly identifying it as a source of methane. However, considering the widespread teaching of respiration and its equation across the science curriculum, more respondents would have been expected to correctly identify respiration as a source of carbon dioxide, perhaps indicating low ability to be able to apply knowledge and understanding to broader, real-world contexts.



n(methane)= 92
n(carbon dioxide) = 92

4.10 Historic emissions per country (Q34)

Whilst just over a quarter of respondents correctly ranked USA (28%) and China (26%) in first and second position respectively, over half (53%) the respondents overestimated China's overall contributions of CO₂ to the atmosphere and roughly the same percentage (52%) underestimated the USA's contribution. This perhaps highlights that respondents are more knowledgeable about current emission trends, or emissions in their lifetime, and less knowledgeable around the historic usage of fossil fuels, land use changes and forestry. This lack of awareness of historic emissions can sometimes result in people incorrectly putting pressure on countries to contribute to mitigation and adaptation processes when in fact they have had a far smaller cumulative impact on GHG concentrations and therefore a smaller contribution to climate change – this touches on the issue of climate justice.

Brazil was the country most incorrectly ranked by participants with only 17% placing it correctly. 6 in 10 respondents (60%) underestimated the contributions Brazil has had to overall emissions, perhaps highlighting that respondents are focusing on the burning of fossil fuels in the question, rather than considering the land use change and forestry.

Russia, with emissions ranking it third, was the most correctly ranked (30%) country however was still underestimated by over a half (53%) of respondents.

Over half (54%) of respondents overestimated the amount of CO₂ the UK has contributed. This could be a combination of overestimating the size and therefore overall emissions of our country and supports later responses to Q46 and Q57 which highlight the lack of knowledge around the advancements the UK has made to reduce emissions through improving our reliance on renewable energy.

Saudi Arabia, ranked the lowest for its emission in this group, was correctly ranked by just over one fifth of respondents (23%), however more than more than two thirds (70%) of respondents overestimated the emissions.

Percentages	USA	China	Russia	Brazil	UK	Saudi Arabia
1 - Highest	28	53	4	2	1	4
2	52	26	6	4	1	4
3	8	11	30	10	26	9
4	2	1	21	17	26	27
5	2	0	18	23	24	26
6 - lowest	1	2	14	37	16	23

Q34. n(2025)= 90

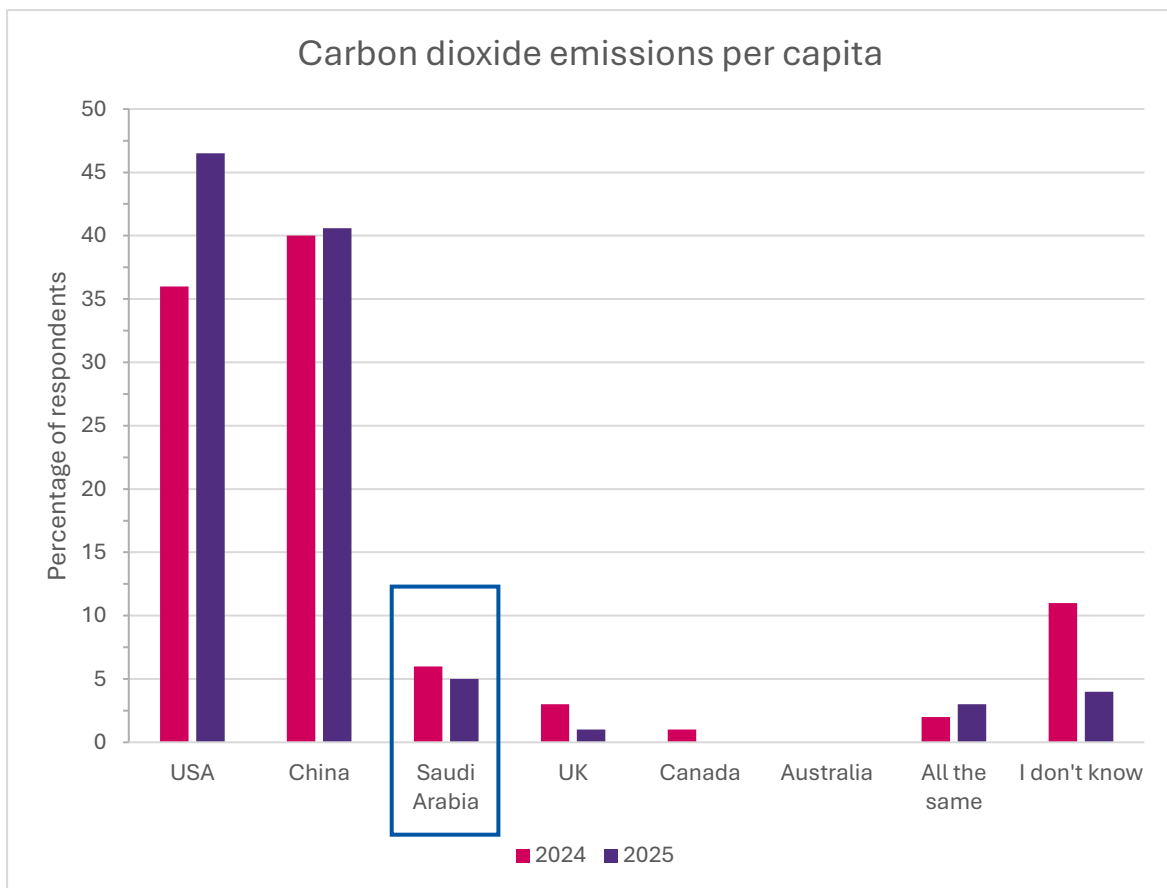
4.11 Emissions of carbon dioxide per capita (Q44)

Only 5% of respondents correctly answered this question by answering with Saudi Arabia, which emits 20 tCO₂/capita¹⁴. Instead, more than two fifths of respondents selected China (41%), which emits only 8.3 tCO₂/capita and ranks 30th, and USA (47%) which emits 14 tCO₂/capita and ranks 12th. This perhaps highlights the misunderstanding in per capita emissions compared to overall country contributions.

Saudi Arabia is not covered widely in school curriculum so its role as an oil state and its population size, particularly in comparison to China and USA, are likely unknown.

No one voted for Canada (14 tCO₂/capita, ranked 13th) or Australia (15 tCO₂/capita, ranked 11th), however 1% voted for the UK (4.5 tCO₂/capita, ranked 72nd) and 3% of respondents voted that the emissions per capita were all the same.

Again, misunderstandings here may relate to issues of climate justice.



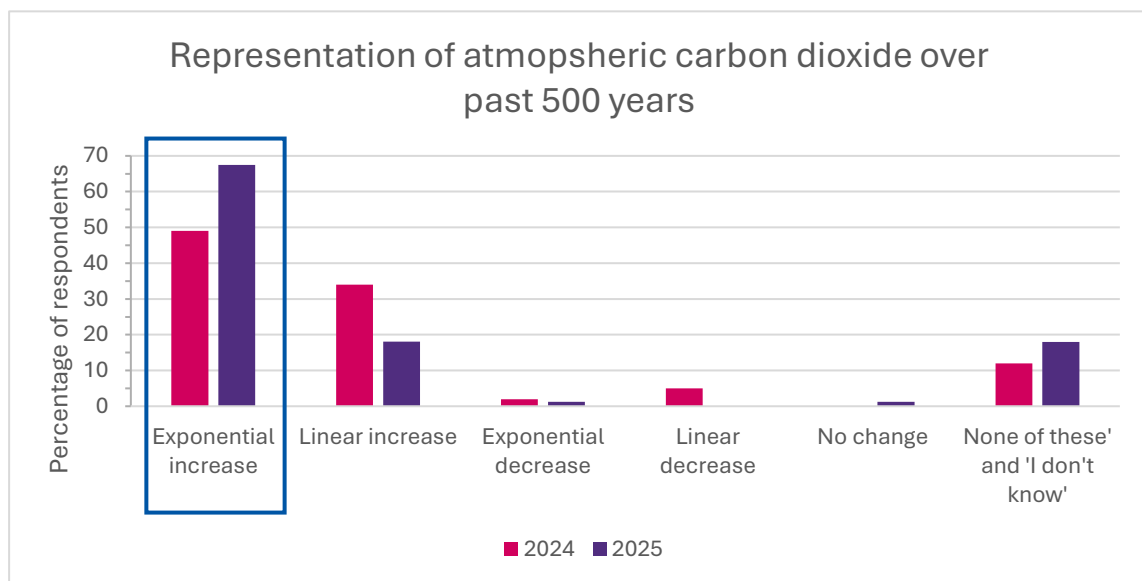
Q44. n(2025)= 101
Correct answer is boxed

4.12 Visual understanding of 500 years of atmospheric carbon dioxide changes (Q52)

Over two thirds of respondents (68%) correctly identified the exponential increase in atmospheric CO₂. About 85% of respondents identified an increasing trend, with 18% incorrectly identifying a linear increase.

This is an improvement on the 2024 responses, in which of the 83% who identified an increasing trend, less than half of the respondents (49%) identified the exponential trend.

Conversely, there is a drop in number of people identifying a decreasing trend, linear or exponential, in CO₂ levels, from 7% to 1%.



Q52. n(2025)= 83
Correct answer is boxed

4.13 Human contribution to the increase in global temperatures (Q12)

“Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming.”

“The *likely* range of human-induced warming in global-mean surface air temperature (GSAT) in 2010–2019 relative to 1850–1900 is 0.8°C–1.3°C, encompassing the observed warming of 0.9°C–1.2°C, while the change attributable to natural forcings is only –0.1°C to +0.1°C.”

These statement from the latest IPCC Assessment, AR6¹⁵, indicate that only 0.1°C of the temperature changes have come about through natural forcing and the rest can be attributed to human activity.

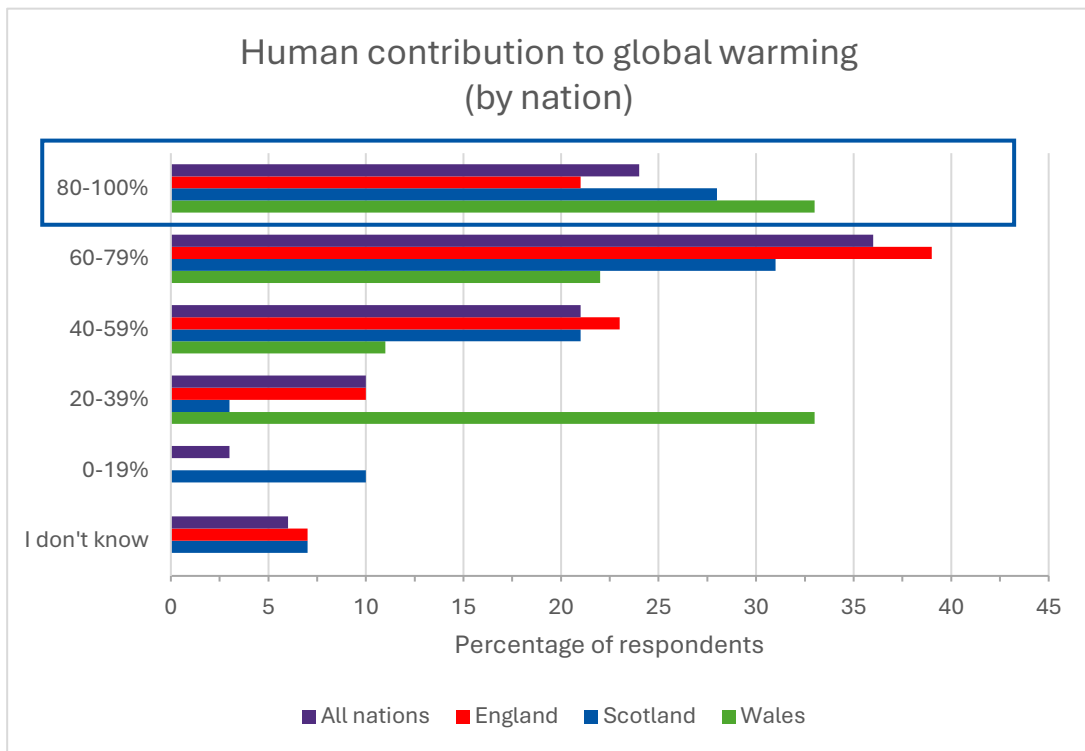
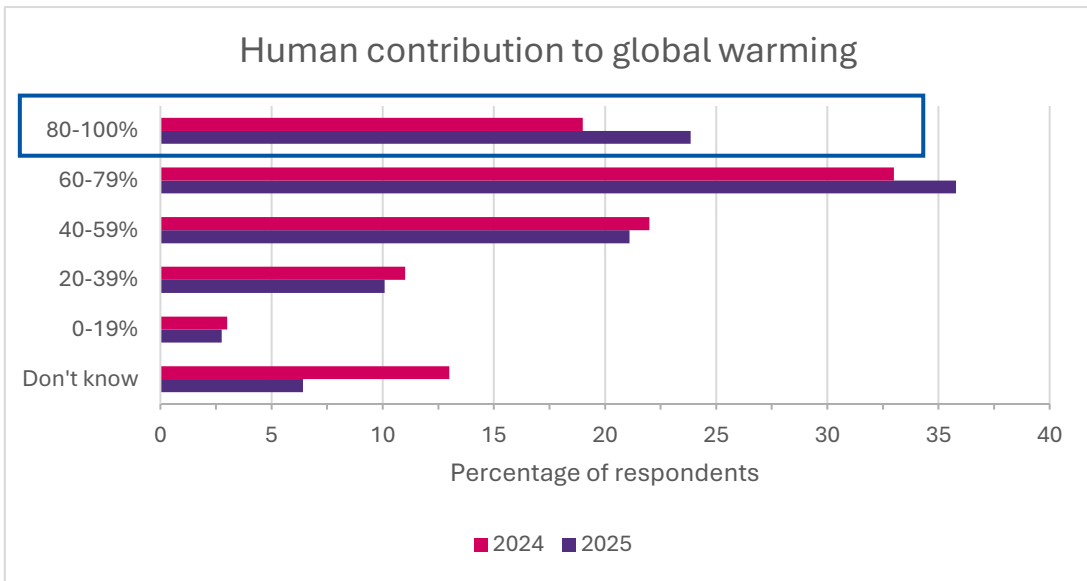
¹⁵ [Sixth Assessment Report](#), IPCC, 2021

With this in mind, the majority of respondents incorrectly answered this question with 7 in 10 respondents (70%) underestimating human contributions. Just under a quarter (24%) of respondents however correctly identified that 80-100% of warming is caused by humans.

Despite the majority of respondents still being wrong, the proportion of correct answers is a small increase on last year, when just under 2 in 10 respondents (19%) correctly identified the proportion.

This perhaps is a consequence of the communications that 2024 was the hottest year to date, and an increase in attribution studies in the media, particularly following extreme weather events.

Within the limitations of small numbers, the data appears to show poorest understanding of the contribution of human activities to climate change in England, with only 21% of respondents correctly selecting the 80-100% option, and more than 7 in 10 (72%) underestimating human contribution to global warming. This may again link to the necessity to cover natural climate change stated in the geography curriculum¹³.



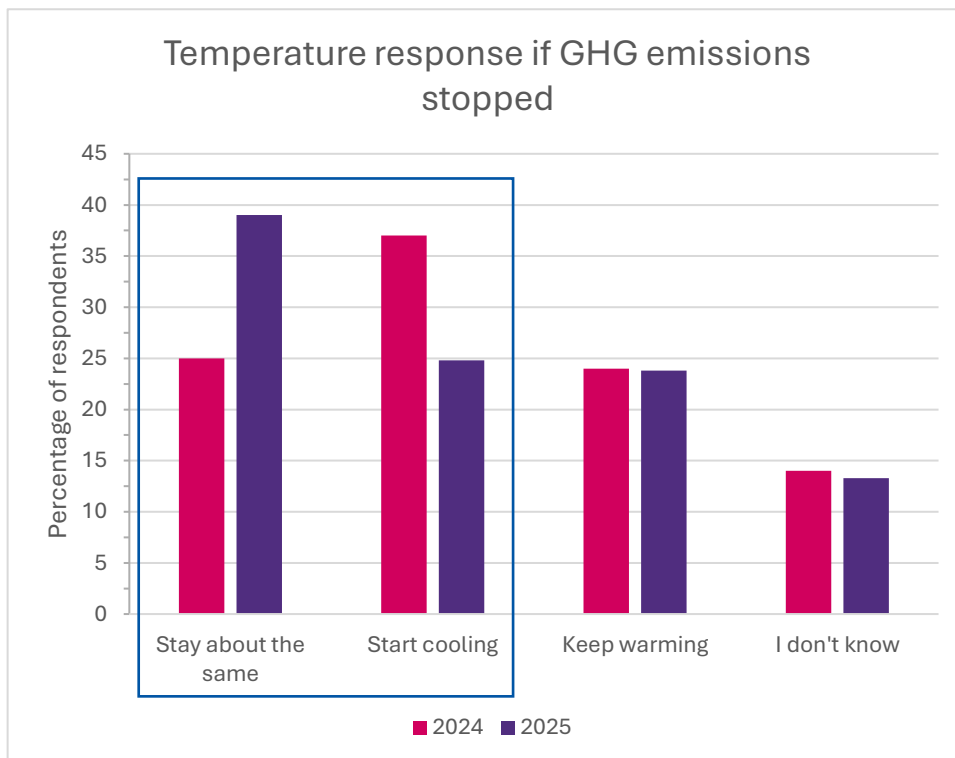
n(2025) = 109, n(England) = 71, n(Scotland) = 29, n(Wales) = 9
Correct answer is boxed

4.14 Impact of stopping greenhouse gas emissions (Q23)

There is uncertainty amongst scientists as to the exact impact of stopping all emissions, however it is thought that temperatures would stabilise ('stay about the same') or slightly cool¹⁶.

With this in mind, almost a quarter (24%) of respondents indicated that the climate would keep warming, and a further 13% didn't know the answer, perhaps highlighting a lack of hope and awareness of the possibilities if humans act and work towards net-zero or zero emissions.

Just over 6 in 10 respondents (64%) identified one of the two possible correct answers, with a larger proportion selecting 'stay about the same' (39%) than 'start cooling' (24%). This survey saw less people select 'start cooling' than in 2024 (37%).



Q23. n(2025)= 105
Correct answers are boxed

4.12 Understanding of factors impacting Earth's average temperature (Q53)

This question does not have a timescale on it and the possible answers are qualitative, overall making this question subjective. However, the phases of the moon and earthquakes do not have an impact on the Earth's temperature.

95% of respondents identified that GHGs do have an impact on the average temperature of the world, with a large majority of those (87%) ranking that impact as 'a lot'. This is as small increase on the 92% of those who noted GHGs have an impact in 2024.

The other answers of volcanic eruptions and sunspots were selected by the majority of students, with 8 in 10 respondents (81%) select 'a lot' or 'a little' for volcanic eruptions and 63% doing so for sunspots, with 'a little' being more frequently chosen than a 'lot' (perhaps

¹⁶ [M.T. Dvorak et al. 2022](#)

indicating that respondents are answering this with current climate change in mind). There was a notably larger proportion of respondents from England indicating that sunspots impact the temperature 'a lot' compared to the proportion amongst all nations with almost a quarter of respondents (24%) selecting it. This natural cause of climate change is covered in the Key Stage 4 Geography curriculum in England but has a relatively small impact on the solar constant with a change of less than 0.1% between the maximum and minimum phase of the 11 year cycle¹⁷.

Although the majority of respondents (53%) correctly identified that the phases of the moon did not affect the temperature of the Earth, more than 3 in 10 respondents (31%) answered by indicating the moon does impact the average temperature of the Earth.

Earthquakes were known to have no impact on global temperatures by 46% of respondents, but there were more respondents (48%) that thought that they did have an impact. In fact, both phases of the moon and earthquakes saw an increase in respondents who thought they had an impact on global temperatures compared to 2024.

2025 Percentages	A lot	A little	Not at all	I don't know
Greenhouse gases in the atmosphere	87	8	2	2
Earthquakes	7	41	46	6
Sunspots	18	46	10	27
Volcanic eruptions	21	60	13	6
The phases of the moon	5	26	53	16

Q53. n(2025)= 105
Accepted answers are shaded.

2024 percentages	A lot	A little	Not at all	I don't know
Greenhouse gases in the atmosphere	77	15	1	8
Earthquakes	3	32	44	21
Sunspots	16	50	10	23
Volcanic eruptions	25	49	7	18
The phases of the moon	5	15	43	36

4.13 Factors affecting the average temperature of the Earth (Q24)

Similarly to the question above, there is limited information in the question and no quantitative answers and therefore is another subjective question. All 4 answers can affect the average temperature of the Earth, so in this case 'a lot' and 'a little' are correct answers.

¹⁷ [NOAA Climate.gov](https://www.noaa.gov), 2025

The majority of school respondents answered correctly, with 57% respondents identifying 'how light or dark coloured the Earth's surface is', otherwise known as the albedo of the Earth's surface, has an impact on global temperature, 79% identified cloud cover, 75% identified dust in the atmosphere and finally the Earth's orbit 74%. Of all these, changes to the Earth's orbit had the largest and the only majority vote of respondents (51%) ranking its impact as 'a lot'. English responses ranked the effect of Earth's orbit higher than the all nations response with almost 3 in 5 respondents (58%) indicating that these changes affect the temperature 'a lot' perhaps highlighting the teaching time devoted to the Milankovitch cycles in the geography curriculum in England.

The trend is not dissimilar from that which can be identified in 2024 results. The largest difference is that in the cloud cover and dust in the atmosphere, where there has been an increase in 12.3% in those who think cloud has an impact (and a reduction in 9.3% in those that don't think it has any impact) and an increase in 20.5% in those who think dust has an impact (and a 14.5% decrease in those that don't think this has an impact) since 2024.

2025 Percentages	A lot	A little	Not at all	I don't know
How light or dark coloured the Earth's surface is	16	41	15	28
How much cloud there is	38	41	6	16
How much dust there is in the atmosphere	39	36	9	17
Changes in the Earth's orbit around the Sun	51	23	10	16

Q24. n(2025)= 106

Accepted answers are shaded green.

2024 Percentages	A lot	A little	Not at all	I don't know
How light or dark coloured the Earth's surface is	20	38	16	26
How much cloud there is	17	49	15	18
How much dust there is in the atmosphere	29	25	23	23
Changes in the Earth's orbit around the Sun	53	17	6	25

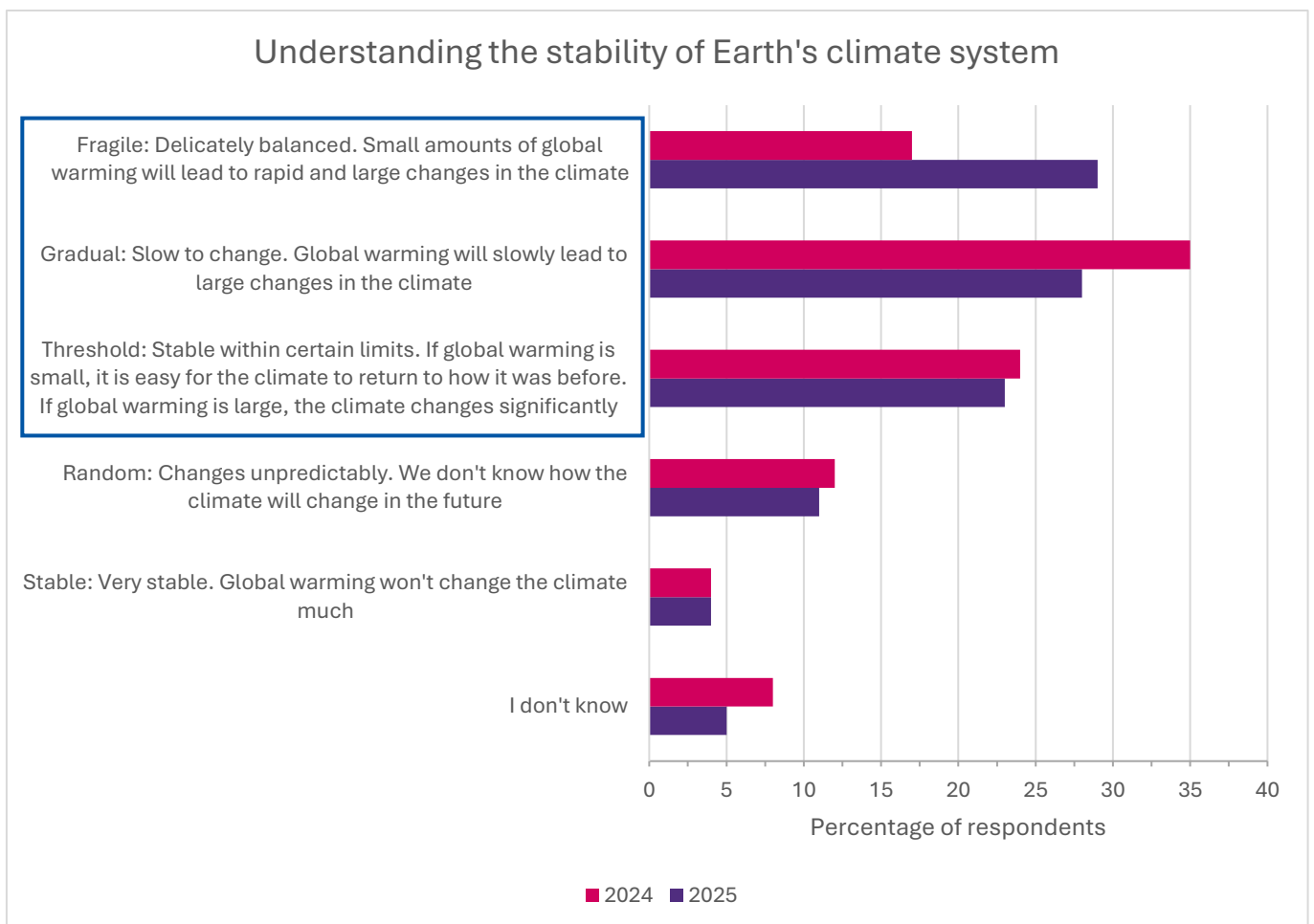
5. Evidence and impacts of climate change

5.1 Understanding the Earth's climate (Q61)

This question does not have an exact correct answer but has two answers that are incorrect.

The results this year show that 8 out of 10 (80%) respondents avoided the incorrect answers, with the most popular answer being fragile (29%), closely followed by gradual (28%) and then threshold (23%). Of the 2 incorrect answers, 'random' was more commonly selected by respondents (11%) than stable (4%).

This order has changed a little from 2024, where fragile was the least popular answer selected out of the 3 accepted 'correct' answers and gradual was the most commonly selected answer. This perhaps indicates that respondents are becoming aware of the increasing rate of global temperature and climate change and may indicate an increasing level of climate anxiety.



