

Tackling the climate crisis

Empowering learners through climate change education

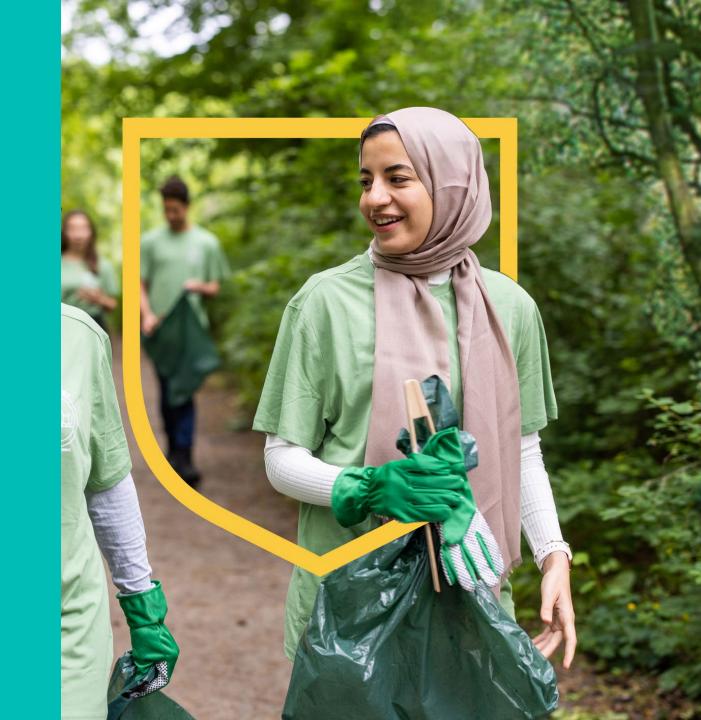
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20 March 2024



What we'll cover

- Climate change education the why; what matters
- The scope of climate change education across the Cambridge Pathway
- Key curriculum considerations
- Amplifying student voices
- What we've been hearing from schools so far
- Learning and acting together





Climate change education

....helps learners understand and address the impacts of the climate crisis, empowering them with the knowledge, skills, values and attitudes needed to act as agents of change*

https://www.unesco.org/en/climate-change/education





What matters

- Education is critical in tackling the climate crisis.
- This needs high quality education.
- · Context is key.





Climate change education in the Cambridge Pathway

Helping learners understand and address the impacts of the climate crisis, empowering them with...

Knowledge and skills

Climate Science

- Environmental Management
- Geography
- Sciences

In particular contexts

- Business Studies
- Commerce
- Economics
- Fashion & Textiles
- Marine Science
- Country studies (e.g. Bangladesh & Pakistan)

Values and attitudes

- Cambridge Learner Attributes
- Biblical Studies
- Islamic Studies
- Religious Studies
- Cambridge Global Perspectives

To act as agents of change

Skilled to engage

- Communication skills
- Critical thinking skills
- Mathematical & data skills
- Design skills
- Digital skills

Experience of collaborative change

- Cambridge Global Perspectives
- Science Competition

Empathetic and resilient

- Wellbeing
- Cambridge Learner Attributes





The Cambridge Pathway from 3 to 19





Introducing climate change concepts tailored to the age of learners





Progression in climate change science

Cambridge Early Years Age 3+ Cambridge Primary Age 5+ Cambridge Lower Secondary Age 11+

Cambridge Upper Secondary Age 14+ Cambridge Advanced Age 16+

Things I can see in the sky (e.g. clouds)

Introducing gases, chemical reactions and habitats

Carbon cycle

Sources & effects of atmospheric pollution by methane & CO₂ (Biology & Chemistry)

Climate change and biodiversity (Biology)

Humans impact their environment

Climate change and link to atmospheric change

Global warming due to carbon dioxide and methane (Chemistry)

Catalytic converters
Reactions of
atmospheric pollutants
(Chemistry)

Energy resources

Energy resources and electrical power generation (Physics)

Electromagnetic induction (Physics)



Progression in understanding plastic pollution

Cambridge Early Years Age 3+ Cambridge Primary Age 5+ Cambridge Lower Secondary Age 11+

Cambridge Upper Secondary Age 14+ Cambridge Advanced Age 16+

Objects vs materials

Objects, materials, substances, particles

Introduction to the covalent bond

Plastics as polymers (Chemistry)

Degradable polymers (Chemistry)