Q61. n(2025)= 100
Accepted answers are boxed.

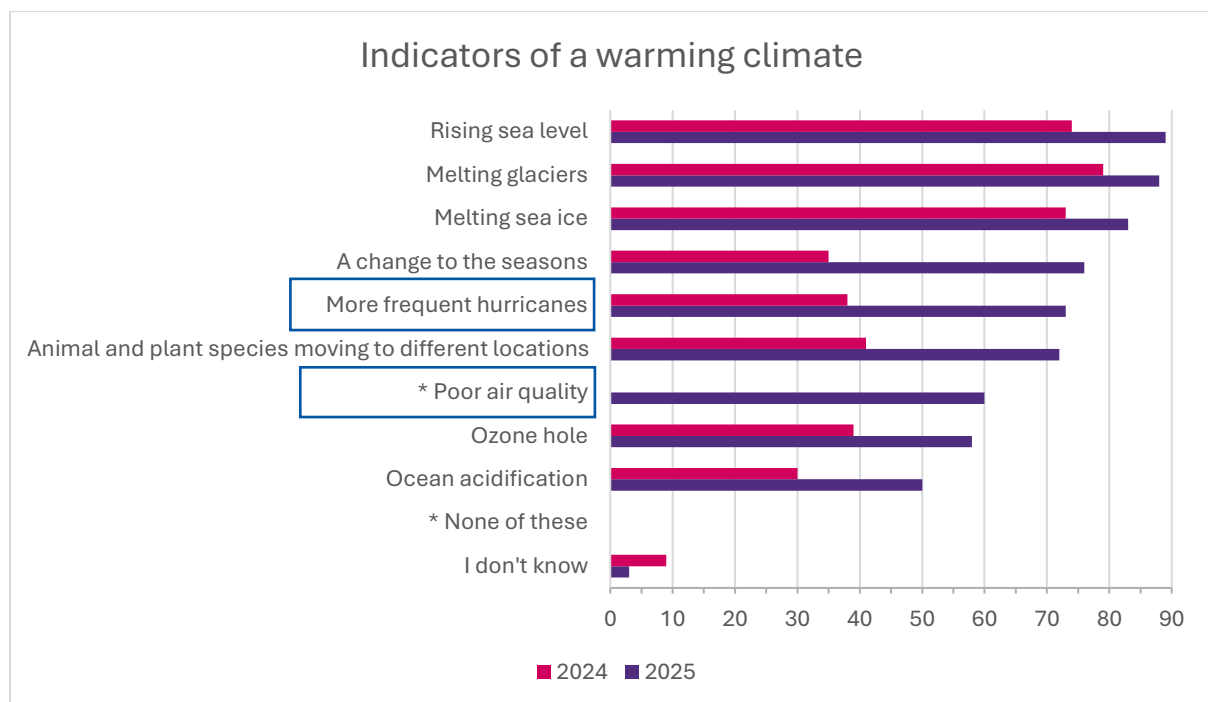
5.2 Indicators of a warming climate (Q45)

There is an increase in awareness of all the correct impacts of a warming climate compared to 2024. Over 8 in 10 respondents correctly identified rising sea levels (89%), melting glaciers (88%) and sea ice (83%) in this year's survey. Over three quarters of respondents knew a change to the seasons was an impact (76%), followed by animal and plants moving to different locations (73%). Only half correctly identified ocean acidification (50%) as an indicator of a warming climate.

58% suggested that the ozone hole was an impact of climate change. Whilst global warming is delaying the recovery of stratospheric ozone, we suspect that many of these responses are a 'false positive', indicative of widespread confusion between the causes of climate change and ozone loss.

The two incorrect answers were selected by the majority of respondents. Over 7 in 10 respondents (73%) incorrectly identified that hurricanes are becoming more frequent, something RMetS has identified as a widespread misconception in education and assessment resources.

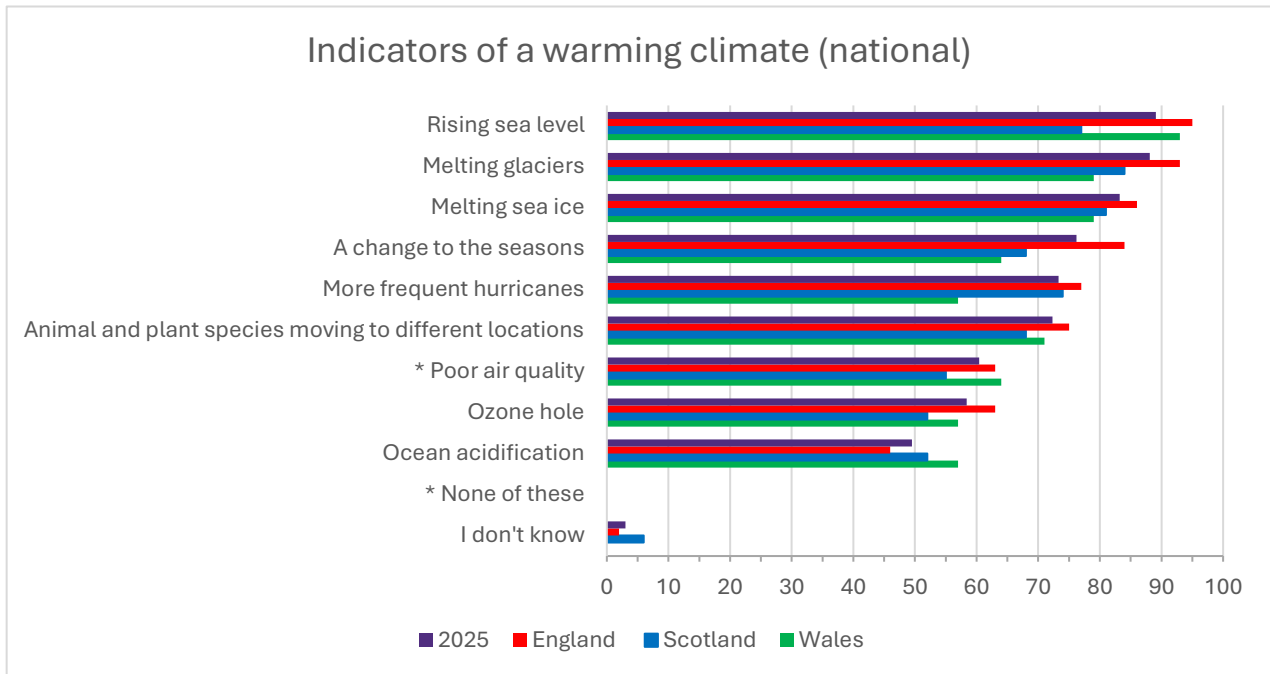
Poor air quality was an option added to this year's survey. The 6 in 10 (60%) people who incorrectly chose it highlight the popular but misplaced conflation of poor air quality/ air pollution and global warming/ climate change/ greenhouse gases.



Q61. n(2025)= 101
 Incorrect answers are boxed.
 Newly added options with *

If we look at a national breakdown, there are some notable differences. Firstly, a smaller proportion of students identify changes to sea level as an indicator of climate change in Scotland. Scotland also had a smaller proportion of respondents incorrectly identifying a link between a warming climate and air quality. English responses are notably different for a number of indicators. They were noticeably more aware of the changing seasons (84% of English respondents got this correct), however they were least aware of ocean acidification

as an indicator of a warming climate. This is unsurprising as ocean acidification is often left out of assessment material, with it very rarely being listed as a correct answer for a question asking about impact of global warming/climate change. Ocean acidification is an example of a climate concept that can be taught through more than one subject, for example in science and geography.

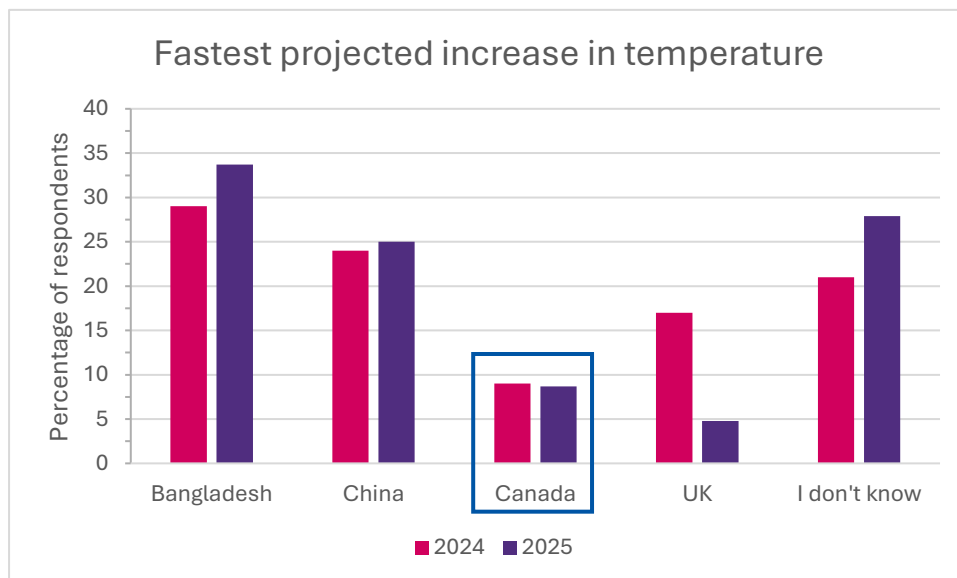


5.3 Future temperature projections (Q28)

This question was poorly answered, as it was in 2024.

Only 9% of the respondents answered correctly by identifying that Canada's temperatures are expected to increase the most. A quarter of respondents (25%) incorrectly selected China and a third (34%) of respondents selected Bangladesh. This perhaps suggests a preference to teaching global warming/ climate change whilst looking at warmer climates, identifying extremes and changes seen in these locations e.g. heatwaves, changes to the monsoon etc., and a lack of focus on the cooler climates. Studying Canada, for example, would also involve looking at countries of higher development and smaller/less concentrated populations facing different impacts of climate change.

It is positive to see a decrease of 12% in respondents answering with the UK, however there is an increase in respondents (7%) admitting they do not know the answer to the question. It is important to note that the 'I don't know' answers were the second most chosen answer behind Bangladesh.



Q28. n(2025)= 106
Correct answer is boxed.

5.4 Countries most vulnerable to climate change (Q51)

This was another poorly answered question, with only just over a quarter of respondents (27%) correctly answering that Sudan is most vulnerable.

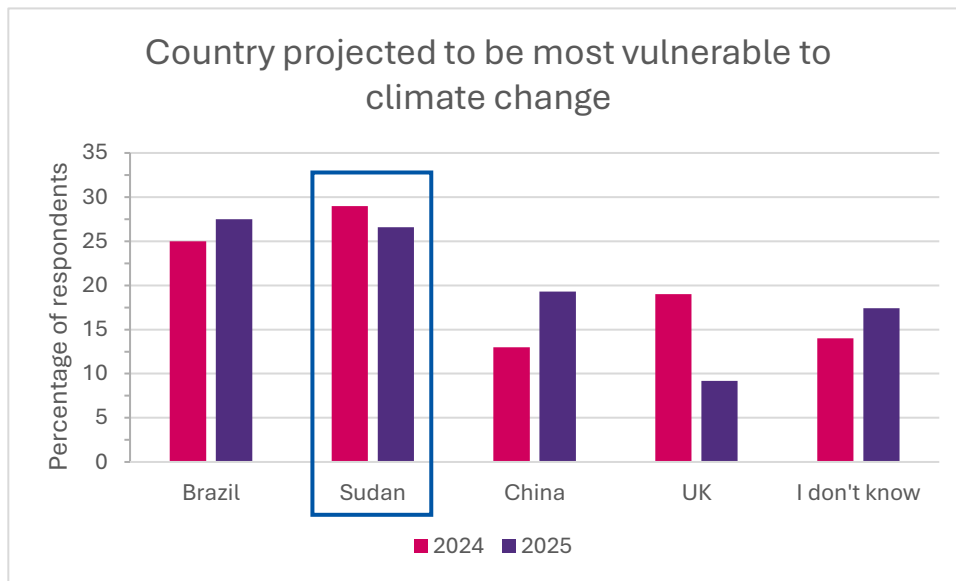
However, Brazil was incorrectly chosen by more respondents (28%). China was the answer for almost 1 in 5 respondents (19%) and the UK was selected by just under 1 in 10 respondents (9%). 'I don't know' was selected by 17% of respondents.

This is different from 2024 where the mode was the correct answer, whereas the modal answer was Brazil this year. There is a significant increase in those answering China (6%) and a decrease in the UK (10%).

Are people confusing cause and impact here - are people confusing the vast deforestation in Brazil with the impact and therefore vulnerability? If so, this again relates to issues of climate

justice and the inequities between the nations who have caused or will suffer most from the consequences of climate change. Or, similarly to Q28, is this because impact and hazards are looked in more detail in specific countries. For example, the SQA Geography National 5 specification exemplifies sea level rise in Bangladesh, the Florida Keys and the Great Barrier Reef, but there is no mention of looking at sea level rise in Scotland or the UK.

In addition, does the decrease in those answering with the UK indicate that respondents don't see the vulnerability the UK has and therefore there is not so much need for adaptation?

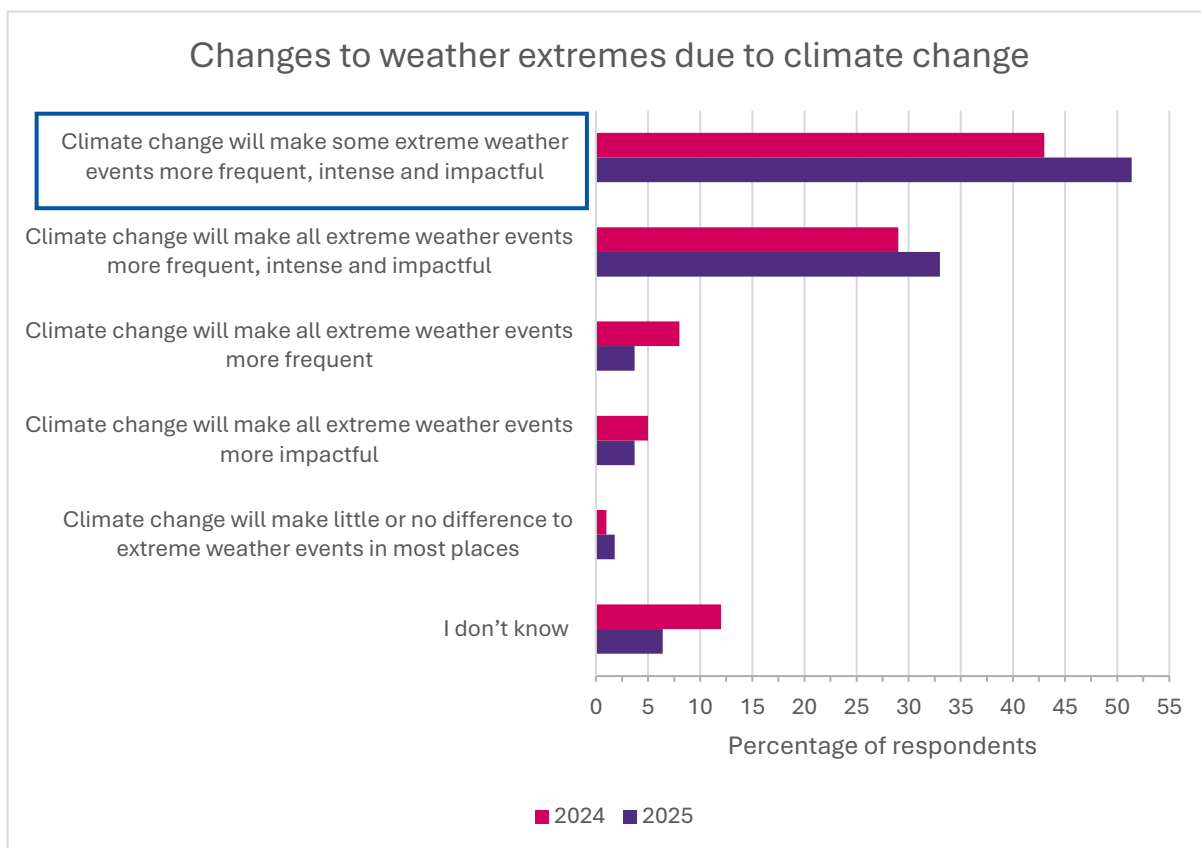


Q51. n(2025)= 109
Correct answer is boxed.

5.5 Impact of climate change on extreme weather (Q15)

The majority of respondents (51%) answered this question correctly, identifying that only some extreme weather events will change in nature. One third (33%) of respondents selected that all extreme weather events would change in nature. Less than 1 in 10 respondents (8%) identified climate change is only having impact on either extreme weather impacts (4%) and frequency (4%). 2% of respondents though there would be no change to extreme weather, despite wide coverage in media and social media, and they will all have direct experience with worsening extremes as all would have been teenagers when 40°C was exceeded for the first time in England in 2022. A small percentage of respondents said that they did not know the answer (6%), which is a decrease from the previous year.

This question was answered better than in 2024, where the majority of respondents answered incorrectly or did not know.



Q15. $n(2025)=109$
Correct answer is boxed.

5.6 Areas with the fastest climate change

There are a number of questions in the survey that addressed the speed of climate change, however questions were in different question groups.

5.6.1 Q59

The correct answer for this question is the Arctic. Arctic amplification is the term used to describe the enhanced warming in the Arctic region compared to the rest of the globe. Scientists calculate that the Arctic region has in fact warmed four times faster than the globe since 1979¹⁸.

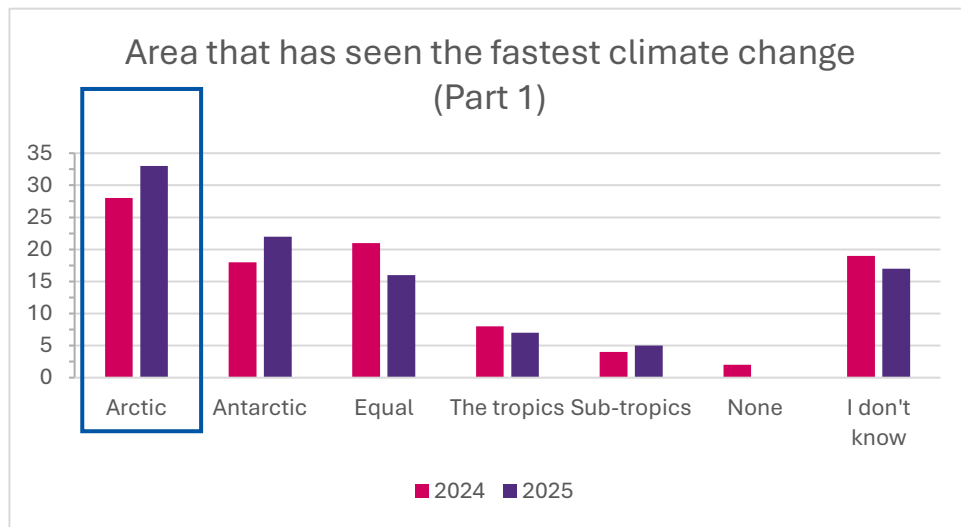
A third (33%) of respondents correctly answered this, with over a fifth (22%) identifying the Antarctic, another polar region, as the answer.

The tropics and subtropics were incorrectly selected by 12% of respondents, indicating that the majority are aware that polar regions are warming faster.

16% of respondents think that the warming is uniform across all the areas, which is surprising considering general awareness of the plight of polar bears. However, this is a drop from the 21% of respondents in 2024 that thought warming was the same across the board.

¹⁸ [M Rantanen et al., 2022](#)

The 17% of the respondents who also admit that they do not know the answer is also surprising for the same reason.



Q59. n(2025)= 100
Correct answer is boxed.

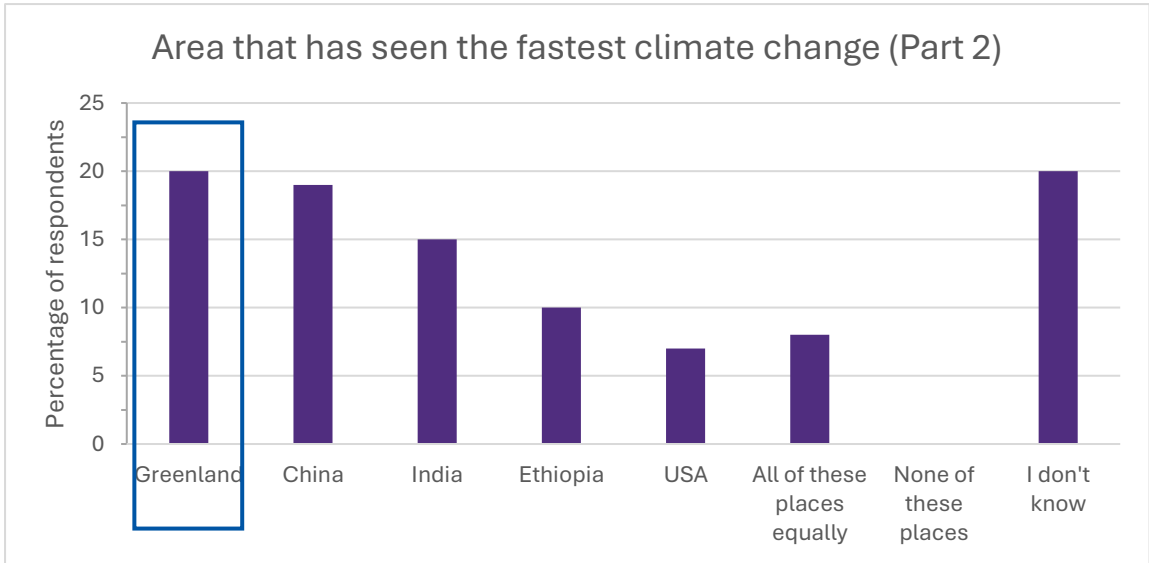
5.6.2 Q47

This question is not as well answered as the previous question (Q59). Although a fifth of respondents (20%) correctly identified that Greenland is seeing the fastest climate change, the same proportion of respondents answered with 'I don't know'. The vote for China was also not much smaller with 19% respondents answering with China.

15% of respondents identified India as the answer, 10% voted for Ethiopia and 7% for USA.

8% of respondents thought that the speed of climate change was the same across all countries and areas.

Despite the previous question (Q59) suggesting that respondents are aware that global warming is happening faster in the Polar regions, particularly the Arctic, this is not reflected in this question. This may be due to lack of knowledge of Greenland's location, but also perhaps respondents are mixing up causes and impacts and do not know local emissions have global impacts (China and India are large emitters).



Q47. n(2025)= 100
Correct answer is boxed.

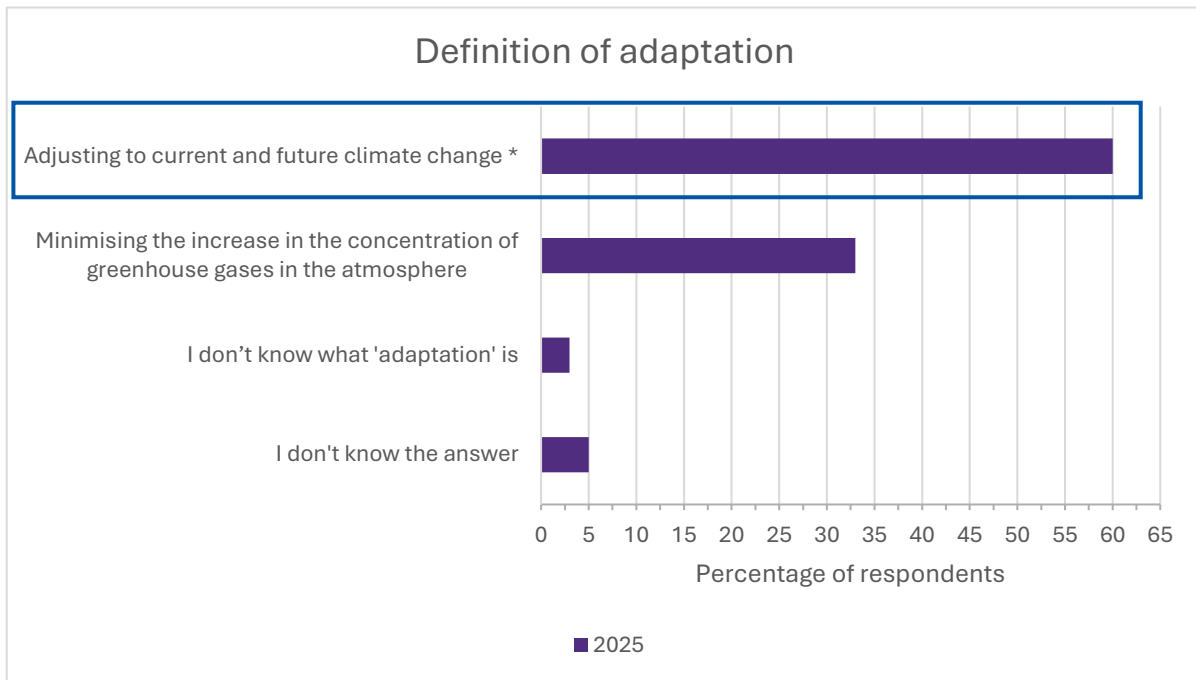
6. Adaptation and Mitigation

6.1 Adaptation

6.1.1 Adaptation to climate change (Q50)

Q50 was one of the questions that had significant changes made to the answer options (see section 1.3.3). As a result, no comparison to previous years' data can be made.

The majority (60%) of respondents correctly selected the definition of adaptation with one third (33%) incorrectly selecting the definition of mitigation for this question. Less than 1 in 10 respondents (8%) answered with either of the 'I don't know' answers.



Q50. $n(2025)=109$
Correct answer is boxed.
Changes to question indicated by *

6.1.2 Adaptation strategies (Q16)

Despite the majority of respondents correctly defining the term adaptation in Q50, this knowledge is not carried through to awareness of adaptation strategies.

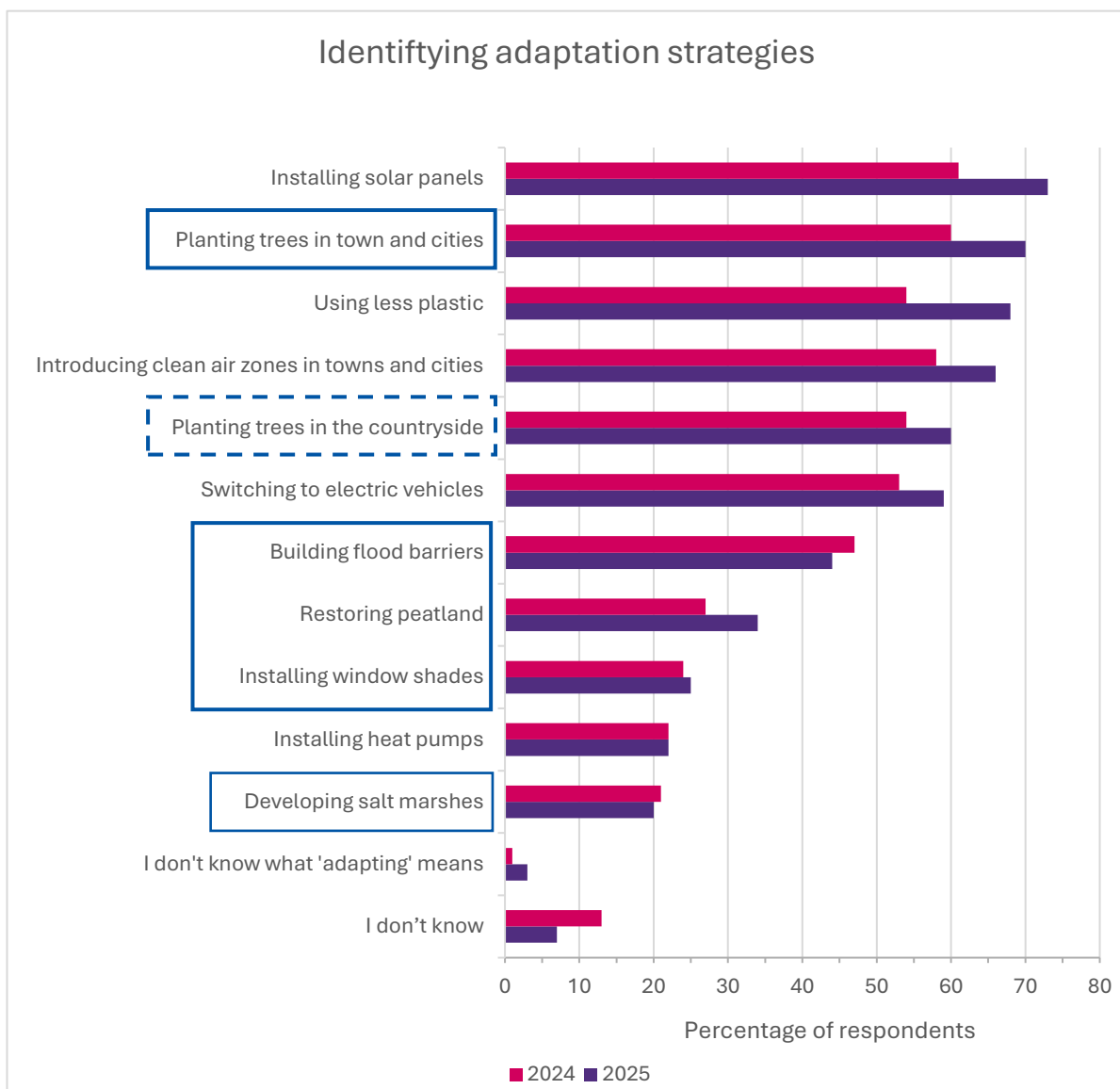
The most popular answer of solar panels, which is a mitigation strategy and therefore incorrect, was selected by 7 in 10 respondents (73%). Other highly ranked but incorrect strategies that were chosen by more than 6 in 10 respondents were using less plastic (68%) and introducing clean air zones (66%). These were then closely followed by switching to electric vehicles (EVs), another mitigation strategy, selected as an answer by 58%. Answers here re-emphasise the misunderstanding of the role of plastic, which was also identified in the Core 3 question.

Only two correct answers were ranked in the top 6 answers, and that is planting trees in urban and rural settings, correctly chosen by 70% and 60% of respondents respectively. Although the benefit of rural tree planting is mainly through its mitigating impact, here we acknowledge that there can be co-benefits such as flood management which can be classed

as adaptation actions. However, we are unable to know if respondents are selecting these answers for the correct reasons; do they really understand the role trees play in urban areas such as increased evapotranspiration, shade cooling surface temperatures or slowing down precipitation's runoff time and reducing flash flooding?

The other correct answers were selected by fewer respondents, and in some cases, far fewer than 50% of respondents. Building flood barriers was correctly selected by 44% of respondents, installing window shades was correctly selected by 25% and developing saltmarshes by 20%.

The proportion of respondents admitting that they don't know what the term means is 3%, which is the same percentage of respondents who answered the adaptation definition question (Q50) in the same way. The respondents who didn't know the answer at all made up 7% of respondents.



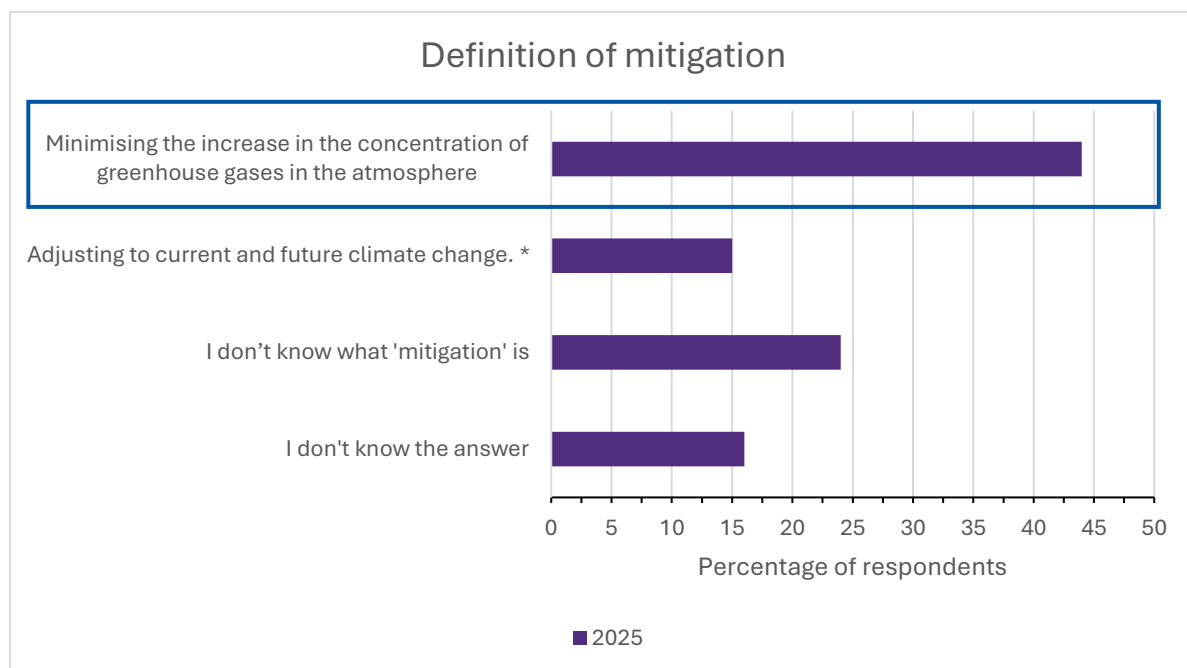
Q16. n(2025)= 106
Correct answers are boxed.

6.2 Mitigation

6.2.1 Mitigation of climate change (Q31)

Like Q50, the provided answers to choose from were changed in 2025 and therefore comparisons to the 2024 results cannot be made.

Defining mitigation was not done as successfully by respondents as defining adaptation. There were no options that were selected by the majority of respondents, instead over two fifths (44%) of respondents correctly defined mitigation, whilst 15% of respondents incorrectly selected the definition for adaptation. Those that didn't know what the term mitigation meant made up 24% of responses and those who didn't know the answer made up 16%.



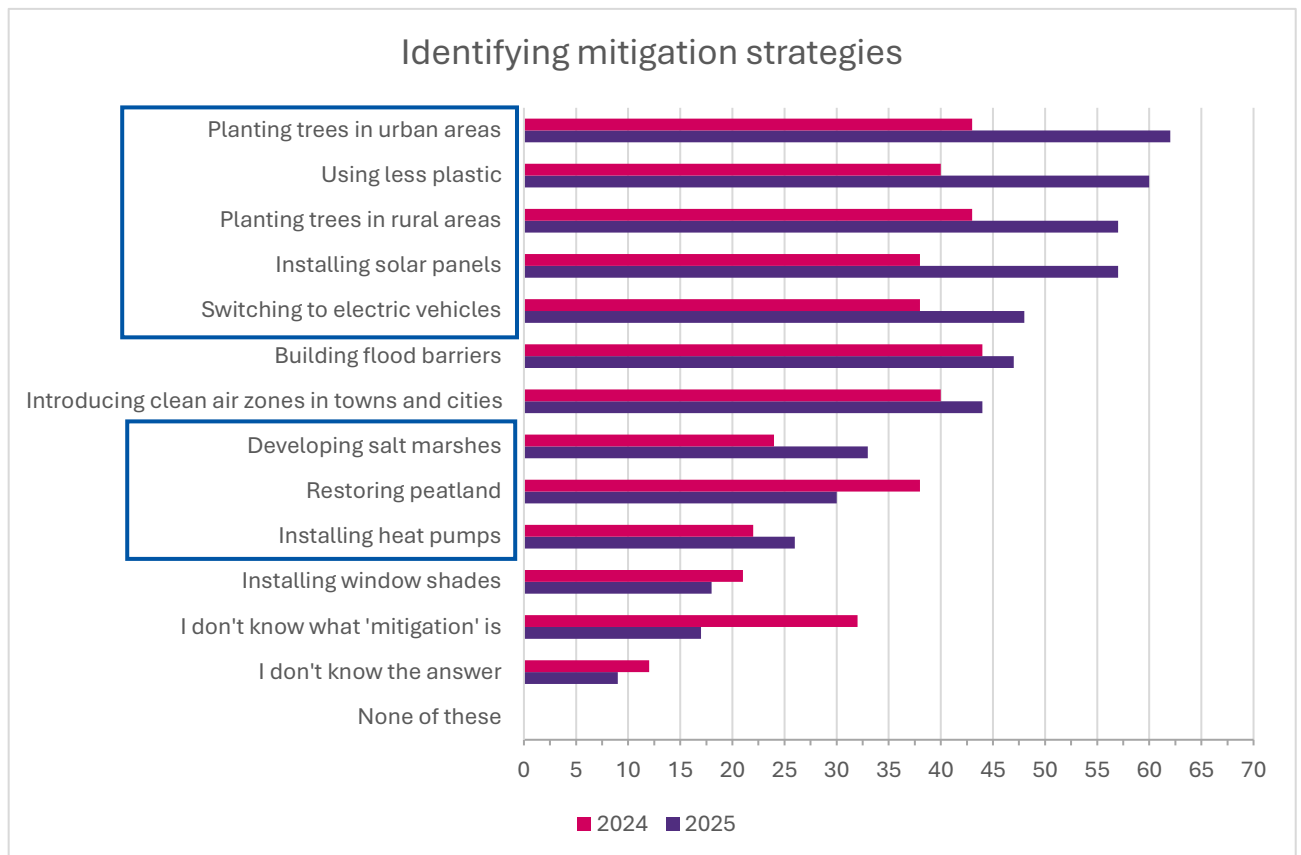
Q31. n(2025)= 104
Correct answer is boxed
Changes to question indicated by *

6.2.2 Mitigation strategies (Q56)

The majority of respondents correctly identified that planting trees in urban areas (62%), using less plastic (60%), planting trees in rural areas (57%) and installing solar panels (57%) are mitigation actions. However, there are two incorrect strategies that are more commonly identified than the remaining correct strategies: over two fifths of respondents incorrectly identified building flood barriers (47%) and introducing clean air zones (44%) as mitigation strategies. Restoring peatlands (30%), developing salt marshes (33%) and installing heat pumps (26%) are mitigation strategies that were poorly recognised. The lack of knowledge around peatland and saltmarshes would suggest nature-based solutions are less well covered at school and/ or in public communications.

Most of the strategies on the list have seen an increase in respondents identifying them as mitigation strategies irrespective if they are correct or not. The few exceptions to this are restoring peatlands and both 'I don't know' answers.

Overall, the mixture of answer indicates a lot of confusion over the definition of mitigation (Q31) and mitigation strategies.



Q56. n(2025)= 77
Correct answer is boxed.

6.3 Comparing mitigation and adaptation strategies

When comparing the adaptation and mitigation strategies that respondents identified, there is an overarching message of confusion.

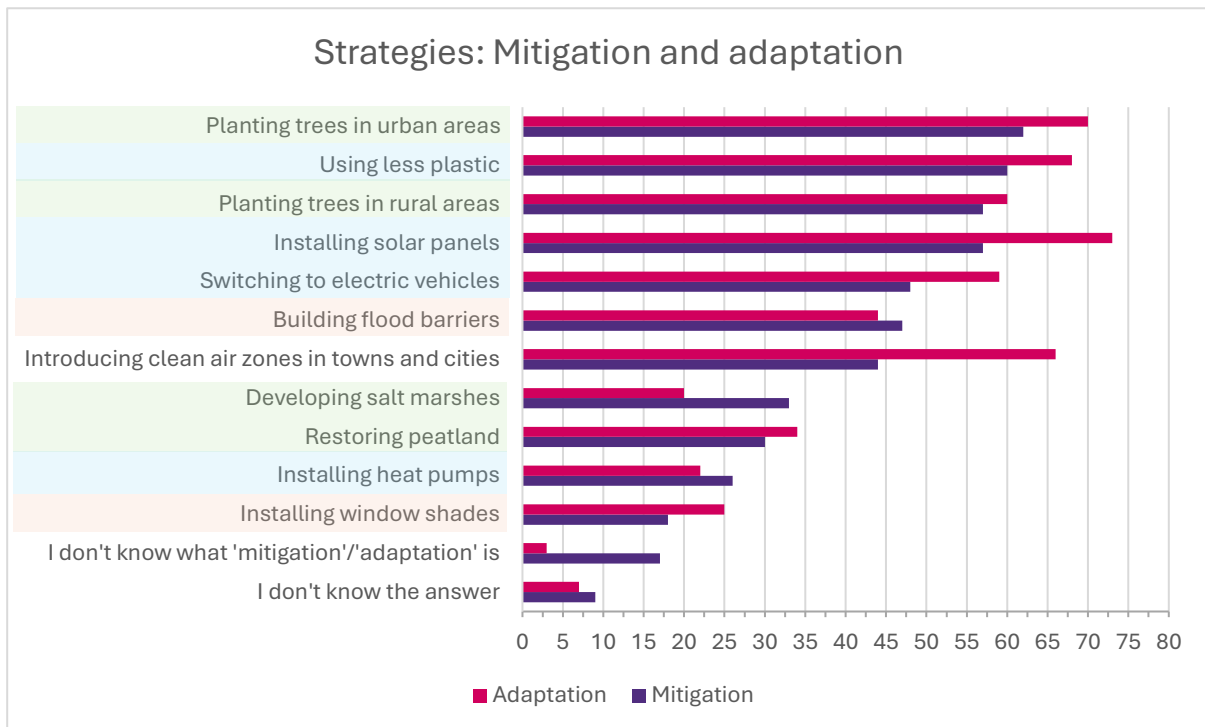
For most options, very similar numbers of respondents selected the option regardless about whether the question was asking about mitigation or adaptation strategies. This implies awareness that the strategies have got something to do with combatting climate change, but uncertainty about how they are doing so. Exceptions to this are installing solar panels, which more students incorrectly identified as an adaptation strategy and introducing clean air zones, which again more students identified as an adaptation strategy. In fact, the latter it is neither a climate change adaptation nor mitigation strategy, although it does mitigate poor air quality.

Nature-based solutions such as developing salt marshes and restoring peatland, which are both adaptation and mitigation strategies, were relatively poorly identified.

It is clear that respondents seem more confident in identifying adaptation strategies than mitigation strategies. This is further highlighted by the fact that a larger proportion of respondents admitted that they did not know the meaning or the answer for mitigation.

This comparison also highlights the confusions between the role of trees. It is interesting to see that higher proportions of respondents have identified planting trees in both rural and urban areas as an adaptation strategy, more so than mitigation. This is surprising considering tree planting is covered more widely across the curriculum as a mitigation strategy. Photosynthesis is taught in biology but perhaps students are unable to link their learning to the wider impact on the carbon cycle.

In addition to this a broader education of renewable energy could be taken. There is clearly a lot of awareness around solar power, but less so around heat pumps despite national policies to promote these.



n(mitigation) = 77
n(adaptation) = 106
 Answers shaded in blue = mitigation, orange = adaptation, green = both

6.4 Reducing greenhouse gas emissions

There were a group of questions that assessed the understanding of personal mitigation strategies amongst school leavers.

These five questions together highlight misconceptions about the efficacy of personal actions and their contribution to GHG emissions. This relates to the common focus in schools on personal carbon footprints rather than those of goods, services and organisations.

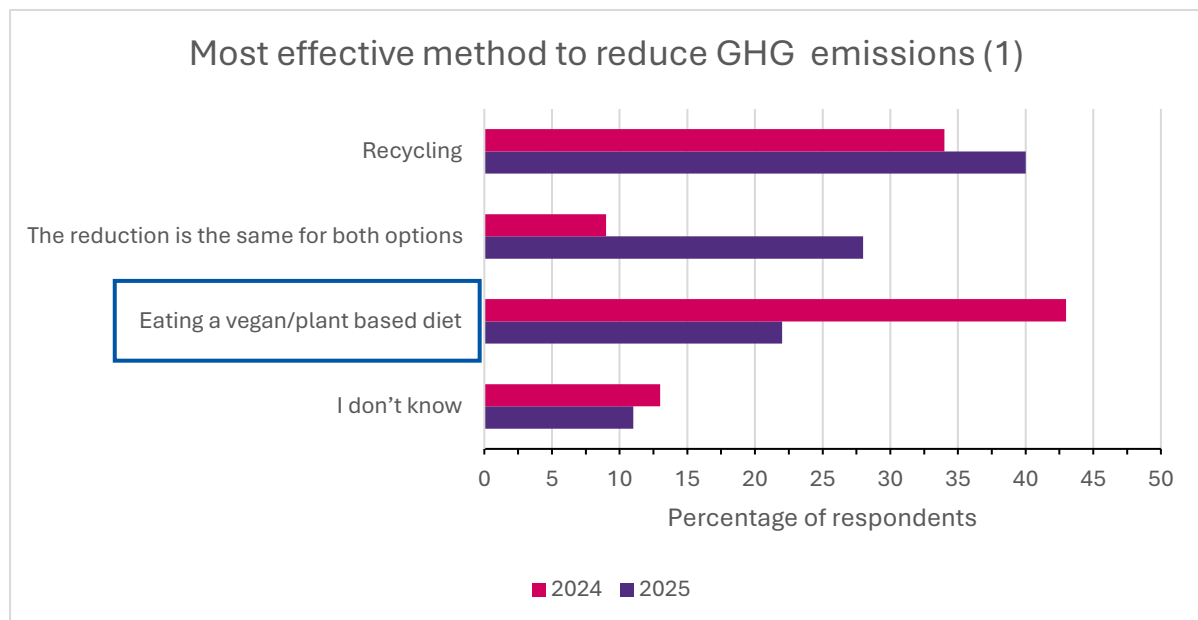
A focus on personal carbon footprints can generate feelings of guilt, lack of agency, or disengagement whilst, as we have highlighted, focussing on actions which in practice have little impact on greenhouse gas emissions.

6.4.1 Q18

This question was poorly answered, and in fact was answered more poorly than in previous years. The majority of respondents got the answer wrong, with two fifths (40%) of respondents saying recycling reduced emissions more and over a quarter (28%) of respondents thinking recycling and eating a vegan/plant-based diet have the same emissions. Just over one fifth of respondents (22%) answered this question correctly. Just over 1 in 10 (11%) students admitted that they did not know the answer.

These answers are significantly different from 2024, when almost twice the proportion of respondents got the question correct (43%) compared to this year and in fact the correct answer was the mode/most popular.

Despite other questions such as Q42 and Q32 indicating that respondents are aware of the significant emissions of GHGs from the agriculture sector, in particular livestock farming, this knowledge does not seem to extend to realising the impact of changing to a vegetarian diet. This may also be highlight that the impact of recycling is over emphasised and conversations around mitigation should be broadened.



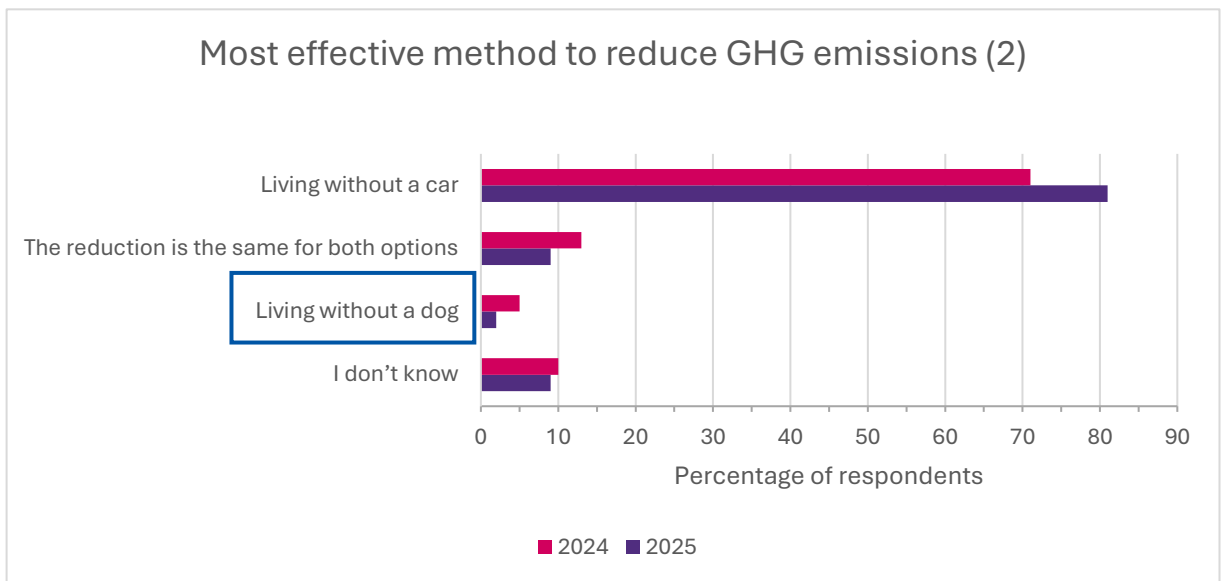
Q18. n(2025) = 116
Correct answer is boxed.

6.4.2 Q38

An overwhelming majority (81%) of respondents incorrectly thought that living without a car would reduce emissions more than living without a dog. Only 2% of the respondents answered this question correctly.

9% of respondents selected either 'I don't know' or that both methods reduced emissions by the same amount.

This question was also badly answered in 2024, with the results from this year being slightly worse as larger percentage (by 10%) selected the wrong answer of ‘living without a car’, and less people (by 3%) selected the correct answer.

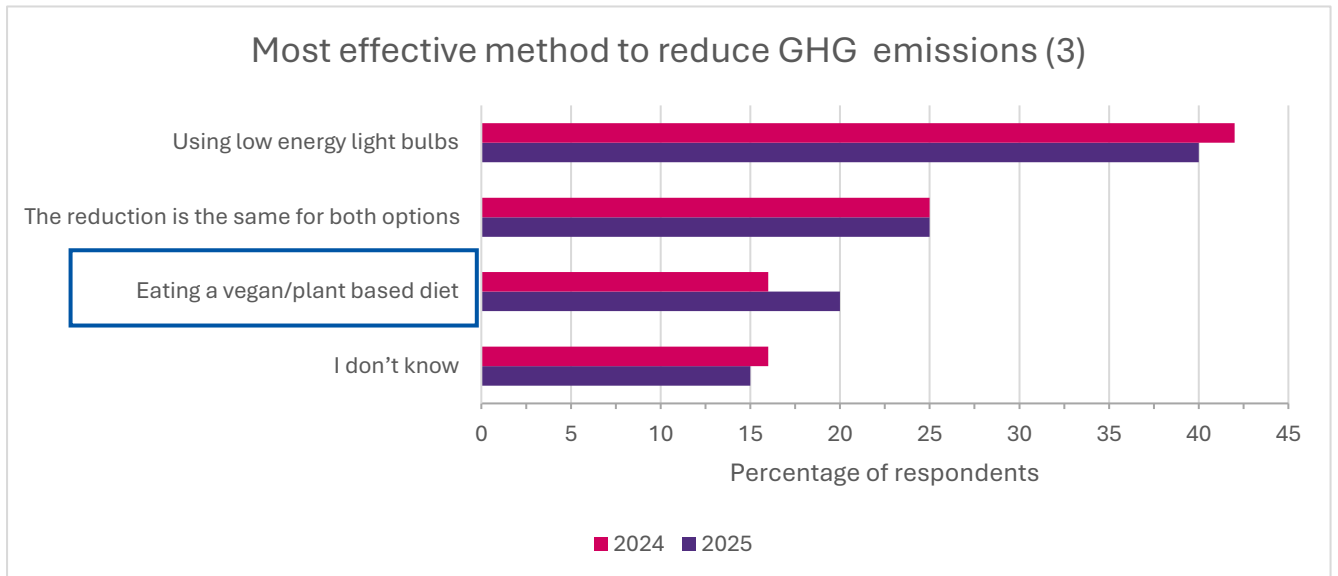


Q38. n(2025) = 94
Correct answer is boxed.

6.4.3 Q58

This was another poorly answered mitigation question where the majority (65%) of respondents got it wrong and 15% admitted that they did not know the answer. 4 in 10 respondents (40%) incorrectly answered that using low energy bulbs reduces emissions more than eating a vegan or plant-based diet. This was a small decrease compared to 2024 (42%) and a quarter of respondents (25%) thought both methods have the same impact. Only 20% of respondents answered correctly, identifying that eating a vegan/plant-based diet is the best of these methods to reduce emissions. This was a slight improvement on the results in 2024 (16%). The number of those admitting they do not know (15%) stayed about constant from 2024 (16%).