Looking after the outdoors environment (e.g. putting litter in a bin)

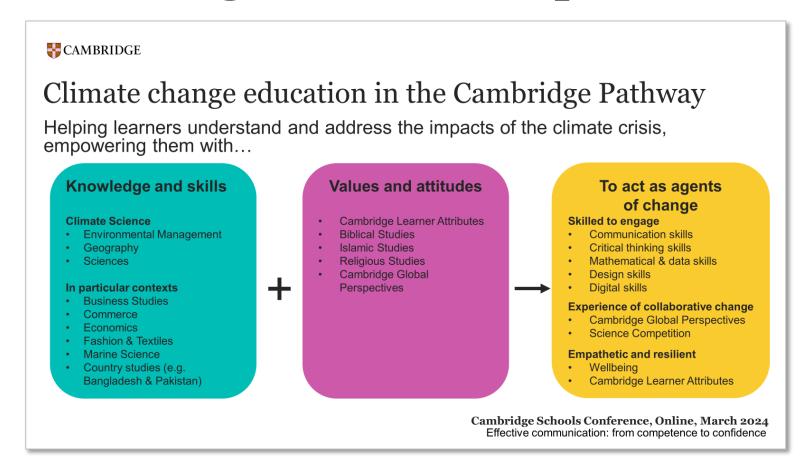
Humans can pollute the environment and toxic substances can move through a food chain or food web

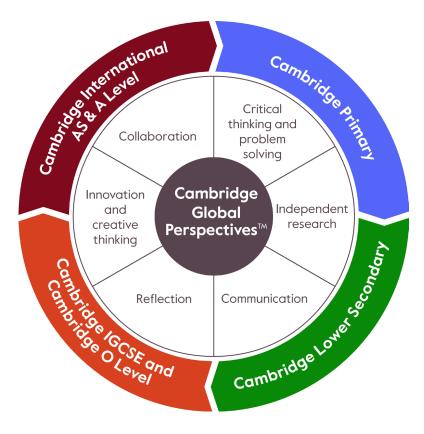
Bioaccumulation

Non-biodegradable plastics in aquatic and terrestrial ecosystems (Biology)