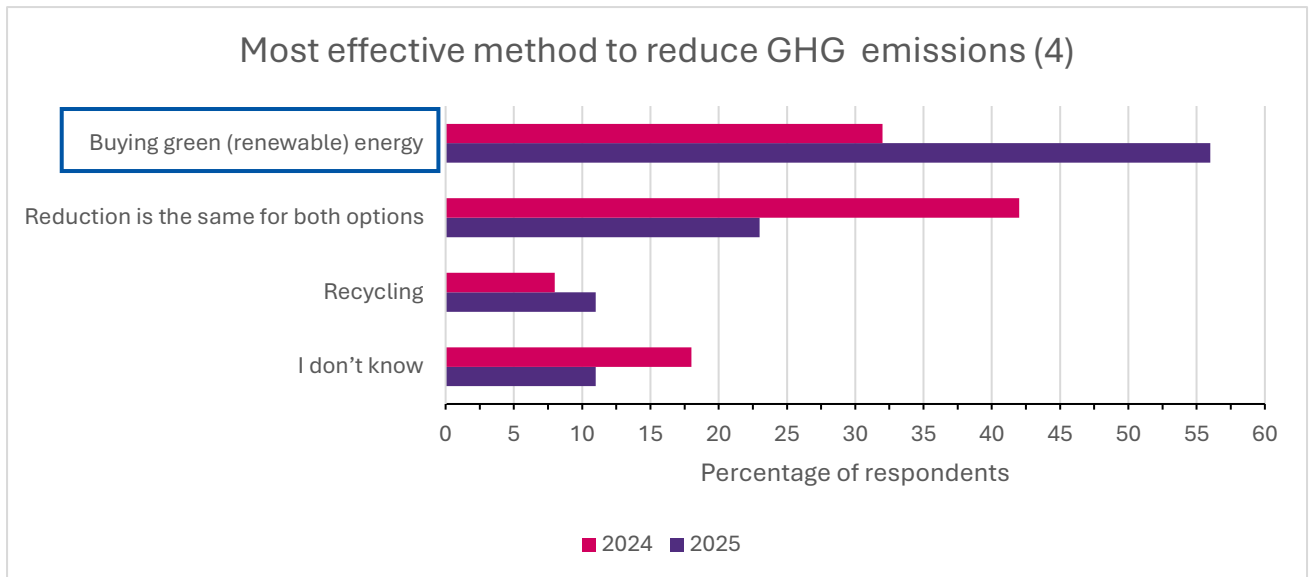
This, similarly to Q18, highlights the emphasis put on lights in schools - from ensuring lights are turned off to changing old filament to low energy bulbs.



Q58. n(2025) = 100
Correct answer is boxed.

6.4.4 Q29

This question was the best answered mitigation strategy question this year, where the majority (56%) of respondents correctly identified that buying green energy is a more effective mitigation strategy than recycling. 1 in 10 (11%) however incorrectly thought recycling was the best method. Over 1 in 5 respondents (23%) thought both options were just as effective, and 1 in 10 (11%) did not know the answer. This question was better answered than in the 2024 survey, where the most popular answer was that both options were equally as effective, and just under one third (32%) of respondents knew using green energy has the biggest reduction in emissions.

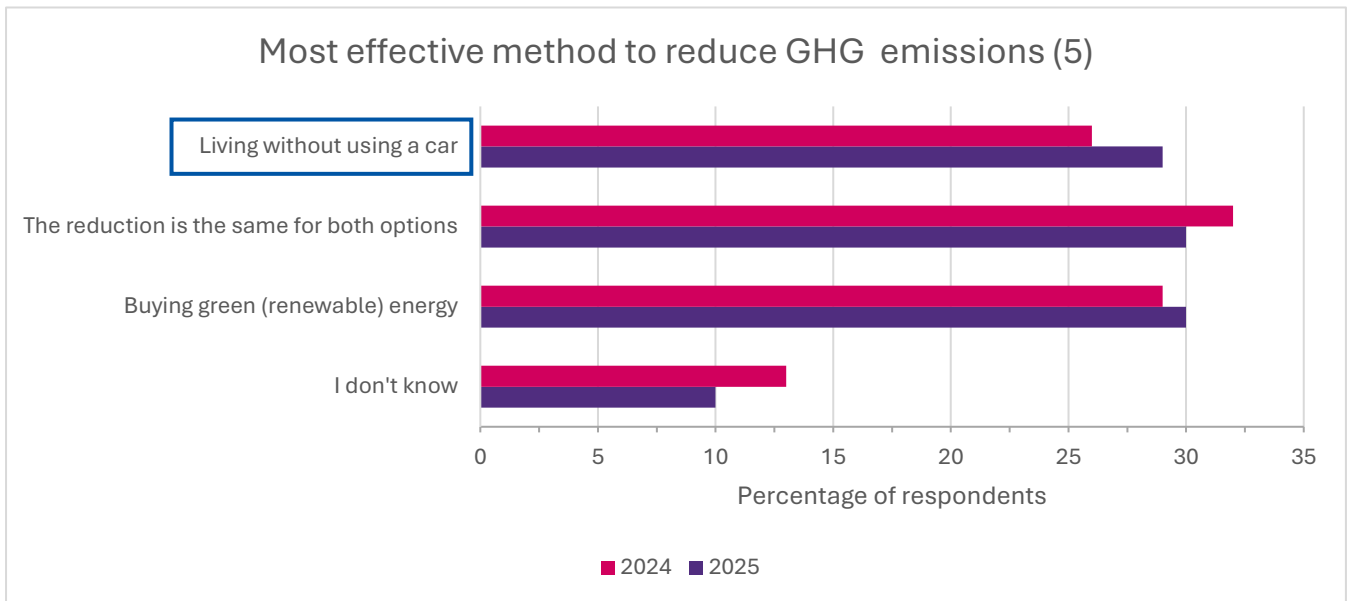


Q29. n(2025) = 104
Correct answer is boxed.

6.4.5 Q48

The responses to this question highlight a level of uncertainty around the impact on emissions of living without a car or of buying green/renewable energy. The proportion of responses for living without a car, buying green energy, and the two methods being equally effective were all voted for by around 30% of respondents, having 29%, 30% and 30% of the responses respectively. Only 1 in 10 (10%) answered the question with 'I don't know'. Living without a car has, in fact, about twice the impact of buying green energy. However, this difference in impact is smaller than the difference between the choices presented in the other questions in section 6.4.

The responses are not dissimilar to 2024, although there was a bit more separation. Last year saw living without a car receiving the most selections (32%), both methods having the same impact followed closely behind with 29%, and living without a car at 26%.



Q48. n(2025) = 109
Correct answer is boxed.

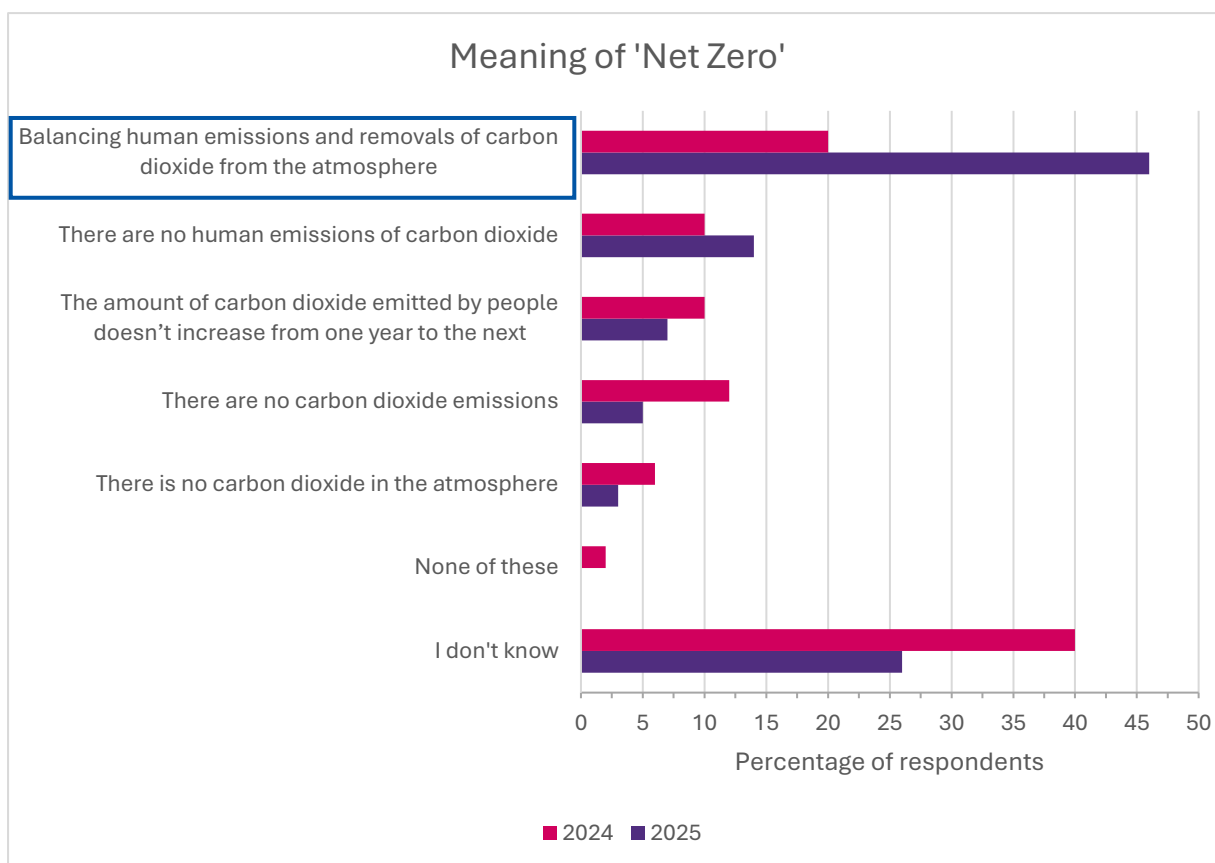
6.5 The meaning of 'net zero' emissions (Q30)

This question has seen an improvement in the response given by the respondents compared to last year, however it is still not as well answered as would be expected for a term seen commonly throughout the media, as well as in schools, businesses, homes and policy.

46% of respondents correctly answered this question, followed by over a quarter of respondents (26%) choosing to answer with 'I don't know'. A deeper dive into the national breakdown shows that the majority of respondents (54%) who received this question from England correctly answered this, with the lowest proportion (33%) of correct answer from respondents in Wales.

Over 1 in 10 respondents (14%) thought that the term meant no CO₂ emissions could be made by humans to achieve net zero, perhaps presenting a rather negative opinion on whether we can reach net zero and the extent to which life as these young adults know it must need to be altered. This is also an increase in the proportion selecting this definition since 2024 (10%).

The other options were only selected by small proportions of the respondents; 7% of respondents thought net-zero means emissions can't increase every year, 5% think no emissions of CO₂ can happen at all, and 3% think it means there can be no CO₂ in the atmosphere at all.



Q30. n(2025) = 104
Correct answer is boxed.

6.6 Understanding the meaning of the 2°C international policy goal target (Q49)

In the Paris agreement parties agreed to a goal in which the increase in the global average temperature would be held to well below 2°C above pre-industrial levels. However, this is a global average, and therefore there may be places that exceed this temperature value and some that won't warm that much.

Understanding of the averaging calculation is clearly misunderstood with the top two answers selected by respondents showing an understanding that meeting the targets means nowhere warms more than 2°C above today's temperature (17%) or pre-industrial temperature (28%).

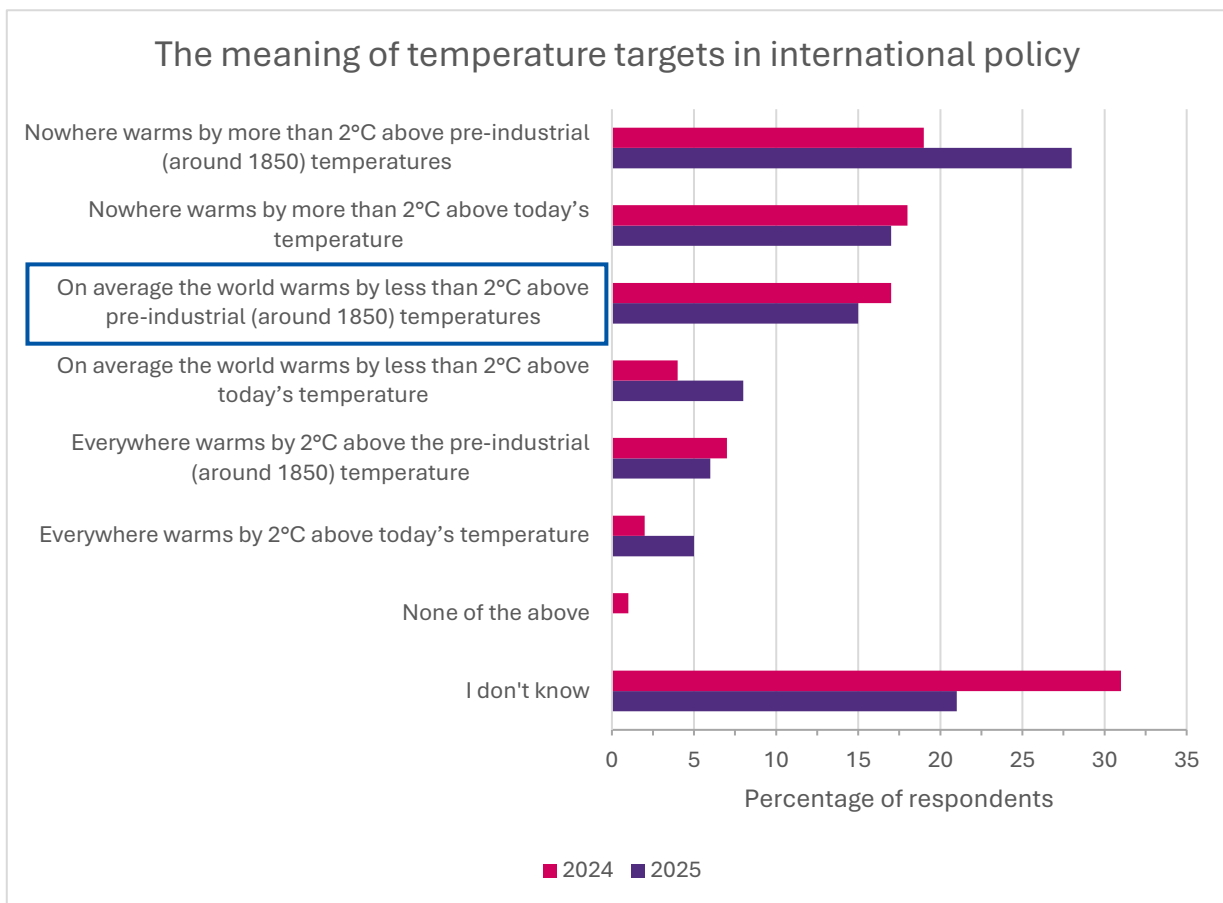
The correct answer was identified by only 15% of the respondents, with 8% thinking it was an average but with the baseline being today's temperature.

1 in 10 (10%) of respondents thought that the target meant everywhere warmed by 2°C above today's (5%) or pre-industrial (6%) temperatures.

One fifth of respondents (21%) answered 'I don't know' and this was the third most common response.

Comparing these results to 2024, it would seem this question was less well answered by respondents, with a smaller proportion of respondents selecting the right answer, and fewer people admitting they don't know the answer.

Improved communication around the targets and the definitions is required both in schools and to the public for people to understand what governments and international groups are trying to work towards and to be able to truly understand headlines in the news.



Q49. n(2025) = 109
Correct answer is boxed.

6.7 Zero carbon footprint activities (Q33)

Arguably none of these actions are completely net zero and therefore the 7% of respondents who selected 'none of these' are not wrong.

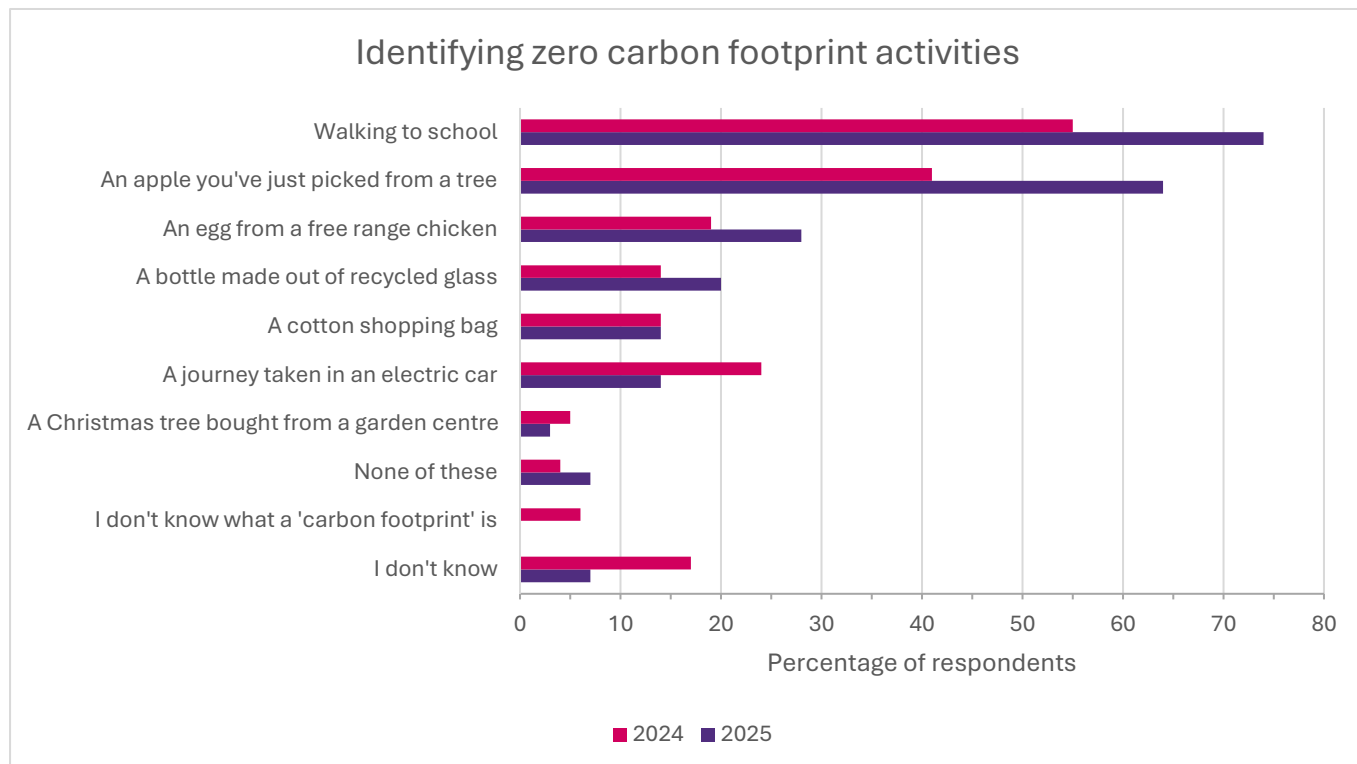
Picking an apple from the tree is the activity with the smallest footprint, and it depends on the care of the tree as to just how small its footprint is. Picking an apple from a tree was the second most popular answer, with just under two thirds of respondents (64%) selecting it. The most popular answer, almost given by three quarters (74%) was walking to the school, which also has a very small footprint.

More than a quarter of respondents (28%) thought that an egg from a free-range chicken has a zero-carbon footprint. This perhaps suggests that respondents mix up broader environmental and sustainability issues with carbon footprints and climate change/ global warming.

The proportion of respondents who think a journey taken in an electric car (14.4%) is zero-carbon is a significant decrease from the 24% of respondents who selected this last year.

Electric cars can only be run with no carbon footprint if they are run exclusively on renewable energy and, even then, there are emissions involved in the production and maintenance of the cars.

A positive result of this question was no one said that they did not know what a carbon footprint was, an improvement on the 6% of last year's respondents.



Q33. n(2025) = 90

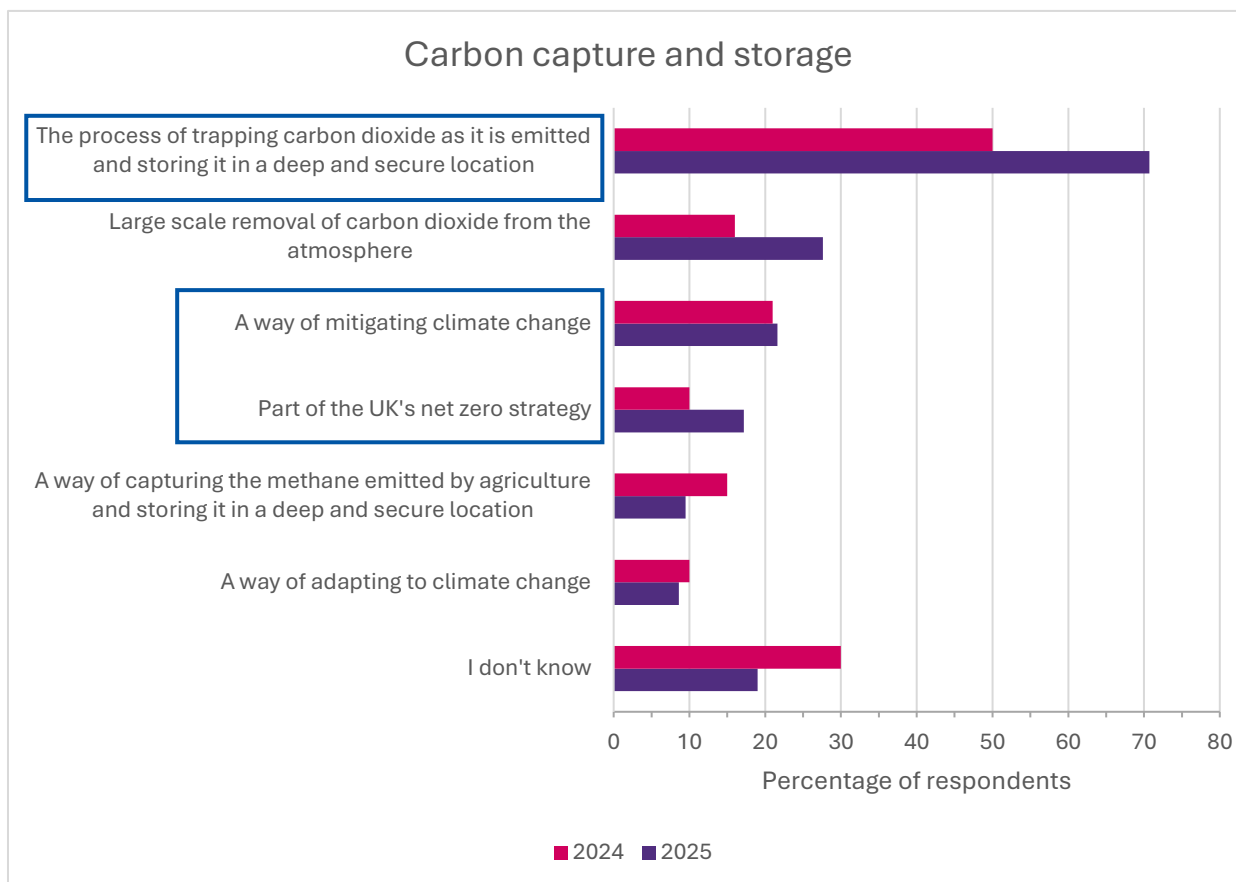
6.8 Carbon capture and storage (Q19)

Reassuringly the majority, 7 in 10 of the respondents (71%), correctly identified that carbon capture and storage is the process of trapping carbon dioxide as it is emitted and storing it in a deep and secure location. However, the support for the other two correct answers was not as strong. Just over one fifth (22%) of respondents knew that carbon capture and storage is a strategy for mitigation, and only 17% are aware that it is part of the UK's net zero strategy.

Over a quarter of respondents (28%) incorrectly think that carbon capture and storage is a large-scale removal of carbon dioxide, however it is taken from a discrete source and it is distinct from Direct Air Capture, which is a less evolved technology.

1 in 10 answered incorrectly by saying it involved in the removal of methane (10%), 9% said that carbon capture is an adaptation method. These are both decreased proportions from in 2024 (15% and 10% respectively).

19% of respondents did not know that answer, which too is a decrease in the 30% from 2024.



Q19. n(2025) = 116
Correct answers are

6.9 Industries mitigating climate change (Q21)

All industries can contribute to mitigation efforts, so all options are correct. Some have a greater potential for mitigation than others, and this seems to be reflected in the answers.

Over 3 in 5 respondents identified that the transport (64%) and agriculture industries (61%) can contribute to mitigation, which aligns with the respondents' identification of both being contributors to carbon dioxide and methane in Q42 and Q32 respectively.

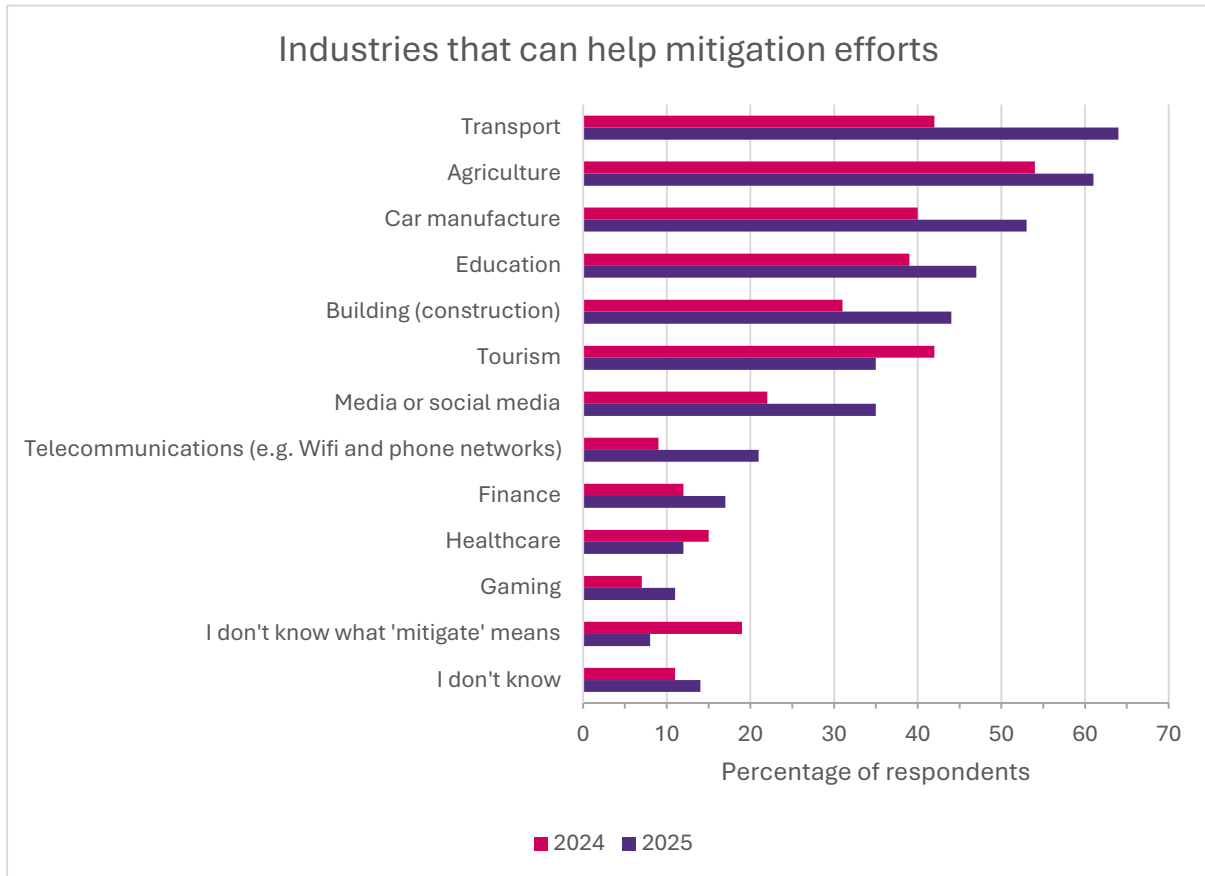
Car manufacturing was the only other industry that was identified by the majority (53%) of respondents.

As we look towards the industries ranked towards the bottom, we see that gaming, healthcare and finance all received a vote from less than one fifth of the respondents. This perhaps highlights the lack of knowledge around these sectors and therefore the sources of emissions from them and the potential for green careers associated with them. This supports a shift to look at the carbon footprints of goods, services and industries rather than personal footprints as suggested previously (section 6.4).

All the sectors saw an increase in votes compared to the 2024 survey, with the exception of tourism and healthcare.

Less than 1 in 10 respondents (8%) did not know the meaning of mitigation, a smaller proportion than admitted they didn't know the definition in Q31, and 13.5 % of respondents did not know the answer.

5% of respondents selected all the correct answers.



Q21. n(2025) = 111

7. Climate change in the UK

7.1 Projected climate change in UK winter (Q26)

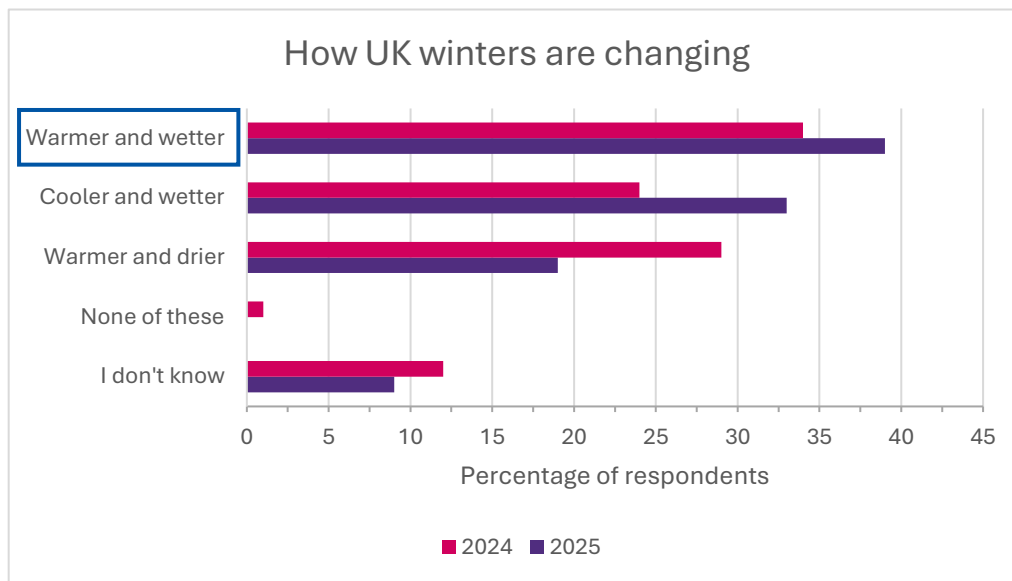
The UK Climate Projections report¹⁹ confirms that our winters are getting warmer and wetter and this correct answer was selected by over a third of respondents (39%). However, around a third of respondents incorrectly thought our winters are getting cooler and wetter (33%).

Less than a fifth of respondents (19%) think winters are getting warmer and drier. Combining the two warmer options, the majority of respondents identified that more students think winter weather is getting warmer rather than colder.

9% of students didn't know the answer whilst no one thought none of the options were correct.

¹⁹ [Met Office](#), 2022

Whilst this year saw an increase in those correctly answering the question, there was also a noticeable increase on those thinking winter is getting cooler and wetter.

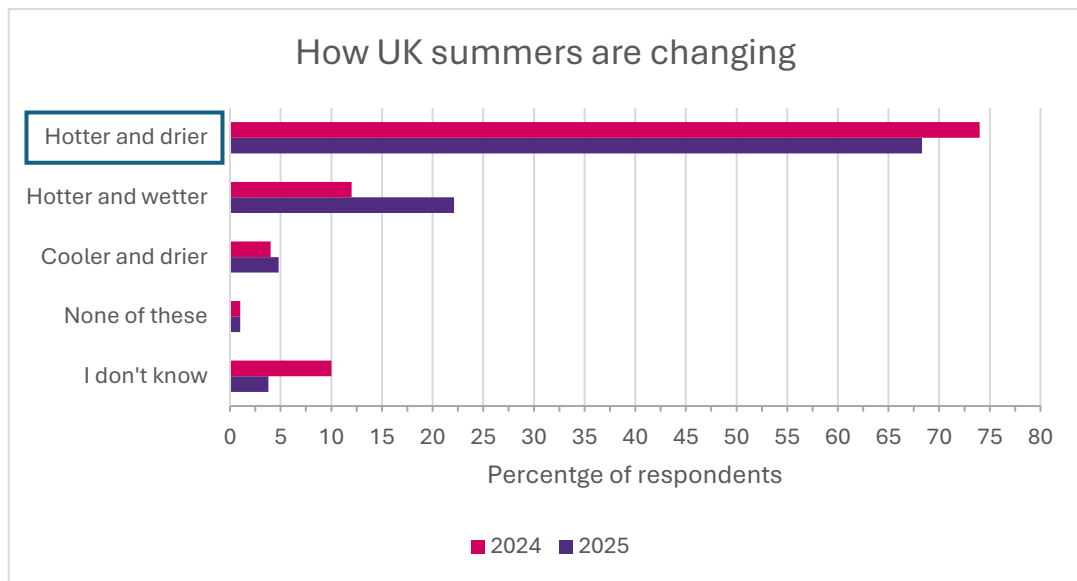


Q26. n(2025) = 106
Correct answer is boxed.

7.2 Projected climate change in UK summer (Q27)

Unlike the winter change, the summer change is more widely known amongst respondents with more than two thirds (68%) correctly identifying that summers are getting hotter and drier. Despite being the majority, this is actually a small decrease in correct answers from 2024, when 74% of respondents got the answer correct.

Instead, there has been an increase in those who think summers are getting hotter and wetter, with 22% of this year's respondents picking this as the answer compared to 12% last year. 5% of respondents incorrectly think that summers are getting cooler and drier, and only 1% thought none of the optional answers were correct, both very similar to last year. There was a reduction in those who did not know compared to 2024 too.



Q27. n(2025) = 104
Correct answer is boxed.

7.3 Contributors to rising sea levels (Q41)

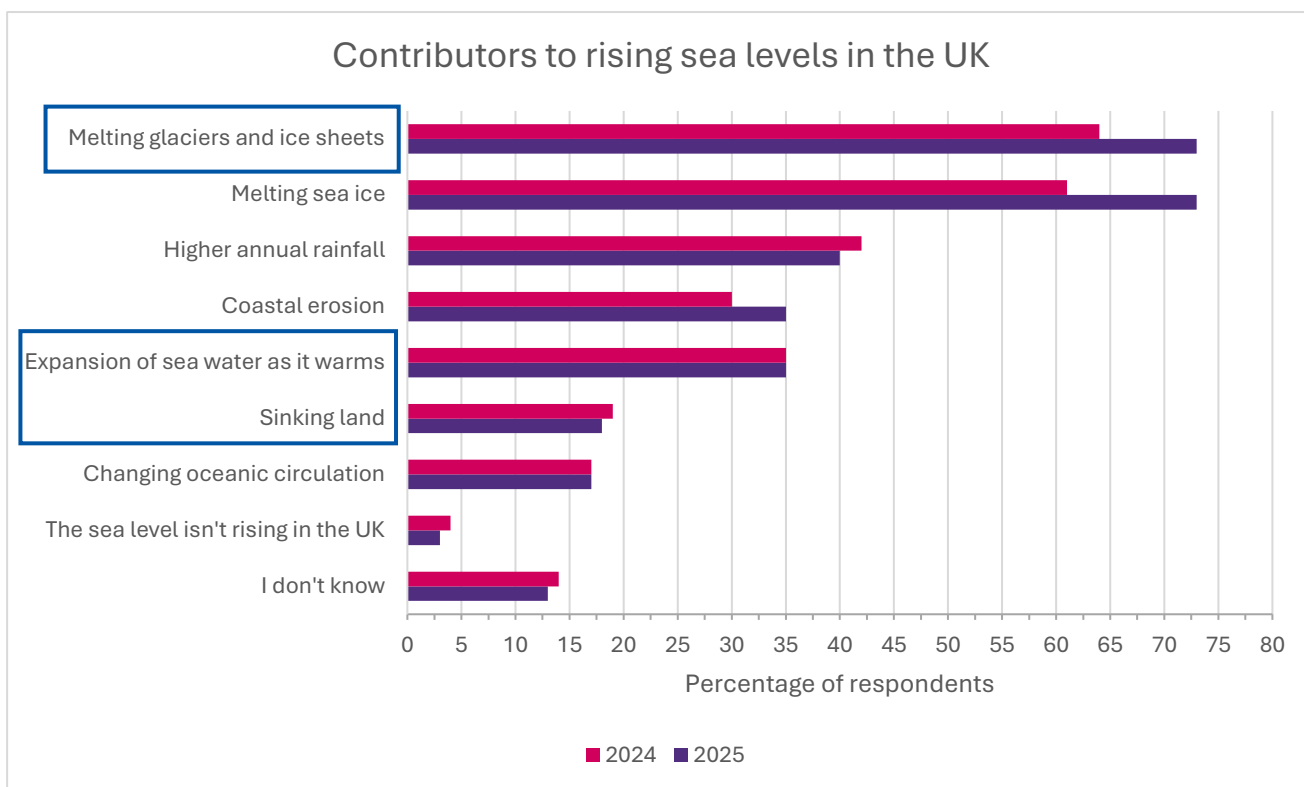
Answers to this question highlight a number of misconceptions that have been picked up by the RMetS in education and assessment resources and also in the 2024 CLS results. Despite the fact that over 7 in 10 respondents (73%) identified correctly that melting glaciers and ice sheets are contributing to rising sea levels, 3 incorrect answers were more widely selected than the other correct contributors. Melting sea ice (73%), higher annual rainfall (40%) and coastal erosion (36%) were incorrectly thought to be contributors by respondents. Only 35% selected the correct answers of thermal expansion and 18% sinking land. In fact, thermal expansion has contributed 43% of the global mean sea-level rise between 1970 and 2015 (IPCC, 2019)²⁰ and the lack of awareness of this is evidence to support the need for better context-based/ application of learning, in this case for the thermal expansion of liquids in science lessons.

Between 17% of respondents incorrectly think the oceanic circulation changing is contributing to sea level rise. Both sea level rise and changes to oceanic circulation are impacts and indicators of a warming climate.

A very small 3% of respondents didn't think sea levels were rising at all in the UK and just over 1 in 10 (13%) didn't know what the contributors were.

These results aren't dissimilar to the 2024 results, with the order of selected answers by proportion of respondents remaining the same (with exception to coastal erosion which is now equal to expansion of sea water). However, there large increases in proportion of respondents selecting incorrect answers in 2025, such as melting sea ice and coastal erosion.

²⁰ [IPCC, 2019](#)



Q41. n(2025) = 94
Correct answers are boxed.

7.4 Climate change risks in the UK (Q55)

This question is another in which answer options are qualitative rather than quantitative and therefore is a subjective question. The accepted 'correct' answers come from The UK Climate Change Risk Assessment 2022²¹.

Despite the results of the previous question (Q41) highlighting poor knowledge around the causes and contributors to sea levels rising in the UK, it has correctly been identified as a high risk impact in the UK by over three quarters of respondents (77%), closely followed by the linked impact of coastal flooding (75%). The majority of respondents also correctly identified that river flooding (64%) and extreme summer heat (67%) are risks in the UK.

Unlike the linked impacts of sea level rise and coastal flooding, the connection doesn't seem to have been made so well between extreme summer heat and wildfires, as less than half of respondents (48%) identified wildfires as a high risk, but another quarter (27%) at least identified it as a low risk. The most recent summer that these respondents experienced, summer 2024, was below the average summer temperature, and this may have impacted perception of extreme summer heat and wildfires, however there were still 20 wildfires across the UK with 3449ha burnt²².

Over two thirds of respondents (69%) correctly identified the risk of vector-borne diseases in the UK, with more people correctly thinking it is a low risk compared to a high risk.

²¹ [DEFRA, 2022](#)

²² [Global Wildfire Information System](#)

Tsunamis are not linked to climate change and hurricanes will not impact the UK. In both cases, the majority of respondents do believe that they will impact the UK and the risk will change due to climate change. Only a third of respondents (34%) correctly identified tsunamis would not be a risk of the UK, and only a quarter (25%) for hurricanes. This reinforces the misconceptions around the impact of climate change on hurricanes as seen in Q45 as well as a common confusion between tsunamis and storm surges.

A few small changes can be seen in responses from the 2024 survey. A lot more respondents this year voted that vector-borne diseases are a high risk due to climate change, and less people admitted that they do not know the risk of the diseases. There is also an increase in the number of people correctly answering that tsunamis and hurricanes pose no risk to the UK. However, the changes are small and not notable enough to support a statement that the impacts of climate change in the UK are becoming better known.

There are some notable differences when looking at the responses nationally (excluding Wales due to only 6 Welsh respondents answering this question). Scotland has notably lower proportions of students ranking coastal flooding (69%), sea level rise (72%) and in particularly river flooding (47%) as a high risk. However, Scotland does have a notably smaller percentage of respondents who think hurricanes pose a high risk (13.9%) to the UK. Conversely, respondents from English schools were more aware of the high risk of coastal and river flooding in the UK (80% and 73% respectively). English respondents were also more aware of the extreme summer heat having a high impacts (41%), perhaps due to the highest temperature records for the UK being set in the UK e.g. 40°C being surpassed in Lincolnshire. However, English respondents do seem to be the respondents most likely to think hurricanes pose a high risk to the UK due to climate change, a misconception picked up by English respondents the most in Q45 too.

2025 (All nations) Percentages	High risk	Low risk	No risk	I don't know
Sea level rise	77	10	5	8
Coastal flooding	75	13	1	11
Extreme summer heat	66	24	2	7
River flooding	64	25	2	8
Wildfires	48	27	16	10
Vector-borne diseases (e.g. ticks and mosquitoes)	30	39	17	15
Tsunamis	22	35	33	10
Hurricanes	30	36	25	8

2024 Percentages	High risk	Low risk	No risk	I don't know
Sea level rise	76	14	2	9
Coastal flooding	64	22	2	12
Extreme summer heat	64	21	4	11
River flooding	47	38	2	13
Wildfires	50	31	9	11
Vector-borne diseases (e.g. ticks and mosquitoes)	13	49	15	23
Tsunamis	18	41	21	16
Hurricanes	22	41	17	19

England Percentages	High risk	Low risk	No risk	I don't know
Sea level rise	80	10	5	5
Coastal flooding	80	17	0	2
Extreme summer heat	73	22	2	2
River flooding	73	22	2	2
Wildfires	54	20	20	7
Vector-borne diseases (e.g. ticks and mosquitoes)	29	39	20	12
Tsunamis	24	34	37	5
Hurricanes	41	29	27	2

Scotland Percentages	High risk	Low risk	No risk	I don't know
Sea level rise	72	8	6	14
Coastal flooding	69	8	3	19
Extreme summer heat	58	25	3	14
River flooding	47	33	3	17
Wildfires	42	31	14	14
Vector-borne diseases (e.g. ticks and mosquitoes)	28	42	11	19
Tsunamis	19	36	28	17
Hurricanes	14	47	22	17

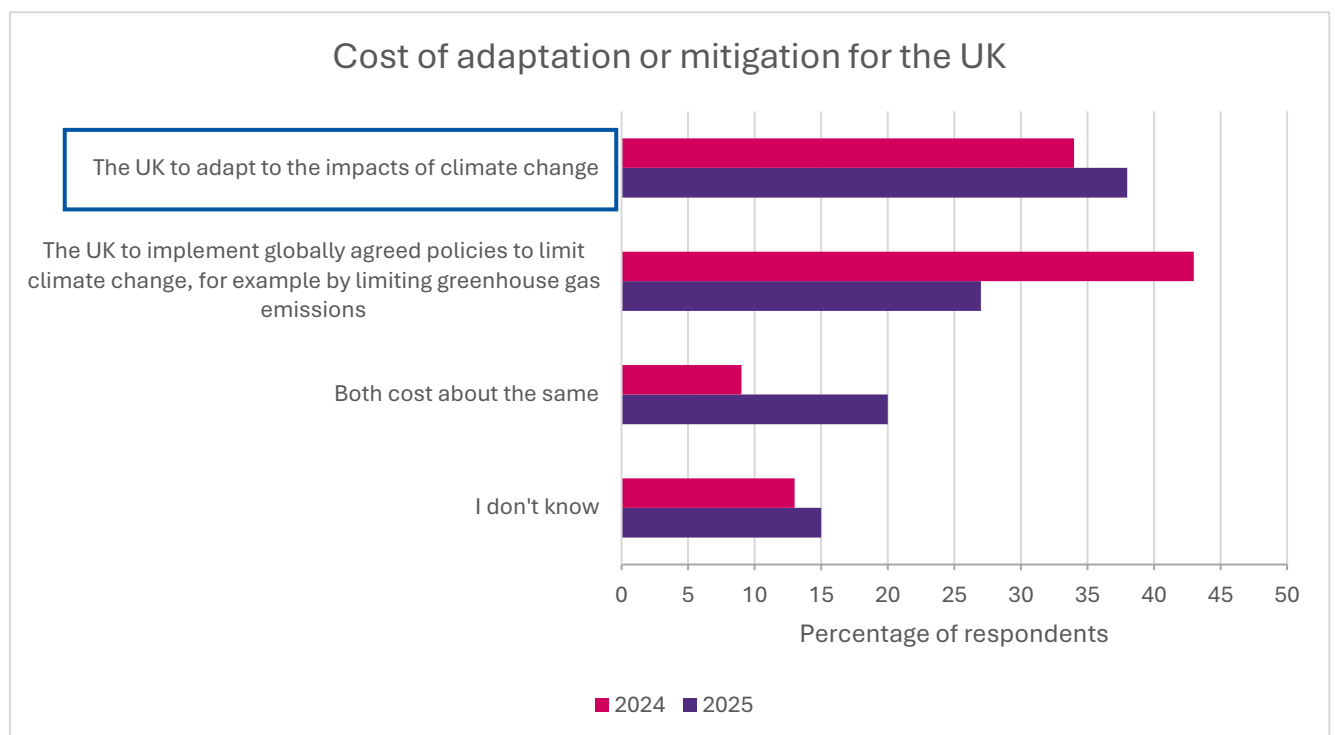
Q55. $n(2025) = 83$ $n(\text{England}) = 41$
 $n(\text{Scotland}) = 36$
 Correct answers are shaded.

7.5 Perceptions of the cost of climate action (Q17)

The most popular answer was the correct answer this year, with over a third of the respondents (38%) correctly identifying that the UK adapting to climate change impacts are more costly than the UK implementing globally agreed mitigation policies. Just over a quarter of respondents (28%) however incorrectly answered with global mitigation strategies. This is a considerable improvement on last year's results, where the largest vote from respondents was for the implementation of global mitigation policies.

However, there is a significant increase in those that think both approaches have a similar cost, from 9% in 2024, to 20% this year. Although there is a small improvement in answers to this question, it still indicates a significant improvement to the communication and teaching of mitigation and adaptation is needed.

Mitigation is cheaper than adaptation for individuals, communities, and businesses as well as for individual countries and the global community.



Q17. n(2025) = 116
Correct answer is boxed.

7.6 UK based industries that need to adapt to the changing climate (Q36)

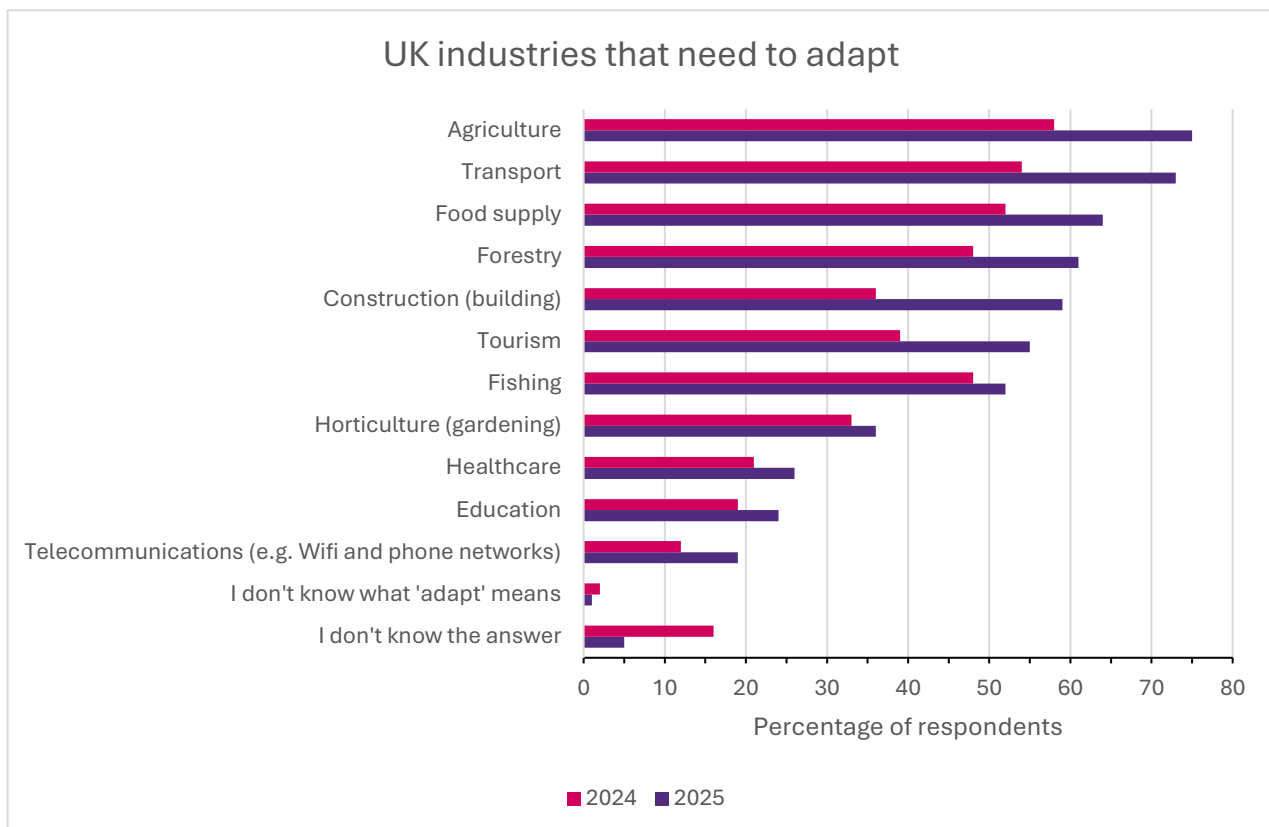
As in the mitigation question (Q21), all industries will be impacted by climate change and therefore all need to adapt to the conditions and challenges that they face as a consequence.

As in Q21, the top two answers selected by over 7 in 10 respondents, were agriculture (75%) and transport (73%). Over three fifths of respondents identified the need for the food supply (64%) to adapt, perhaps not surprising due to its close links with agriculture, and forestry (61%). Over half of respondents identified construction (59%), tourism (55%) and fishing (52%) as sectors that needed to adapt to climate change.

The lesser-known industries also align with those that were less known in the mitigation question with healthcare only getting 26% of the respondents vote, education being selected by only 24% and telecommunications being the least selected, 19%, of respondents.

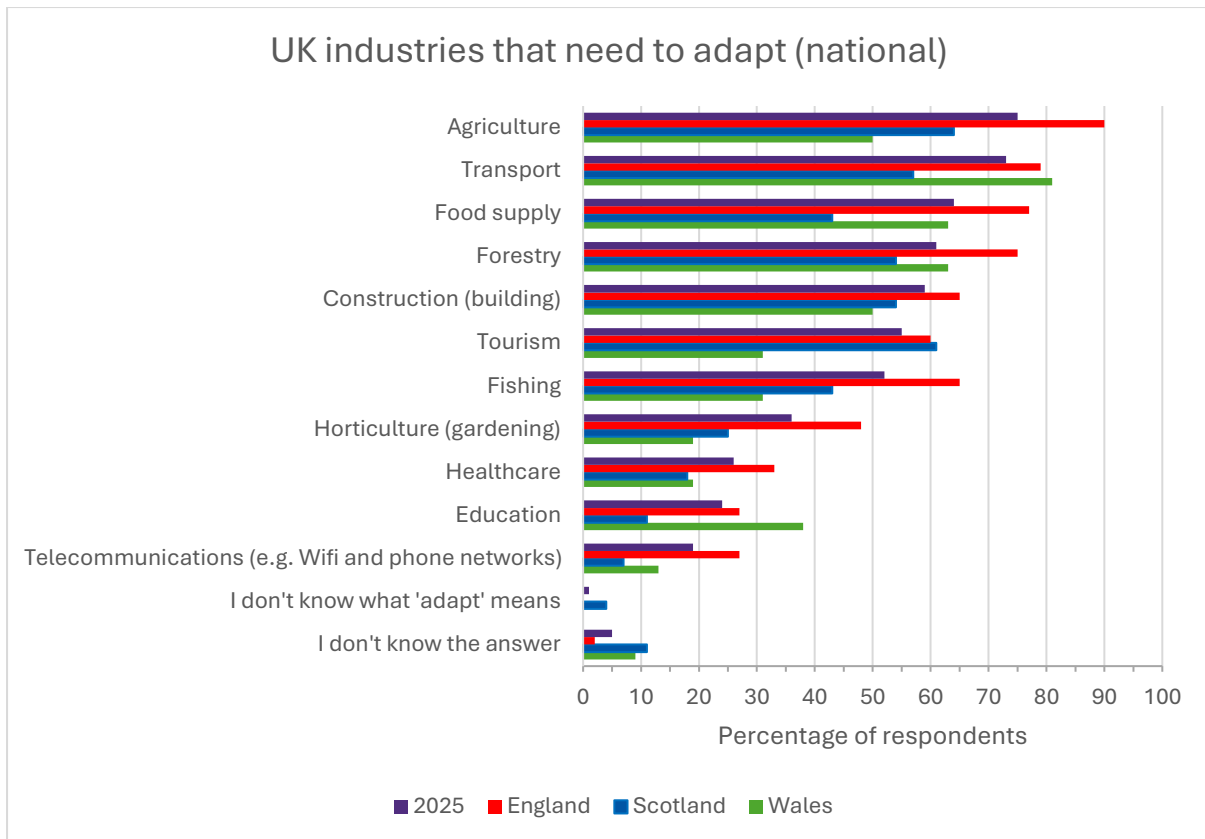
Only 1% of respondents admitted that did not know the definition of adaptation, compared to the 3% that admitted to not knowing the definition in Q50, and only 5% didn't know the answer at all.