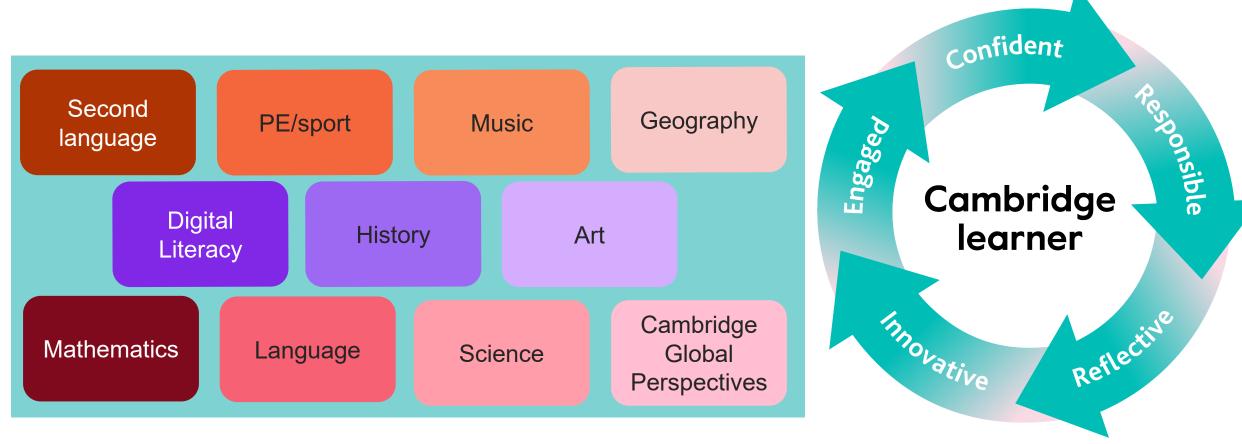
Cambridge Global Perspectives







A multi-disciplinary curriculum

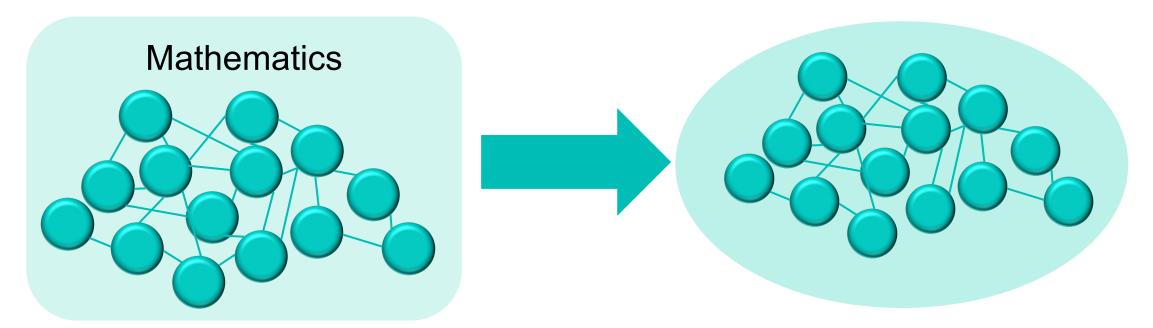




Harnessing the strengths of each discipline

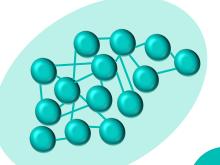
Powerful knowledge
The discipline's methodology
Thinking like a mathematician

Mathematical 'lens'

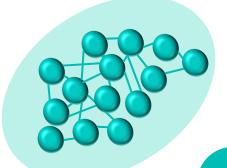




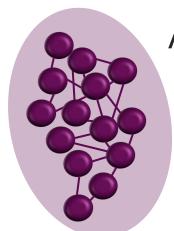
Mathematical lens



Scientific lens

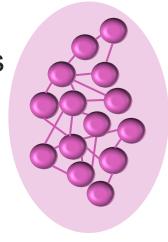


A multi-disciplinary education

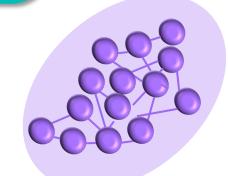


Artistic lens

Language lens

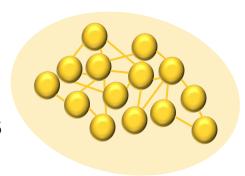


approach to climate



Context lens

Geographical lens





Young people as agents of change

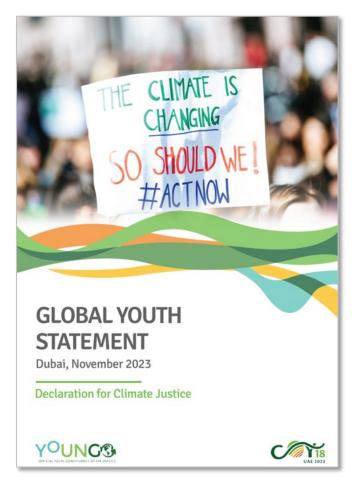






Young voices matter







Any questions or comments so far?

- Climate change education the why; what matters
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- What we've been hearing from schools so far
- Learning and acting together





What we have been hearing from schools so far...



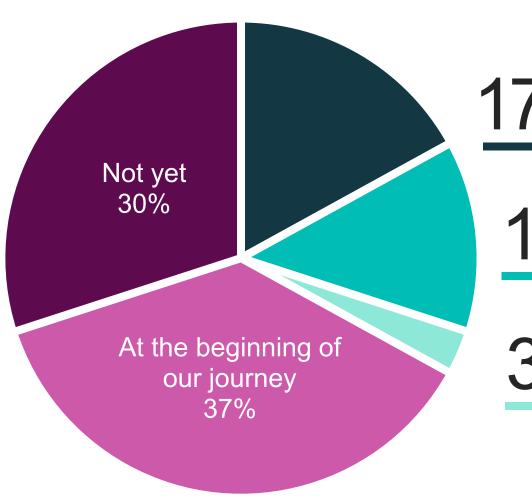




Educators so far have told us how climate change education works in their school



However, only a third have made progress in terms of having a specific focus on climate change and sustainability at their school



17 A top priority across the entire school

13 Priority in number of departments

3 We have a developing programme in place



Climate education equips learners with knowledge and skills, empowering them to take action in their own lives

It plays a crucial role in equipping learners with knowledge and skills to address climate-related challenges