Despite the lack of awareness of some of the larger industries needing to adapt, for example healthcare, all industry options saw an increase in votes compared to 2024, and both 'I don't know' options saw a decrease in selection. In addition to this 8% of the respondents selected all the industries.



Q36. n(2025) = 92

When comparing the answers by nation, responses from English respondents stand out for almost all industries as a very noticeable higher proportion of respondents are aware they need to adapt to climate change impacts. The industries that don't stand out in the English responses are tourism (60%), which had a similar proportion of Scottish students identified it as an industry to adapt (61%), and the 'I don't know answers' in which English students selected less than others. There is a notable difference in responses to education, with Welsh students more widely (38%) realising the need for adaptation in this sector, however due to difference in sample size it is not suitable to make any conclusions here. Despite this, English students were more likely to identify education (27%) than Scottish participants (11%).



Q36. $n(2025) = 92$, $n(England) = 48$,
 $n(Scotland) = 28$, $n(Wales) = 16$

7.7 The UKs energy mix (Q46)

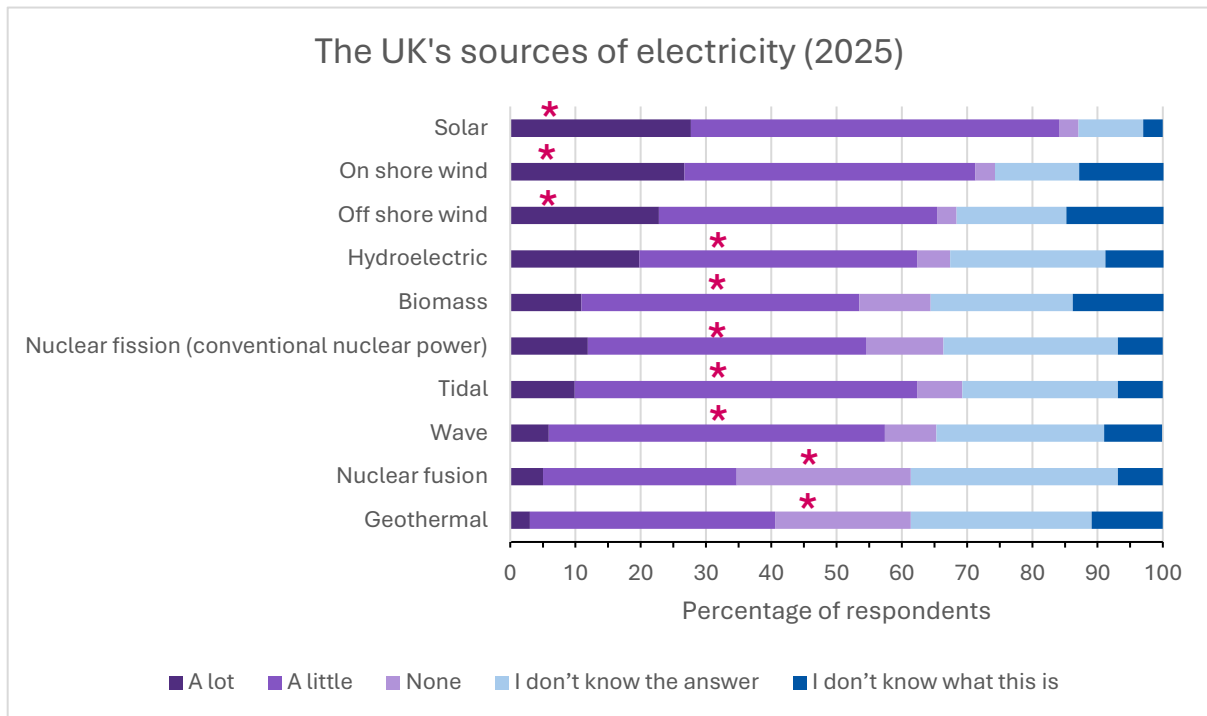
The answers from this question would suggest that majority of respondents have an awareness of most of the renewable sources of energy currently in use in the UK. The top known sources were solar and wind, both on- and off-shore, with 84%, 71% and 65% of respondents selecting them respectively. These three also had more than 1 in 5 respondents thinking their use in the UK is 'a lot'. Despite the majority of the respondents acknowledging that they are used, a higher proportion of respondents selected 'a little' over 'a lot'. These terms are very subjective, but indicates students are not aware that renewables are regularly generating more than 40% of the UKs energy on an annual basis.

Over three fifth of respondents (62%) knew that hydroelectric and tidal energy are used in the UK. Over half the respondents identified biomass (54%), nuclear fission (55%) and wave (57%) energy as a source in the UK.

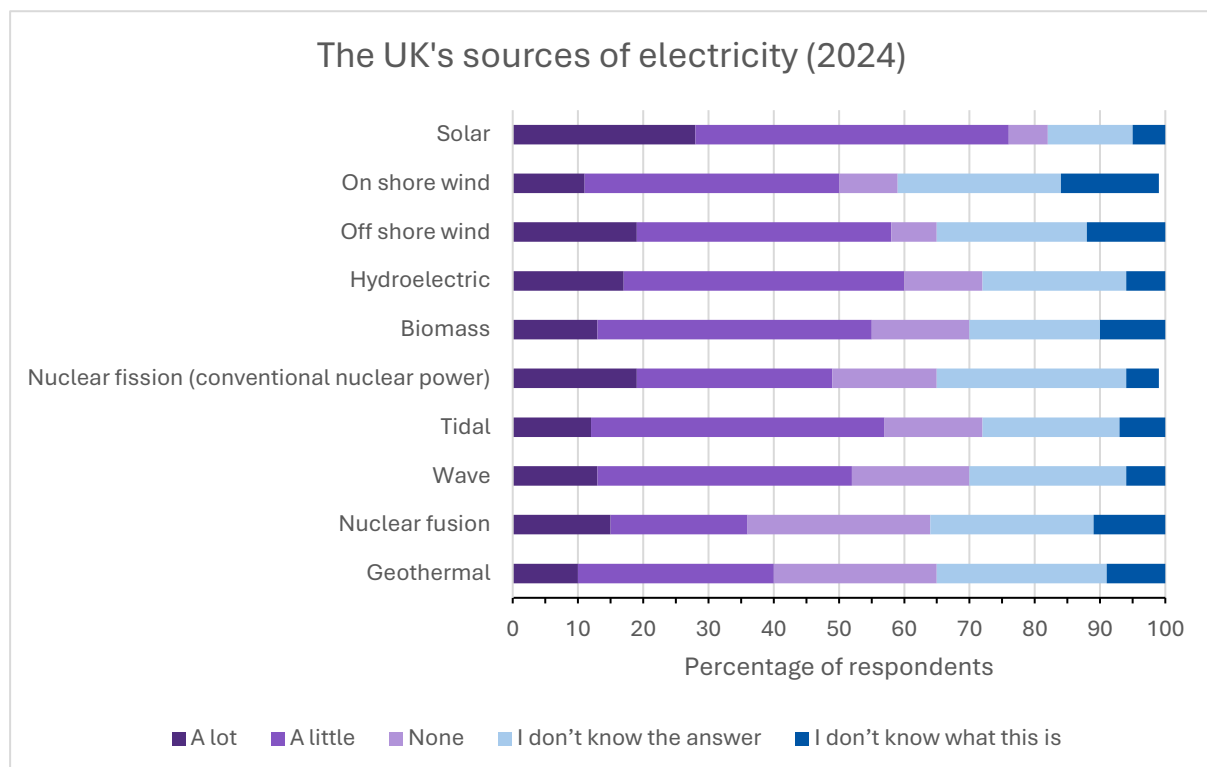
The two incorrect sources of UK electricity are nuclear fusion and geothermal energy. Despite having the largest percentage of students identifying that they don't contribute anything to UK electricity supply (27% and 21% respectively), there are significant numbers of respondents who mistakenly think they contribute to the UKs energy mix, with 35% and 41% of responses respectively. We recognise that ground source heat pumps are sometimes conflated with geothermal systems and might therefore lead to this option being selected inadvertently.

The confusion around not knowing the difference between nuclear fusion and fission here supports the previously identified uncertainty around nuclear fuel, for example in Q14 and Q42.

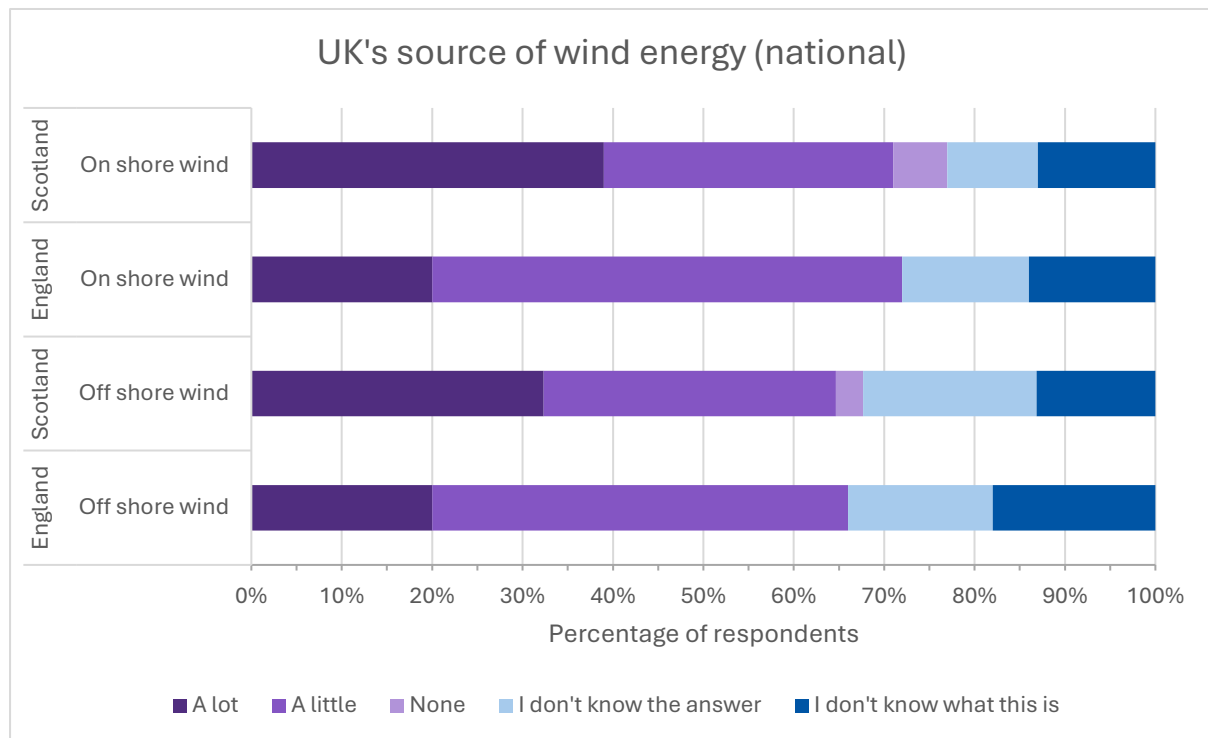
The awareness of UK energy sources has improved with increases, even if very small, for the majority of correct answers, with the exception of biomass. There has been little to no change in the proportion of students thinking geothermal and nuclear fusion is a source used by the UK overall.



Q46. n(2025) = 101.
 'Correct' answers indicated by * above



If we look at the breakdown comparing answers of respondents from England and Scotland, we see a notable difference in the proportion of respondents identifying wind energy contributing 'a lot' to the UK's energy. A higher proportion of Scottish respondents recognised that onshore and offshore wind contributed to the UK energy mix, particularly for onshore. This may highlight the greater number of onshore wind turbines in Scotland, meaning students see them on a more regular basis and therefore are more aware to the significant contribution to the overall renewable energy generation.



Q46. *n*(England) = 56.
n(Scotland) = 31

7.8 Perceptions of the UK fossil fuel reliance (Q37)

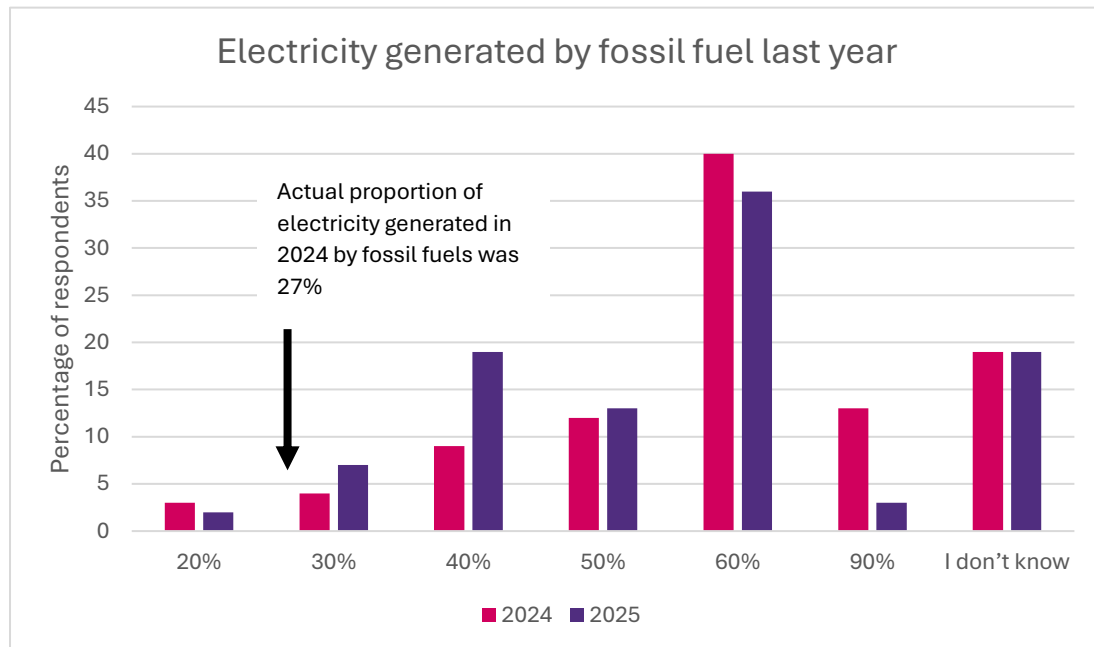
Last year, 2024, just 27% of electricity used was generated by fossil fuels in the UK²³, mostly through natural gas and a little through coal. More than 7 in 10 respondents (71%) overestimated the reliance on fossil fuels, voting for 40% and above of energy generation via fossil fuels. The answer that was selected the most was 60%, with over a third of respondents (36%) selecting it.

Only 2% of respondents voted for 20% and 7% or respondents for 30% which were the answers either side of the exact value. This is significantly less than the 19% who admitted that they did not know. There were no notable differences between responses from the different nations.

The overall picture painted by these results highlights respondents are unaware of the UK's versatility of energy sources and the successful transition to green our electricity grid. The picture is also similar to that in 2024 however there are less respondents who selected the

²³ [National Energy System Operator, 2025](#)

highest and second highest answer of 90% and 60%, with an increase in those identifying fossil fuels contributed 40% of the UK's electricity. It will be interesting to see if this trend continues in subsequent years, especially since all coal powered stations in the UK have now closed.



Q37. n(2025) = 94

7.9 Awareness of the UK's climate change mitigation strategies (Q39)

This question only has one incorrect answer - "engineered removal of greenhouse gases from the atmosphere". This strategy, also known as carbon capture and storage, is not currently done in the UK. It was selected by just over a quarter of respondents (26%), relating to responses to Q19.

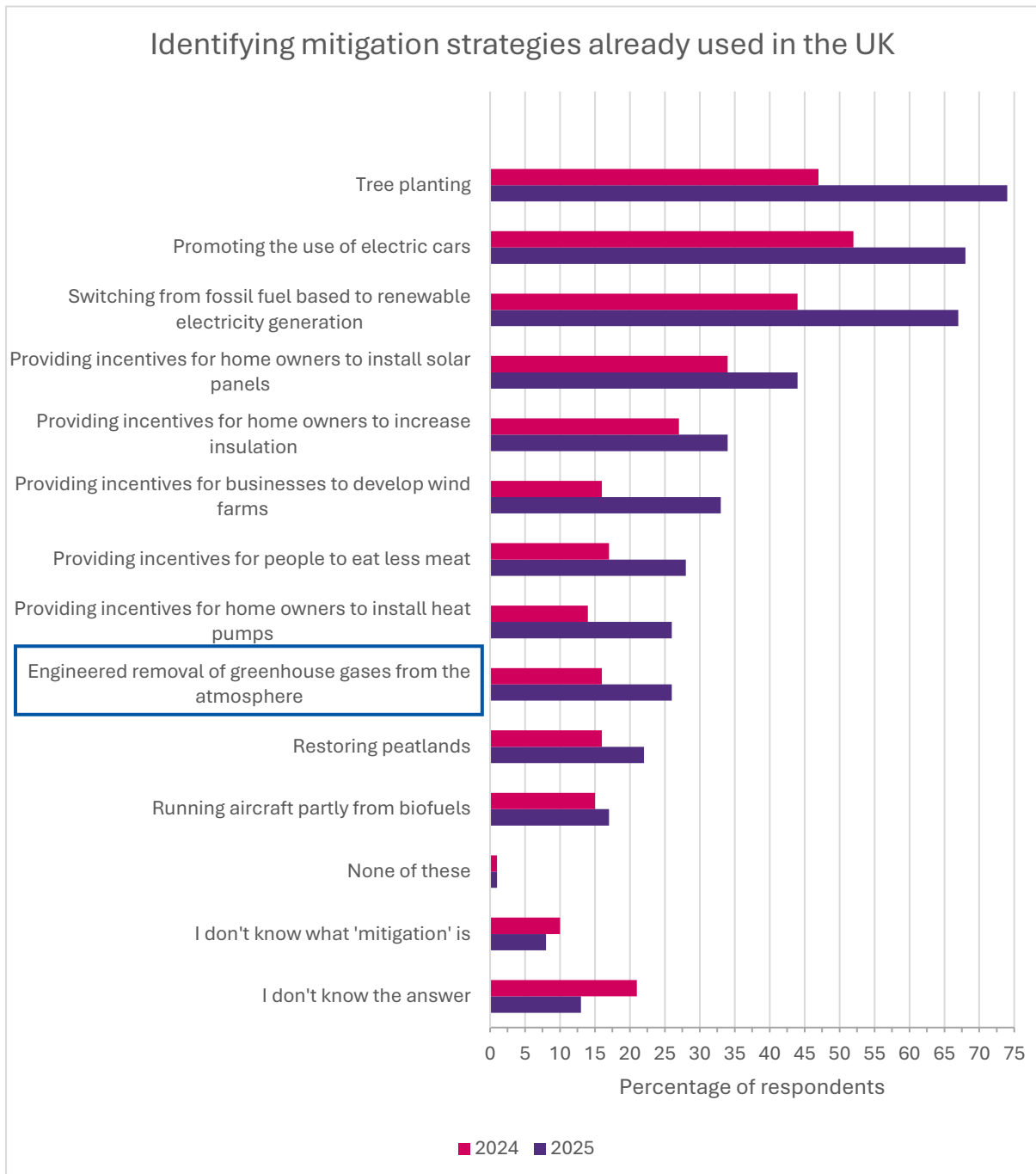
The most known mitigation strategy across the respondents was tree planting, with almost three quarters of respondents selecting it (74%). This was then followed by moving to renewable electricity generation (67%) and promoting the use of electric cars (68%).

All other answers were not selected by the majority of respondents. Only 4 in 10 (44%) realised that there were incentives for solar panels, a third knew that there were incentives for home insulation (34%) and businesses to develop wind farms (33%). The least known incentives were running aircraft partly on biofuel (17%) and restoring peatlands (22%).

All suggested mitigation strategies saw an increase in respondents choosing them from 2024, potentially indicating an increase in awareness of current mitigation strategies.

There was a reduction in the number of respondents who selected either of the 'I don't know' options compared to 2024. The proportion of students admitting that they do not know what mitigation is (8%) is much smaller than in Q31 and Q56 where 24% and 17% of respondents admitted this. This could be for a number of reasons: Respondents can work out the

definition of mitigation from the multiple-choice options provided, they guess the answers, or there is also the possibility that the question randomisation results in some sets of questions being answered by a better calibre of students.



Q39. n(2025) = 91
Incorrect answer is boxed.

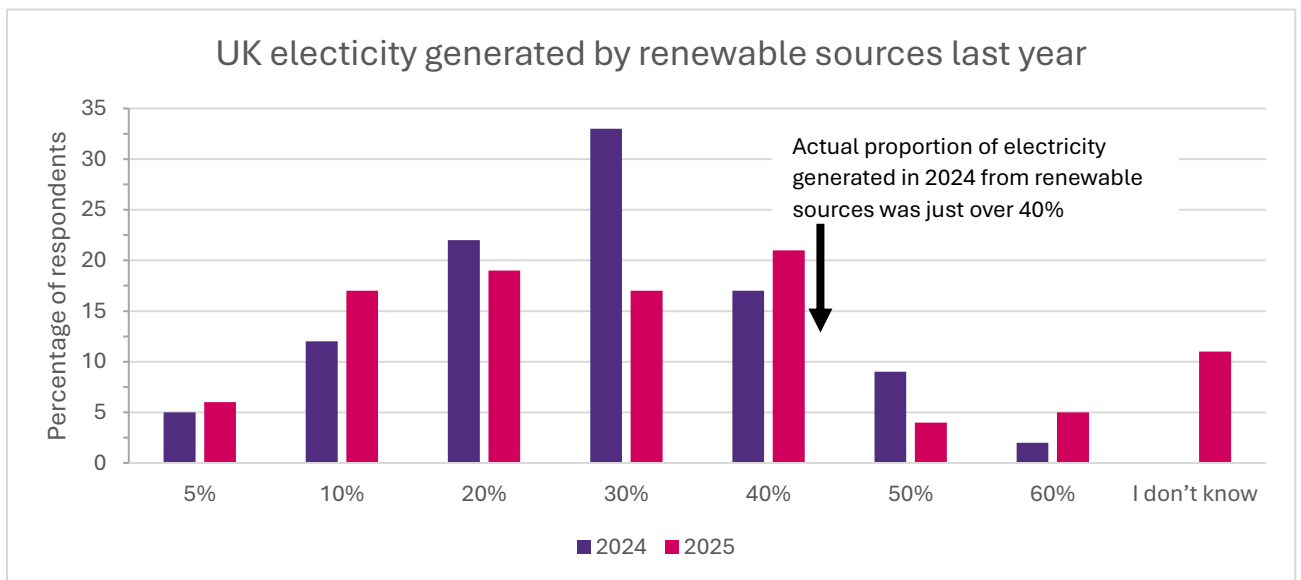
7.10 Perceptions of UK's renewables contribution (Q57)

In 2024, renewable energy sources contributed 43.8% of the UK's energy mix²³ so 40% was the closest option.

Unlike Q37 which asked about fossil fuels, or the answers to this question last year, there isn't a clear consensus amongst respondents. Although the most popular (21%) answer was the 'correct' or closest answer of 40% of electricity being generated from renewable resources, 10%, 20% and 30% were all chosen by slightly smaller proportions of respondents (17%, 19% and 17% respectively).

However, this does mean that the majority of respondents underestimated the amount of electricity generated in the UK from renewable resources. Almost 3 in 5 respondents (59%) answered with 30% or less electricity coming from renewable resources. Just under 1 in 10 of respondents (9%) selected 50% or 60%. 11% of respondents admitted that they didn't know.

This underestimation of the role renewable sources play in the UK energy mix is similar to that seen in 2024 and signifies poor communication of positive milestones or tipping points the UK has made via commitments to greening our energy supplies. Limited awareness of green infrastructure in schools highlights a missed connection to green careers, with many students unaware of the sectors available to them.



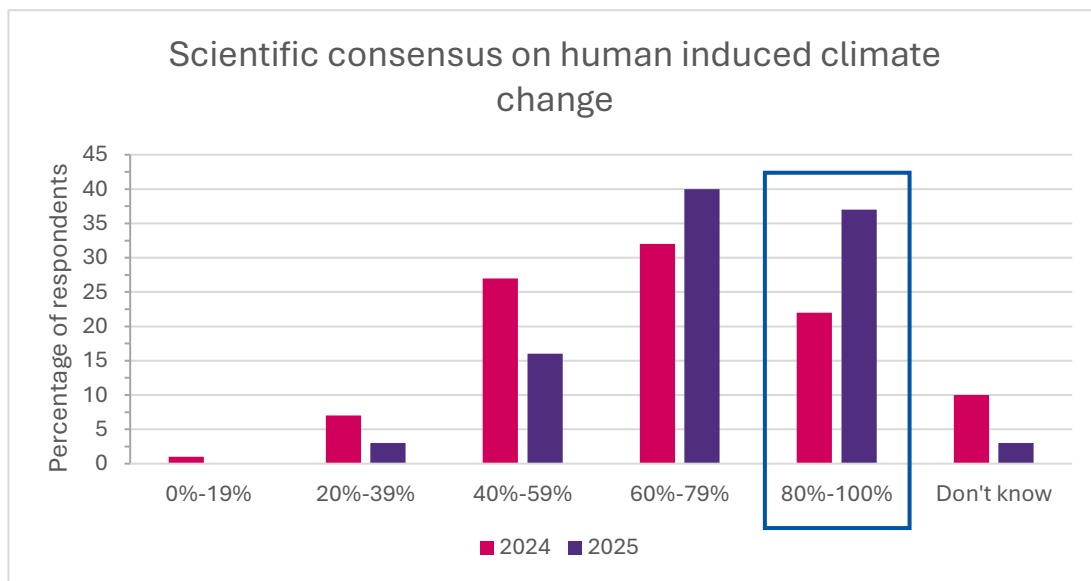
Q57. n(2025) = 100

8. Communication

8.1 Estimation of scientific consensus (Q35)

The consensus within the scientific community is accepted to be over 97% and probably over 99%. Over a third of the respondents (37%) correctly identified the 80%-100% consensus category, which is a big improvement on the 22% who identified the correct answer in last year's survey. However, the most popular answer was 60%-79%, which also saw an increase in the proportion of students selecting it from last year.

Overall, just under three fifths of respondents (59%) underestimated the consensus on human induced climate change, a decrease from the 67% in 2024.



Q35. $n(2025) = 92$
Correct answer is boxed.

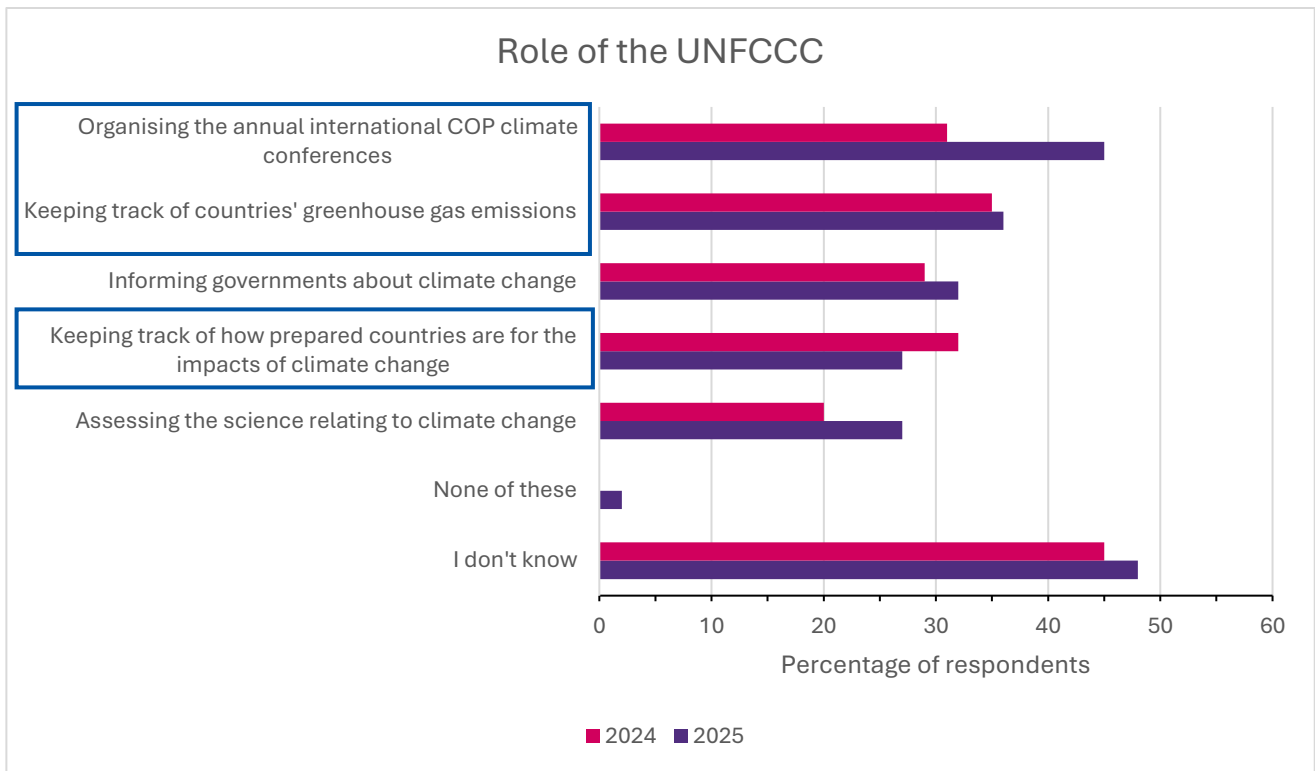
8.2 The role of the United Nations Framework Convention in Climate Change (UNFCCC) on global climate policy (Q40)

We have seen a distinct increase in the number of students who are aware that the UNFCCC organise the annual COP conferences, however the majority of respondents remain unaware of the role of the UNFCCC in global climate change policy.

More respondents responded that they didn't know the answer (48%) over selecting any other option. After this, the most popular chosen answers were correct answers, with 45% correctly identifying that the UNFCCC are responsible for organising COP conferences and 36% correctly identifying that the UNFCCC keep a track of GHG emissions.

The other correct answer, 'keeping track of how prepared countries are for the impacts of climate change' was chosen by just over a quarter of respondents (27%), the same proportion of respondents who incorrectly chose 'assessing the science relating to climate change'. The incorrect answer that the UNFCCC are responsible for 'informing governments about climate change' was selected by 32% of respondents. These incorrect roles are those

of the International Panel on Climate Change (IPCC) which would suggest the different global policies and groups are getting mixed up in respondents understanding.



Q40. n(2025) = 94
Correct answers are boxed.

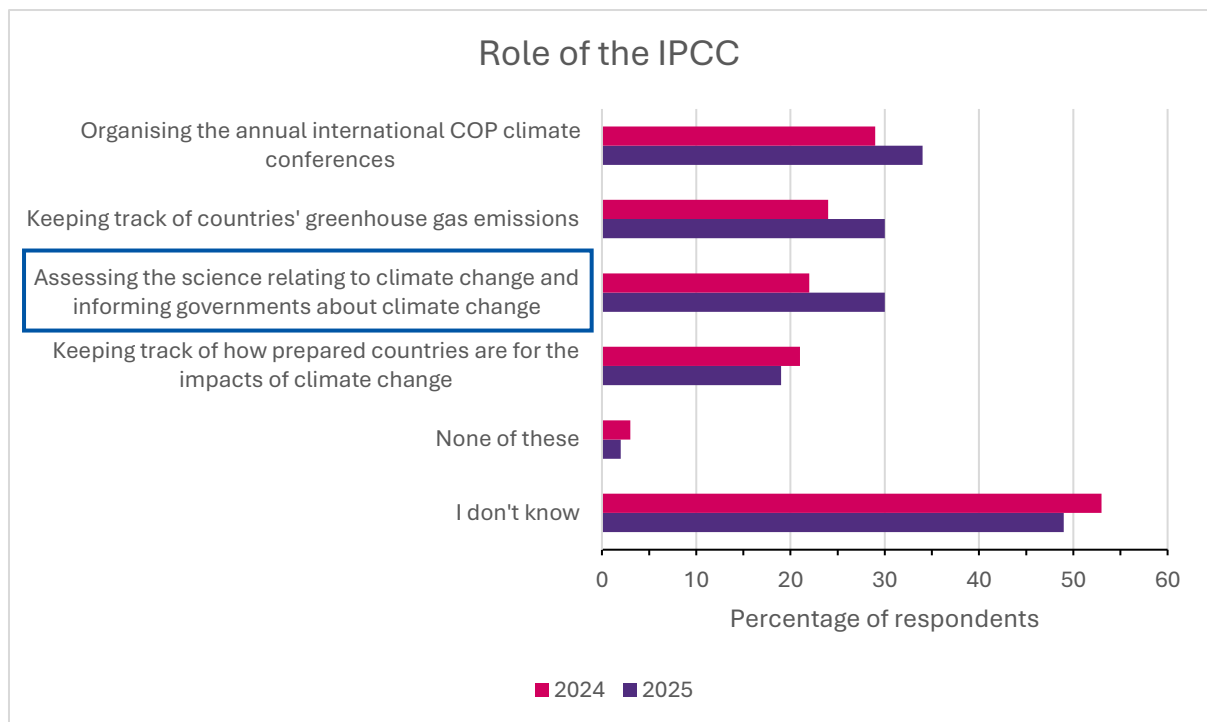
8.3 The role of the Intergovernmental Panel on Climate Change (IPCC) in Global Climate Policy (Q60)

Answers to this question reinforce the finding that there is little knowledge about the IPCC, and the UNFCCC as seen in the previous question, Q40.

The most common response to this question and selected by almost half of respondents (49%) was 'I don't know', then followed by two incorrect answers. Just over a third of respondents (34%) answered with organising COP conferences and 30% voted for tracking CO₂ emissions, both of which are responsibilities for UNFCCC rather than IPCC. Assessing the science relating to climate change and informing governments on this is the only correct answer and was selected by 30% of respondents respectively.

The least selected answers include keeping track of countries preparedness and those identifying none of these, chosen by 19% and 2% respectively.

Respondents do not recognise the IPCC as a definitive source of accurate information about climate change.



Q60. n(2025) = 88
Correct answers are boxed.

8.4 Trust in information sources (Q20)

This question has been altered from previous years, with the addition of geography teachers.

The sources of information that stand out as they seem to be trusted by respondents a lot or a little are science (82%) and geography teachers(73%), the BBC (77%), the Met Office (67%), TV news (72%), parents and guardians (67%), the UNFCCC (69%) and the IPCC (65%) despite lack of knowledge of who the UNFCCC and IPCC are and what they do shown in the question Q40 and Q60, and the World Meteorological Association (64%). The high level of trust in relatively unknown sources of the IPCC and UNFCCC amongst these respondents is particularly surprising as the 5 W's is often an approach taught to evaluate sources, the first often being who!

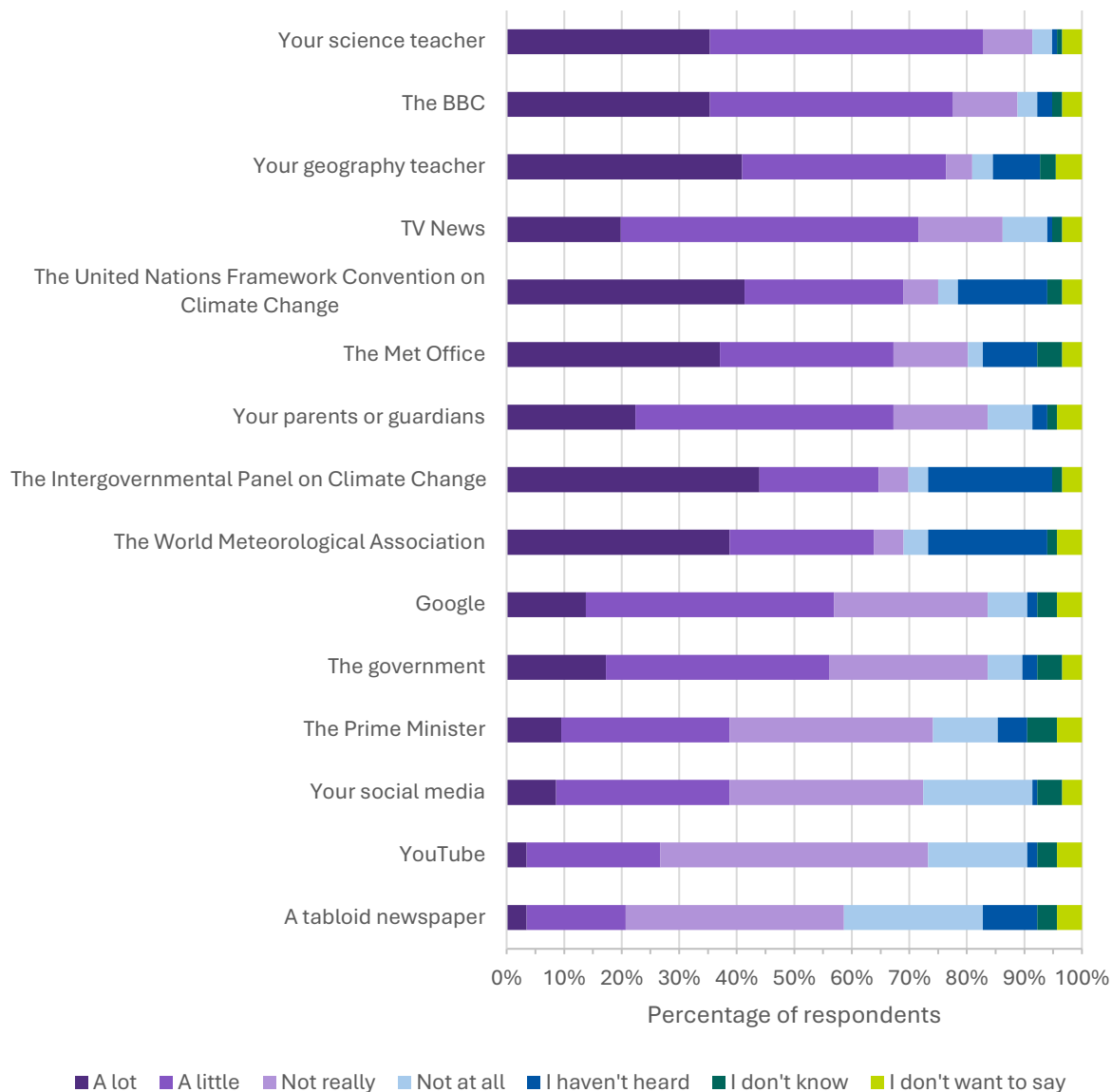
It is interesting that trust in the Prime Minister is 'little'(29%) or 'not really' there (35%), however confidence in the government as a whole is higher, with 17% of school leavers trusting it 'a lot' and 38% 'a little'.

On the other hand, YouTube, tabloid newspapers and social media stick out as respondents seem to have the least trust in them with 24% not trusting in tabloid newspapers at all and 38% not really trusting them. YouTube is not trusted at all by 17% of respondents with 47% not really trusting it and 19% of respondents not trusting social media at all and 34% not really trusting it.

Comparing this to the results in 2024, the source that has seen the biggest decrease in trust from respondents is YouTube, with trust (a lot and a little combined) falling from 45% in 2024 to 26% in 2025. The largest increases in trust from 2024 were for the UNFCCC, Met Office , IPCC, BBC and WMO where the increases in 2025 were increases of 26%, 21%, 20%, 19% and 19% respectively. Although small, there is a notable increase in trust in social media.

Overall, respondents appear to have a good understanding of where to find more reliable information, avoiding sources known to be more opinion-driven, biased, or lacking evidence, such as social media (only 39% trusting it a lot or a little). However, an increasing trust in social media and other sources highlights the need to continued and improved teaching of media literacy in schools.

Trust in information sources



Q20. $n(2025) = 116$. Except for $n(\text{geography teacher}) = 110$

2024 Percentage	A lot	A little	Not really	Not at all	I haven't heard	I don't know/don't want to say
A tabloid newspaper	6	15	15	36	11	17
YouTube	9	36	18	24	3	10
Your social media	9	24	32	17	4	13
The Prime Minister	10	16	24	30	3	18
The government	11	32	26	17	3	11
Google	22	38	13	11	5	11
The World Meteorological Association	26	19	10	8	24	13
The Intergovernmental Panel on Climate Change	31	14	11	7	23	14
Your parents or guardians	19	32	23	10	6	10
The Met Office	25	21	16	13	12	13
The United Nations Framework Convention on Climate Change	27	16	8	14	23	13
TV News	14	46	17	9	2	12
The BBC	27	31	23	9	2	9
Your science teacher	31	45	13	2	2	7

9. Key Takeaways by Question

9.1 Demographic

A few key highlights from the over survey participations and demographic questions:

- 2025 was the first year the survey was not organised from Ipsos and instead RMetS was responsible for collecting data using SurveyMonkey. Despite this, more data in England, Wales and particularly Scotland was collected.
- The data collected is biased somewhat, particularly to Independent girls' schools in England.

9.2 Baseline knowledge (core questions)

- Just under half the respondent remember learning about climate change 'recently' (in the last year or two), with England having the highest proportion of respondents answering in this way. Scotland is the country where the highest proportion of participants responded that they have never been taught about climate change. (Core 1)
- There is still a large misunderstanding over how much the Earth has warmed (and therefore the understanding of the 1.5/ 2°C targets). The majority of respondents overestimated or did not know the degree of global warming which currently stands at 1.3°C. Nationally, Scotland had the highest proportion of respondents overestimating the warming, and Wales had the most underestimating the warming. (Core 2)
- Overall, respondents were able to rank the contributions from different activities to current global warming just about right. The largest and smallest contributors, 'industry, electricity and heat production' and natural changes respectively were well identified. The ranking of 'deforestation, agriculture and other land use changes', 'transport (cars, lorries, planes, trains, ships etc)' and 'production of plastic and management of plastic waste' was very close. This may be due to lack of acknowledgement of global emissions compared to local and also the emphasis put on the impact of plastic. (Core 3)
- There was an increase in level of concern around climate change, and an increase in those that are 'very' concerned. Concern is higher amongst those identifying as female. Indicated that climate anxiety needs to be considered in teaching going forward. Concern is lowest in Wales, aligning with Wales being the country underestimating the global temperature increase the most, and highest in England. (Core 4)
- The majority of respondents think climate change will impact their life, an increase on last year. Wales surprisingly had the largest proportion of participants acknowledging the highest level of impact, and Scotland had the smallest proportion of respondents acknowledge the impact (a lot and a little combined). (Core 5)
- Comparing perception of impact on life and concern, there is a link between participants who acknowledge an impact and who have a level of concern around climate change. However, answering with the high level of impact does not always link to the highest level of concern. Care needs to be taken to manage levels of climate anxiety. (Core 4/5)

9.3 Causes of climate change

- There is an improvement in the understanding of the relationship between weather and climate from last year's survey. (Q51)

- 8 in 10 respondents were able to correctly define climate change. The second most selected, but incorrect answer, was very similar to the UNFCCC definition for climate change. This highlights the importance for consistent universal definitions across education - subjects and assessment authorities. (Q43)
- Understanding the year-to-year climate variability and the drivers for this variability amongst respondents is poor, with 79% of respondents underestimating the role of large scale weather patterns. This would suggest looking at extremes, or the deviation from the norm, is prioritised at the detriment of understanding the normal variation. (Q13)
- Carbon dioxide and methane are the most identified greenhouse gases. There is much less awareness of nitrous oxide and water vapour, identified by only 39% and 26% of respondents respectively and in fact some non-GHGs gases associated with air quality and environmental issues were identified incorrectly. More awareness of all greenhouse gases is needed, especially water vapour. (Q22)
- The awareness of natural gas as a fossil fuel is much lower than coal and oil. 2024 saw the closure of the last coal fuelled power station and therefore resources need updated to increase emphasis on natural gas and ensure any case studies featuring coal fired power stations are outside the UK.
One fifth of respondents incorrectly identified nuclear fuel as a fossil fuel, highlighting confusion between non-renewable and fossil fuels. (Q14)
- The majority of respondents correctly identified China is currently contributing the most GHGs through fossil fuel combustion. The second most common answer, the USA, saw an increase in the proportion votes compared to 2024, perhaps influenced by political changes. (Q25)
- The sources of CO₂ are becoming more well known, with all correct answers seeing an increase from last year. However, there seems to be some confusion between sources of CO₂ and methane.
Again, nuclear is misunderstood - it is ranked 9th but the emissions are very small in comparison to most of the options. (Q42)
- There is more uncertainty in sources of methane, with burning of fossil fuels being the second ranked activity and a lack of knowledge of large contributors such as rice farming. (Q32)
- A majority of respondents overestimated China's historical contributions to GHG emissions, with the collective group ranking it in first place ahead of the USA. This suggests respondents have a better understanding of current emission compared to historic emissions. Brazil's contributions were underestimate by the largest proportion, indicating that respondents were perhaps thinking about contribution from fossil fuel combustion and less so from deforestation. The lack of awareness of historical emissions raises an issue around climate justice – will these respondents therefore put pressure for action on countries who perhaps have not had such impact as others. (Q34)
- Similarly to historical emissions, respondents are less aware of emissions per capita, especially in countries that are less commonly studied in schools such as Saudi Arabia. (Q44)
- There is an improvement in knowledge around the exponential increase of carbon dioxide concentrations in the atmosphere. (Q52)
- The majority of respondents underestimate human contribution to current climate change, with the poorest of understandings in England. This may be due to the requirement to teach natural causes of climate change in the KS4 geography curriculum. (Q12)

- A lack of hope is indicated in the responses when asked about the impact of stopping GHG emissions. Despite the majority of students selecting one of the correct answers, there is a reduction in respondents answering that the global temperature may start cooling, and an increase in those selecting that it will stay the same. (Q23)
- Overall, respondents identified factors that can affect the Earth's temperature well, however significant numbers incorrectly think earthquakes and phases of the moon have an impact on the temperature. (Q53/Q24)

9.4 Evidence and impacts of climate change

- This year saw an increase in respondents describing the Earth's system as fragile, acknowledging that small changes to the Earth's temperature can result in large and rapid changes in the climate. This aligns with the increase in concern shown in the core questions (Q61).
- A greater portion of participants selected the correct impacts of a warming climate, however there was also an increase in those selecting the common misconception that Tropical Cyclones are increasing in frequency. Again, there was confusion over air quality with 6 in 10 respondents identifying it as an impact of a warming climate. (Q45)
- Awareness of future projection of temperature amongst the respondents seems to be focused around countries where multiple different factors challenge populations, such as lower levels of development. China and Bangladesh were more widely thought to have the fastest projected warming over the correct answer of Canada. (Q28)
- Vulnerability to climate change is poorly understood, with respondents collectively putting Brazil above the correct answer of Sudan. This may be due to respondents mixing up cause, impact and vulnerability – it is widely known that Brazil has very high levels of deforestation. (Q51)
- Changes to extreme weather events due to climate change are understood by the majority of respondents. (Q15)
- Some respondents are able to identify the areas warming the fastest, with more than a third identifying the Arctic as the fastest warming region. However, when asked the same questions in terms of countries, the results were not as good with Greenland and China getting a very similar proportion of votes. This again may indicate a focus, or higher number of case studies on, change in countries in warmer climate and those with multiple challenges like lower development. (Q59/Q47)

9.5 Adaptation and Mitigation

- The majority of respondents (6 in 10) could identify the correct definition for adaptation. (Q50)
- Despite the awareness of the definition, respondents struggled to identify adaptation strategies from a list, with nature-based solutions particularly poorly recognised. (Q16)
- Conversely to adaptation, the majority of respondents either chose the wrong definition for mitigation or answered that they 'didn't' know. (Q31)
- Similarly to adaptation respondents struggled to pick out the correct mitigation strategies from a provided list, with nature-based solutions ending up towards the bottom of the list again. Installing heat pumps was the least know mitigation strategy. (Q56)
- There is a lot of confusion between mitigation and adaption strategies overall. (Q16/Q56)

- Overall, there is a poor understanding of the relative GHG contribution of personal actions. (Q18/Q38/Q58/Q48/Q29). A focus on personal carbon footprints can generate feelings of guilt, lack of agency, or disengagement whilst, as we have highlighted, focussing on actions which in practice have little impact on greenhouse gas emissions. This highlights the need to transfer focus from personal carbon footprints to the footprints or emissions of good, services, organisations and sectors.
- The understanding of net-zero has seen improvements since 2024. However, the definition is still known by fewer than 50% of respondents which is surprising considering the widespread use of the term. (Q30)
- The 1.5/ 2°C targets are not widely understood amongst respondents, and the proportion of respondents selecting the correct definition has decreased since last year (and we saw an increase in those responding that they don't know the answer). This lack of knowledge may be due to headlines early in 2025 about surpassing 1.5°C for a single year in 2024. (Q49)
- Despite the lack of understanding of net-zero, respondents showed an understanding of activities which have the lowest footprint e.g. walking to school and picking an apple from a tree. However, more than a quarter of respondents chose to answer that an egg from a free-range chicken had no carbon footprint, suggesting confusion about different sustainability-related issues. (Q33)
- The process of carbon capture and storage was identified by the majority of respondents (7 in 10). However, there is less knowledge around its classification as a mitigation strategy and it being part of the UK's net zero strategy. (Q19)
- Respondents seem unaware that all industries can contribute to mitigation efforts. The industries that are commonly pointed at for their large emissions such as the agriculture and transport sector are more widely known about, but some other large industries are overlooked by the majority of respondents, such as gaming, social media and telecommunication, all industries that the modern world relies on heavily. This reinforces the message of missing awareness of opportunities for green careers. (Q21)

9.6 Climate change in the UK

- Despite the largest proportion of respondents being able to identify winters in the UK are getting warmer and wetter, an increase on last year's results, there was also an increase in those thinking winters are getting colder and wetter. (Q26)
- The trend in UK summer weather is far better known about, with a large majority identifying summers are getting hotter and drier. However, the majority is slightly smaller than last year, and there was a small increase in those saying UK summers are getting hotter and wetter. (Q27)
- Despite a large majority of respondents knowing that sea levels are rising due to melting land ice, more respondents incorrectly identified that melting sea ice is contributing to sea level rise, more so than thermal expansion and sinking land. Understanding of thermal expansion and displacement is an opportunity for cross-disciplinary teaching which is being missed. The answers this year again indicated that there is a misconception over higher rainfall amounts increasing the sea levels. (Q41)
- The majority of respondents correctly identified the risks for the UK associated with climate change, however the majority of respondents also identified risk where there isn't a risk at all, for example hurricanes and tsunamis. (Q55)
- When costing adaptation and mitigation in the UK, the most popular answer amongst respondents was correct, identifying that adaptation will be more costly. However,

there was a larger increase in the proportion of respondents saying both processes would cost about the same. (Q17)

- As seen with mitigation, respondents are not aware that all sectors need to adapt to climate change impacts. Again, the more commonly discussed sectors such as agriculture and transport are most commonly identified amongst participants as sectors in the UK that need to adapt, but sectors such as healthcare and telecommunications were not commonly selected by respondents. Again, there is a lack of awareness of skills and careers that need to adapt. (Q36)
- The majority of students are aware of the renewable energy sources currently used by the UK. Scotland has the highest awareness of wind energy in particular, especially that generated onshore. However, more than a third of respondents identified geothermal energy and nuclear fusion as current source of energy in the UK which is incorrect at present. It again suggests a broad misunderstanding of nuclear power. (Q46)
- Collectively the respondents overestimated the UK's reliance on fossil fuels, with the most popular answer suggesting 60% of UK energy was derived from fossil fuels in 2024. This shows that the UK progress is has been poorly communicated and not included in teaching - using statistics like this enable climate education to remain hopeful. (Q37)
- Conversely, the majority of respondents underestimate the production of energy from renewable sources, again highlighting a missed opportunity to keep classroom teaching hopeful but also to highlight the career opportunities open to them. (Q39)
- There is also poor awareness of the mitigation methods currently used in the UK. Tree planting, electric vehicles and switching to renewable energy sources top the list of answers and therefore are the most widely known strategies used by the UK. However, there is a lot less awareness around incentives given for other strategies such as installing solar panels and heat pumps and natural-based solutions such as restoring peatlands. (Q57)

9.7 Communications

- The scientific consensus on human induced climate change is better understood amongst participants this year compared to 2024, however the majority of participants still underestimate the consensus. (Q35)
- Awareness around global climate policy is low. When asked about the role of the UNFCCC, the most popular answer is 'I don't know'. 4 in 10 students are aware that the UNFCCC is responsible for COP conferences, however its other roles are less well known. (Q40)
- Awareness of the IPCC is also very low. Again, when asked its role the most popular answer was 'I don't know'. There is a lot of uncertainty and confusion between the UNFCCC and IPCC. (Q60)
- Overall, the respondents have indicated that they have a good grasp of sources that would be considered more trustworthy, for example the IPCC, science and geography teachers and the BBC, and those that are seen as less trustworthy, more biased sources such as social media, YouTube, the Prime Minister and a tabloid newspaper. Despite not understanding the IPCC and UNFCCC there is trust in these sources. (Q20)

Appendix 1: Questions and Answer Options

Presented here is the CLS 2025. All questions up to section 5 were completed by every student. All questions were mandatory so respondents could not skip any of the questions presented, including the random set they were assigned.