It helps empower learners to take action in their own lives

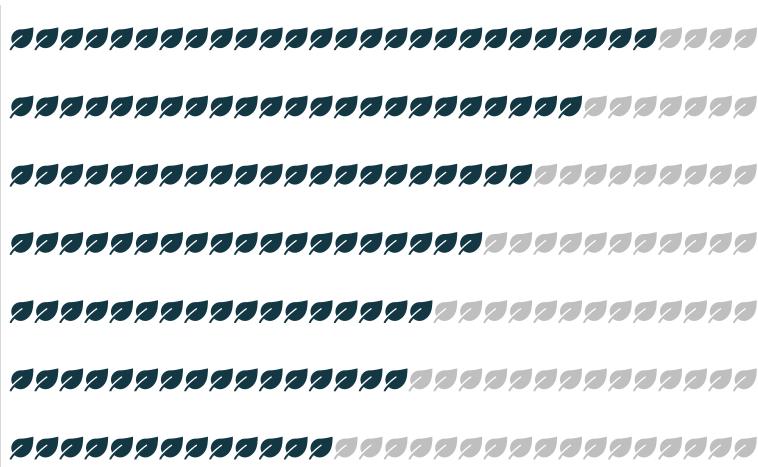
It helps to develop learners' resilence and adaptability supporting them to meet the challenges of an unknown future

It helps create a safe space for learners to express their views about climate change and learn to respect the views of others

It helps learners to indentify accurate information from greenwashing and misinformation

It is part of preparing learners for the jobs of the future

It can support learners feeling anxious about the impacts of climate change





But it is not without its challenges... such as finding appropriate content or case studies, as well as choosing a learning strategy

Selecting the right learning strategies for subject, age, and issue

Finding relevant content/case studies appropriate to local context

Integrating in into the curriculum

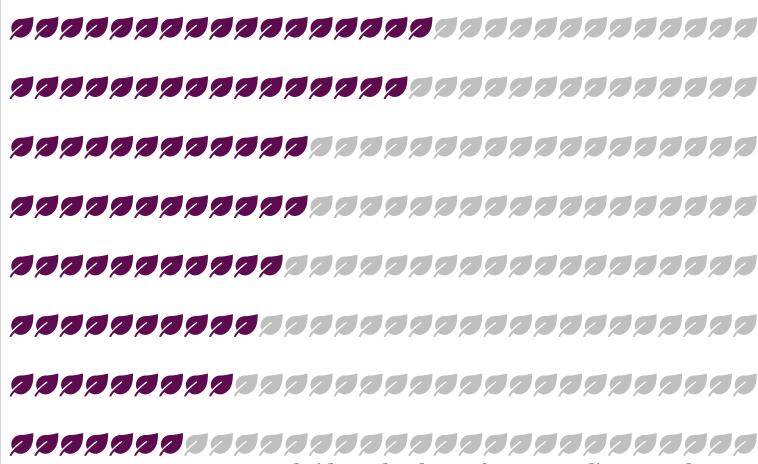
Clearly explaining complex concepts

Making space for different persepectives and responses to topics

Lack of training

Making it relevant for students

Addressing students' anxiety related to climate change





The most important part of this task for us teachers is to make students understand the urgency of change, a turning point in our daily way of life.

Each of us can and must feel an active part, making a difference by adopting more appropriate, eco-friendly lifestyles. **

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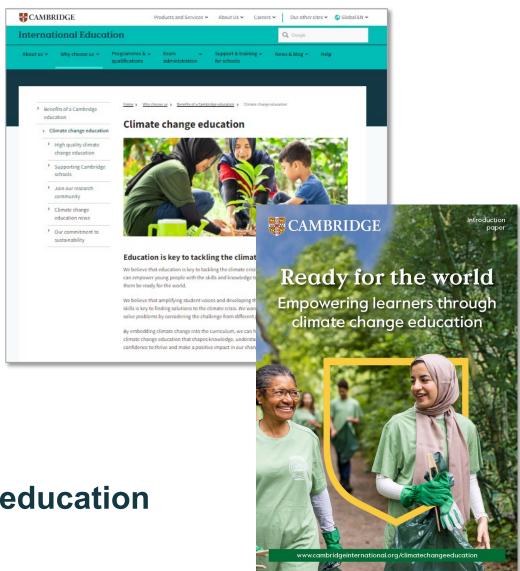
Teacher, Head of Department, Coordinator

Italy



Learning and acting together

- Read our introduction paper
- Complete our survey
- Join our research community
- Find out about the latest news



cambridgeinternational.org/climatechangeeducation



Thank you and questions