Questions with * at the end of them are questions that were slightly different to those in the survey in 2024. Questions with ** indicate a completely new question for 2025.

Section 1 – Welcome

This survey will take between 5 and 8 minutes to complete.

Why are we collecting anonymous data on climate literacy?

The Climate Literacy Survey aims to conduct research to understand the level of climate literacy (understanding of the Earth's climate and the impact of global warming), amongst those leaving secondary education. This survey is therefore for **year 11 (England and Wales), year 12 (N. Ireland) and S4(Scotland) students.**

We want to track the impact of changes to the curriculum and the way climate change is taught. We can only do this effectively if we know certain information about you - current secondary school students.

How are we collecting this anonymous data, and who will see it?

We are using SurveyMonkey to collect this information. There is no way to identify any individual respondents either in the data within SurveyMonkey or any analysis performed. Your data will be held in accordance with the provisions of the Data Protection Act 1998. As an additional measure, we won't report data for any groups smaller than 10 people - this may mean we need to combine categories with smaller numbers where appropriate, or that we cannot report for certain groups yet.

The results will be analysed and we will publish an overview of the data on the web pages of the Society.

What information are we asking you to share anonymously with us?

We are asking you to answer **4 questions about yourself** and **2 about the school you attend.** You may ask for help from your teacher about the school questions.

All 10 questions after that will be climate related questions. You will not receive feedback from your survey, or be informed what the right or wrong answers are, so please answer honestly. These **should be done on your own** and **without referring to any online or other sources.** Your teacher won't be told whether you got the answers right or wrong either.

By continuing with this survey you agree to RMetS using any information you provide as described above.

Section 2 - About you

Q1. Which of the following best describes your gender?

- Boy
- Girl
- Non-binary
- My gender is not listed
- Prefer not to say

Q2. Which of the following best describes you?

- | | |
|--|---|
| <input type="checkbox"/> White British | <input type="checkbox"/> East African Asian |
| <input type="checkbox"/> White Irish | <input type="checkbox"/> Any other Asian background |
| <input type="checkbox"/> Other White European background | <input type="checkbox"/> White and Black Caribbean |
| <input type="checkbox"/> Any other White background | <input type="checkbox"/> White and Black African |
| <input type="checkbox"/> Black Caribbean | <input type="checkbox"/> White and Black Asian |
| <input type="checkbox"/> Black African | <input type="checkbox"/> White and Asian |
| <input type="checkbox"/> Any other Black background | <input type="checkbox"/> Any other Mixed background |
| <input type="checkbox"/> Indian | <input type="checkbox"/> Arab |
| <input type="checkbox"/> Pakistani | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Bangladeshi | <input type="checkbox"/> Prefer not to say |
| <input type="checkbox"/> Chinese | |

Q3. How old are you?

- Younger than 11
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- Older than 17

Q4.

Some young people are eligible to have free school meals at school if their parent(s) or carer(s) receives a type of benefit or benefits. This means they do not have to pay for their school meals.

Do you currently get free school meals or vouchers for free school meals?

- Yes
- No
- Don't know
- Prefer not to say

Section 3 – About your school

Please ask your teacher to help you answer this section if you do not know the answer.

Q5. What is your school's postcode?

Free text box

Q6. What type of school do you attend? **

- Academy
- Maintained school (follows national curriculum and local authority controlled)
- Independent school (private/fee-paying)
- Special school
- College
- Other (please specify)

Section 4 - Core Climate change questions

The questions from this point should be **answered on your own** and without referring to any online or other sources.

You will not receive feedback from your survey, or be informed what the right or wrong answers are, so please answer honestly. Your teacher won't be told whether you got the answers right or wrong either. There is a do not answer option for all questions which should be used instead of guessing.

Q7. How old were you when you were last taught about climate change in a lesson at school?

Please select one option only.

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> 17 years old | <input type="checkbox"/> 11 years old |
| <input type="checkbox"/> 16 years old | <input type="checkbox"/> Younger than 11 years old |
| <input type="checkbox"/> 15 years old | <input type="checkbox"/> Never |
| <input type="checkbox"/> 14 years old | <input type="checkbox"/> Can't remember |
| <input type="checkbox"/> 13 years old | <input type="checkbox"/> Prefer not to say |
| <input type="checkbox"/> 12 years old | |

Q8. How much do you think the climate of the Earth has warmed since 1850, if at all?

Please select your answer in degrees(°) Celsius from the drop down list.

Your answer can range from zero (0) to four (4) degrees(°) Celsius.

- | | | |
|--------------------------------|--------------------------------|--|
| <input type="checkbox"/> 0.0°C | <input type="checkbox"/> 1.6°C | <input type="checkbox"/> 3.2°C |
| <input type="checkbox"/> 0.1°C | <input type="checkbox"/> 1.7°C | <input type="checkbox"/> 3.3°C |
| <input type="checkbox"/> 0.2°C | <input type="checkbox"/> 1.8°C | <input type="checkbox"/> 3.4°C |
| <input type="checkbox"/> 0.3°C | <input type="checkbox"/> 1.9°C | <input type="checkbox"/> 3.5°C |
| <input type="checkbox"/> 0.4°C | <input type="checkbox"/> 2°C | <input type="checkbox"/> 3.6°C |
| <input type="checkbox"/> 0.5°C | <input type="checkbox"/> 2.1°C | <input type="checkbox"/> 3.7°C |
| <input type="checkbox"/> 0.6°C | <input type="checkbox"/> 2.2°C | <input type="checkbox"/> 3.8°C |
| <input type="checkbox"/> 0.7°C | <input type="checkbox"/> 2.3°C | <input type="checkbox"/> 3.9°C |
| <input type="checkbox"/> 0.8°C | <input type="checkbox"/> 2.4°C | <input type="checkbox"/> 4°C |
| <input type="checkbox"/> 0.9°C | <input type="checkbox"/> 2.5°C | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> 1.0°C | <input type="checkbox"/> 2.6°C | <input type="checkbox"/> Prefer not to say |
| <input type="checkbox"/> 1.1°C | <input type="checkbox"/> 2.7°C | |
| <input type="checkbox"/> 1.2°C | <input type="checkbox"/> 2.8°C | |
| <input type="checkbox"/> 1.3°C | <input type="checkbox"/> 2.9°C | |
| <input type="checkbox"/> 1.4°C | <input type="checkbox"/> 3.0°C | |
| <input type="checkbox"/> 1.5°C | <input type="checkbox"/> 3.1°C | |

Q9.

Below is a list of global factors that have been mentioned as possible contributors to climate change. How much, if at all, do you think the following have contributed to recent (in the last 150 years) climate change?

Rank the factor that you think has contributed MOST to climate change, down to the factor that you think has contributed the LEAST to climate change. You have to give a different number for each factor listed below, from 1 (MOST) to 5 (LEAST).

- | | | | |
|----------------------|---|--------------------------|--------------|
| <input type="text"/> | Natural changes such as volcanoes and variations in the Sun and Earth's orbit | <input type="checkbox"/> | I don't know |
| <input type="text"/> | Industry, electricity, and heat production | <input type="checkbox"/> | I don't know |
| <input type="text"/> | Deforestation, agriculture and other land use changes | <input type="checkbox"/> | I don't know |
| <input type="text"/> | Transport (cars, lorries, planes, trains, ships etc) | <input type="checkbox"/> | I don't know |
| <input type="text"/> | Production of plastic and management of plastic waste | <input type="checkbox"/> | I don't know |

Q10. How concerned are you about climate change, if at all?

Please select one option only.

- Very concerned
- Fairly concerned
- Not very concerned
- Not at all concerned
- Don't know
- Prefer not to say

Q11. In your lifetime, to what extent do you think climate change will affect you personally, if at all?

Please select one option only.

- A great deal
- Quite a bit
- Not very much
- Not at all
- Don't know
- Prefer not to say

Section 5 – Randomly assigned question sets

These questions should be **answered on your own** and without referring to any online or other sources.

You will not receive feedback from your survey, or be informed what the right or wrong answers are, so please answer honestly. Your teacher won't be told whether you got the answers right or wrong either. There is a do not answer option for all questions which should be used instead of guessing.

Set 1

Q12. The average global temperature has increased since 1850. What proportion of this temperature increase have humans caused?

Please select one option only.

- 0-19%
- 20-39%
- 40-59%
- 60-79%
- 80-100%
- I don't know

Q13. The global weather mainly varies from year to year because of...

Rank the following in order from **BIGGEST (1)** to **SMALLEST (4)**:

- | | | |
|----------------------|--|---------------------------------------|
| <input type="text"/> | Changes in the Sun | <input type="checkbox"/> I don't know |
| <input type="text"/> | Changes to the Earth's orbit | <input type="checkbox"/> I don't know |
| <input type="text"/> | Large scale weather patterns (such as El Nino) | <input type="checkbox"/> I don't know |
| <input type="text"/> | Changes in the concentration of greenhouse gases in the atmosphere | <input type="checkbox"/> I don't know |

Q14. Which of the following are “fossil fuels”?

Select as many as you want:

- Coal
- Oil
- Natural Gas
- Nuclear power from uranium
- Bioenergy from crops or wood
- Wind
- I don't know

Q15. Complete the following sentence: Climate change will make...

Please select one option only.

- Some extreme weather events more frequent, intense and impactful
- All extreme weather events more frequent
- All extreme weather events more impactful
- All extreme weather events more frequent, intense and impactful
- Little or no difference to extreme weather events in most places
- I don't know

Q16. Which of the following are strategies for adapting to climate change?

Select as many as you want:

- Building flood barriers
- Using less plastic
- Introducing clean air zones in towns and cities
- Installing window shades
- Installing solar panels
- Installing heat pumps
- Planting trees in town and cities
- Planting trees in the countryside
- Developing salt marshes
- Restoring peatland
- Switching to electric vehicles
- I don't know what 'adapting' means
- I don't know the answer

Set 2

Q17. Will it cost more for...

Please select one option only.

- a) The UK to adapt to the impacts of climate change
- b) The UK to implement globally agreed policies to limit climate change, for example by limiting greenhouse gas emissions
- c) a & b cost about the same
- d) I don't know

Q18. Which of the following reduces greenhouse gas emissions more?

Please select one option only.

- a) Recycling
- b) Eating a vegan/plant based diet
- c) The reduction is the same for options a & b
- d) I don't know

Q19. What is carbon capture and storage?

Select as many as you want:

- A way of adapting to climate change
- A way of mitigating climate change
- The process of trapping carbon dioxide as it is emitted and storing it in a deep and secure location
- A way of capturing the methane emitted by agriculture and storing it in a deep and secure location
- Part of the UK's net zero strategy
- Large scale removal of carbon dioxide from the atmosphere
- I don't know

Q20. How much do you trust the following as a source of information about global warming? *

Please select one option for each statement.

	A lot	A little	Not really	Not at all	I haven't heard of this source	I don't know how much I trust this source	I don't want to say
The Prime Minister	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your science teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your geography teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The BBC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Met Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YouTube	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A tabloid newspaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV news	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your social media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your parents or guardians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Intergovernmental Panel on Climate Change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Google	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The World Meteorological Association	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The United Nations Framework Convention on Climate Change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q21. Which of the following industries could help mitigate climate change?

Select as many as you want:

- Agriculture
- Building (construction)
- Gaming
- Car manufacture
- Tourism
- Healthcare
- Telecommunications (e.g. Wifi and phone networks)
- Transport
- Finance
- Education
- Media or social media
- I don't know what 'mitigate' means
- I don't know the answer

Set 3

Q22. Which of the following are greenhouse gases?

Select as many as you want:

- Water vapour (H₂O)
- Methane (CH₄)
- Carbon dioxide (CO₂)
- Oxygen (O₂)
- Nitrous oxide (N₂O)
- Sulfur dioxide (SO₂)
- Carbon Monoxide (CO)
- None of these
- I don't know

Q23. How would temperatures around the world respond over the next few decades if people were to stop greenhouse gas emissions today?

Please select one option only.

- Keep warming
- Stay about the same
- Start cooling
- I don't know

Q24. How much can each of the following affect the average temperature of the Earth?

Please select one option for each statement.

	A little	A lot	Not at all	I don't know
How light or dark coloured the Earth's surface is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much cloud there is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much dust there is in the atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Changes in the
Earth's orbit
around the Sun

Q25. Which of the following countries emits the largest amount of greenhouse gas each year from the burning of fossil fuels?

Please select one option only.

- China
- USA
- Canada
- Australia
- Saudi Arabia
- UK
- All the same
- I don't know

Q26. As the global climate warms, how will the climate of the UK change during the **winter**?

Please select one option only.

- Warmer and wetter
- Warmer and drier
- Cooler and wetter
- None of these
- I don't know

Set 4

Q27. As the global climate warms, how will the climate of the UK change during the **summer**?

Please select one option only.

- Hotter and drier
- Hotter and wetter
- Cooler and drier
- None of these
- I don't know

Q28. In which of these countries is the temperature projected to increase fastest?

Please select one option only.

- UK
- Canada
- Bangladesh
- China
- I don't know

Q29. Which of the following reduces greenhouse gas emissions more?

Please select one option only.

- a) Buying green (renewable) energy
- b) Recycling
- c) Reduction is the same for options a & b
- d) I don't know

Q30. Net zero means...

Please select one option only.

- There is no carbon dioxide in the atmosphere
- There are no carbon dioxide emissions
- There are no human emissions of carbon dioxide
- Balancing human emissions and removals of carbon dioxide from the atmosphere
- The amount of carbon dioxide emitted by people doesn't increase from one year to the next
- None of these
- I don't know

Q31. What is meant by climate change mitigation? *

Please select one option only.

- Adjusting to current and future climate change.
- Minimising the increase in the concentration of greenhouse gases in the atmosphere
- I don't know what 'mitigation' is
- I don't know the answer

Set 5

Q32. Which of the following processes are sources of methane, a greenhouse gas?

Select as many as you want:

- | | |
|--|--|
| <input type="checkbox"/> Respiration | <input type="checkbox"/> Producing cement |
| <input type="checkbox"/> Decomposition | <input type="checkbox"/> Rock weathering |
| <input type="checkbox"/> Volcanoes, geological sources | <input type="checkbox"/> Wildfires |
| <input type="checkbox"/> Producing fossil fuels | <input type="checkbox"/> Rice farming |
| <input type="checkbox"/> Burning fossil fuels | <input type="checkbox"/> Landfill and waste |
| <input type="checkbox"/> Nuclear power | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Deforestation | <input type="checkbox"/> Livestock (e.g. cows) |
| <input type="checkbox"/> Melting of permafrost | <input type="checkbox"/> I don't know |

Q33. Which of the following has a zero carbon footprint?

Select as many as you want:

- | | |
|---|--|
| <input type="checkbox"/> A journey taken in an electric car | <input type="checkbox"/> An apple you've just picked from a tree |
| <input type="checkbox"/> A bottle made out of recycled glass | <input type="checkbox"/> None of these |
| <input type="checkbox"/> A Christmas tree bought from a garden centre | <input type="checkbox"/> I don't know what a carbon footprint is |
| <input type="checkbox"/> A cotton shopping bag | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> An egg from a free range chicken | |
| <input type="checkbox"/> Walking to school | |

Q34. Rank the following countries in order of the amount of carbon dioxide emitted from burning fossil fuels, land use change and forestry since 1850:

*You have to give a different number for each country listed below, from the country with the HIGHEST EMISSIONS (1) to LOWEST EMISSIONS (6). **

<input type="text"/>	China	<input type="checkbox"/>	I don't know
<input type="text"/>	USA	<input type="checkbox"/>	I don't
<input type="text"/>	Brazil	<input type="checkbox"/>	I don't know
<input type="text"/>	Russia	<input type="checkbox"/>	I don't know
<input type="text"/>	Saudia Arabia	<input type="checkbox"/>	I don't know
<input type="text"/>	UK	<input type="checkbox"/>	I don't know

Q35. What proportion of scientists do you think agree that climate change is happening because of the activities of humans?

Please select one option only.

- 0-19%
- 20-39%
- 40-59%
- 60-79%
- 80-100%
- I don't know

Q36. Which of the following industries in the UK need to adapt because of the impact that climate change is having on their business/operations?

Select as many as you want:

- Healthcare
- Agriculture
- Food supply
- Tourism
- Construction (building)
- Fishing
- Forestry
- Transport
- Telecommunications (e.g. Wifi and phone networks)
- Education
- Horticulture (gardening)
- I don't know what 'adapt' means
- I don't know the answer

Set 6

Q37. Approximately what proportion of electricity used in the UK was generated by fossil fuels last year?

Please select one option only.

- 90%
- 60%
- 50%
- 40%
- 30%
- 20%
- I don't know

Q38. Which of the following reduces greenhouse gas emissions more?

Please select one option only.

- a) Living without a dog
- b) Living without a car
- c) The reduction is the same for options a & b
- d) I don't know

Q39. Which of the following climate change mitigation strategies are already being used in the UK?

Select as many as you want:

- Tree planting
- Switching from fossil fuel based to renewable electricity generation
- Promoting the use of electric cars
- Running aircraft partly from biofuels
- Providing incentives for home owners to increase insulation
- Providing incentives for home owners to install solar panels
- Providing incentives for home owners to install heat pumps
- Engineered removal of greenhouse gases from the atmosphere
- Providing incentives for people to eat less meat
- Restoring peatlands
- Providing incentives for businesses to develop wind farms
- None of these
- I don't know what 'mitigation' is
- I don't know the answer

Q40. What important role does the United Nations Framework Convention on Climate Change (UNFCCC) play in global climate policy?

Select as many as you want:

- Organising the annual international COP climate conferences
- Assessing the science relating to climate change
- Informing governments about climate change
- Keeping track of countries' greenhouse gas emissions
- Keeping track of how prepared countries are for the impacts of climate change
- None of these
- I don't know

Q41. Which of the following contribute to relative sea level rise around the UK?

Select as many as you want:

- Melting sea ice
- Melting glaciers and ice sheets
- Expansion of sea water as it warms
- Sinking land
- Higher annual rainfall
- Coastal erosion
- Changing oceanic circulation
- The sea level isn't rising in the UK
- I don't know

Set 7

Q42. Which of the following processes are sources of carbon dioxide, a greenhouse gas?

Select as many as you want:

- | | |
|--|--|
| <input type="checkbox"/> Respiration | <input type="checkbox"/> Rock weathering |
| <input type="checkbox"/> Decomposition | <input type="checkbox"/> Wildfires |
| <input type="checkbox"/> Volcanoes, geological sources | <input type="checkbox"/> Rice farming |
| <input type="checkbox"/> Burning fossil fuels | <input type="checkbox"/> Landfill and waste |
| <input type="checkbox"/> Nuclear power | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Deforestation | <input type="checkbox"/> Livestock (e.g. cows) |
| <input type="checkbox"/> Melting of the permafrost | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> Producing cement | |

Q43. What is the best definition of climate change? *

Please select one option only.

- An increase in global temperature because of human activity
- A large-scale, long-term shift in the Earth's weather patterns and average temperatures
- An increase in global temperature because of natural cycles
- A short-term change in the weather
- I don't know

Q44. Which of the following countries emits the most carbon dioxide per person from the burning of fossil fuels?

Please select one option only.

- China
- USA
- Canada
- Australia
- Saudi Arabia
- UK
- All the same
- I don't know

Q45. Which of the following are indicators of a warming climate? *

Select as many as you want:

- Rising sea level
- Ozone hole

- A change to the seasons
- Animal and plant species moving to different locations
- Melting glaciers
- Melting sea ice
- More frequent hurricanes
- Ocean acidification
- Poor air quality
- None of these
- I don't know

Q46. Which of the following sources of electricity does the UK currently use?

Please select one option for each statement.

	A lot	A little	None	I don't know the answer	I don't know what this is
Off shore wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On shore wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear fission (conventional nuclear power)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear fusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geothermal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tidal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydroelectric	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biomass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Set 8

Q47. Which of these countries has seen the fastest climate change? *

Please select one option only.

- Greenland
- USA
- China
- India
- Ethiopia
- All of these places equally
- None of these places
- I don't know

Q48. Which of the following reduces greenhouse gas emissions more?

Please select one option only.

- a) Living without using a car
- b) Buying green (renewable) energy
- c) The reduction is the same for options a & b
- d) I don't know

Q49. What does the '2°C climate goal' mean?

Please select one option only.

- Everywhere warms by 2°C above today's temperature
- Everywhere warms by 2°C above the pre-industrial (around 1850) temperature
- Nowhere warms by more than 2°C above today's temperature
- Nowhere warms by more than 2°C above pre-industrial (around 1850) temperatures
- On average the world warms by less than 2°C above today's temperature
- On average the world warms by less than 2°C above pre-industrial (around 1850) temperatures
- None of the above
- I don't know

Q50. What is meant by adaptation to climate change? *

Please select one option only.

- Adjusting to current and future climate change
- Minimising the increase in the concentration of greenhouse gases in the atmosphere
- I don't know what 'adaptation' is
- I don't know the answer

Q51. Which of these countries is projected to be most vulnerable to climate change in the future?

Please select one option only.

- UK
- China
- Sudan
- Brazil
- I don't know

Set 9

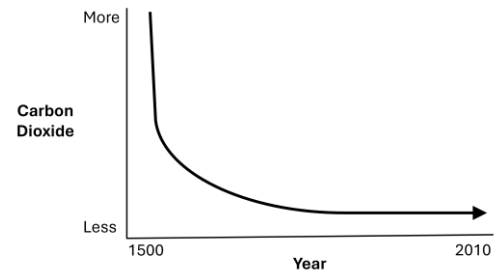
Q52. Which picture best represents your understanding of how the amount of carbon dioxide in the atmosphere has changed over the past 500 years?

Please select one option only.

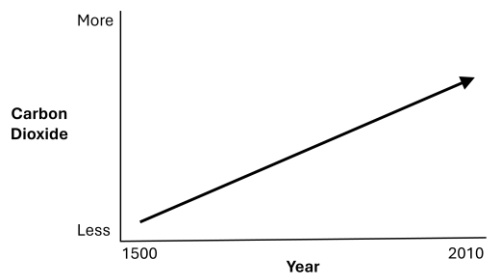
No change



Exponential decrease



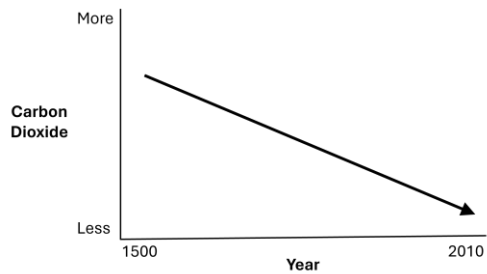
Linear increase



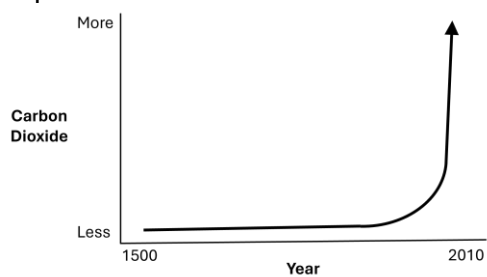
None of these

I don't know

Linear decrease



Exponential increase



Q53. How much could each of the following affect the average temperature of the Earth?

Please select an option for each statement.

	A lot	A little	Not at all	I don't know
Greenhouse gases in the atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earthquakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunspots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volcanic eruptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The phases of the moon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q54. Put the words weather and climate in the correct blanks in these sentences:

"[Blank 1] is the average [Blank 2] conditions for a particular place. [Blank 3] varies a lot from year to year."

The words weather or climate can be selected for each blank. There is no limit to how often each word is used.

Blank 1

- Weather
- Climate

Blank 2

- Weather
- Climate

Blank 3

- Weather
- Climate

Q55. In the UK, what level of risk will climate change cause to the following?

Please select one option for each statement.

	High Risk	Low Risk	No Risk	I don't know
Coastal flooding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
River flooding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme summer heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurricanes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunamis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildfires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vector-borne diseases (e.g. ticks and mosquitoes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sea level rise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q56. Which of the following are mitigation strategies?

Select as many as you want:

- Building flood barriers
- Using less plastic
- Introducing clean air zones in towns and cities
- Installing window shades
- Installing solar panels
- Installing heat pumps
- Planting trees in urban areas
- Planting trees in rural areas
- Developing salt marshes
- Restoring peatland
- Switching to electric vehicles
- None of these
- I don't know what 'mitigation' is
- I don't know the answer

Set 10

Q57. Approximately what proportion of electricity used in the UK was generated by renewable sources in the last calendar year?

Please select one option only.

- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- I don't know

Q58. Which of the following reduces greenhouse gas emissions more?

Please select one option only.

- a) Eating a vegan /plant based diet
- b) Using low energy light bulbs
- c) The reduction is the same for options a & b
- d) I don't know

Q59. Which of these areas has seen the fastest climate change?

Please select one option only.

- Antarctic (South Pole)
- Arctic (North Pole)
- The Tropics (near the Equator)
- The sub-Tropics including the Sahel region in Africa
- All of these places equally
- None of these places
- I don't know

Q60. What important role does the Intergovernmental Panel on Climate Change (IPCC) play in global climate policy?

Select as many as you want:

- Organising the annual international COP climate conferences
- Assessing the science and informing governments about climate change
- Keeping track of countries' greenhouse gas emissions
- Keeping track of how prepared countries are for the impacts of climate change
- I don't know
- None of these

Q61. Earth's climate is...

Please select one option only.

- Gradual:** Slow to change. Global warming will slowly lead to large changes in the climate
- Stable:** Very stable. Global warming won't change the climate much.
- Random:** Changes unpredictably. We don't know how the climate will change in the future.
- Fragile:** Delicately balanced. Small amounts of global warming will lead to rapid and large changes in the climate.
- Threshold:** Stable within certain limits. If global warming is small, it is easy for the climate to return to how it was before. If global warming is large, the climate changes significantly.
- I don't know the answer

Section 5 – Submission

Thank you very much for completing the survey.

Please click the Submit button to make sure we have your responses and to exit the survey.

Remember – the survey is private so please do not ask other pupils about their answers.

If you are worried about any of the questions in the survey you can speak to your teacher or to your school counsellor.

You can also contact ChildLine and speak to a counsellor in complete confidence. Calls are free and won't show on your bill.

Phone: 0800 11 11

Online chat: www.childline.org.uk