

Lesson Plan: Climate change

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| Age Level: 12-16 | Duration: 4-8 hours of lessons |
| Topics: Climate change and social justice | Communications training: Effective writing for awareness-raising |
| Learning objectives | |
| <ul style="list-style-type: none"> • Begin learning about climate change, including the science behind it • Start identifying what constitutes a reliable source for scientific evidence • Develop research skills and critical thinking by investigating and identifying examples of climate change in the local and global context | <ul style="list-style-type: none"> • Learn key concepts related to effective writing when raising awareness about climate change. • Feel empowered to raise awareness on climate-related issues. • Select and prepare creative communication content while considering the target audiences and message. |
| Preparatory reading for teachers | |
| <p>Yconic Blogs</p> <ul style="list-style-type: none"> • Read the blog Climate change <p>Communications Training Content</p> <ul style="list-style-type: none"> • View the content Science communication • View the Yconic content 4 C's of Good Writing <p>Inspirational Videos</p> <ul style="list-style-type: none"> • View the video: What's the difference between weather and climate? • View the video: Science communication | |

| Lesson themes (1 hour each)* | |
|-------------------------------------|--|
| 1 | Introduction to weather, climate and climate change. What does scientific evidence tell us? |
| 2 | How to select appropriate sources when communicating about complex scientific issues such as climate change? |
| 3 | The role of awareness raising. How to select an appropriate communication style to raise awareness? |
| 4 | What role can youth take in climate campaigns? |
| Lesson tasks | |
| 1 | Go 'Yconic' by creating content (poem, rap song, presentation, speech, etc.) that can be put on Yconic social media channels to engage others your age. |

* If more hours are available, Lesson 3 and 4 can be extended to devote more time to developing and rolling out a more extensive awareness-raising campaign.

Key terms and concepts

- **Weather:** The day-to-day conditions of the atmosphere (e.g., sunny, rainy).
- **Climate:** The average weather conditions in a region over a long period (30+ years).
- **Climate change:** Long-term shifts in global or regional climate patterns, often caused by human activities.
- **Anthropogenic:** Human-induced, typically referring to environmental changes such as greenhouse gas emission or pollution.
- **Paleoclimatology:** The study of past climates, using evidence such as ice cores and tree rings.
- **Fossil fuels:** Energy sources such as coal, oil and natural gas, formed from ancient organic matter.
- **Greenhouse gases (GHGs):** Gases such as carbon dioxide (CO₂) and methane that trap heat in Earth's atmosphere, contributing to global warming.

Materials needed

- Laptops or tablets for research
- Access to relevant maps, data, or online tools
- Projector for initial presentations and videos
- Large paper or poster boards for brainstorming
- Markers, post-its, and other presentation materials

Note: To support Yconic objectives, as much as possible, encourage students to record the discussion by taking notes to later add to their profiles or on the [Student Area](#) on the platform or – if there is consensus among all participants – making an audio recording of class work.

Lesson Outlines

Lesson 1: Introduction to weather, climate and climate change. What does the scientific evidence tell us?

Opening Discussion

Time: 10-15 minutes

Begin with open questions:

- Ask students to describe today's weather
- How does today's weather compare with the general climate in their area?
- What do you know about climate change?
- Can you think of ways in which weather, climate and climate change are distinct?

- Are these topics, individually or together, important in your school or community?

Guided Learning

Time: 20-25 minutes

Understanding global problems and local aspects

- Project this video by BBC: [What's the difference between weather and climate?](#)
- Identify different climatic zones and discuss how they are affected by climate change.
- What is the global climate trend?
- What are some ways that climate change is having impacts on people and the Planet?
- **Towards a sustainable, fair future:** Discuss how climate change impacts many of the other 17 UN Sustainable Development Goals (SDGs). Changing climates, for example, alter weather patterns and influence what farmers can grow in certain areas. If crops fail, that region will not achieve SDG2: Zero Hunger.



Project this grid to remind the students of the various SDG objectives

Introduce the Lesson Task

Time: 5 minutes

Present the task:

Contribute to Yconic Climate Justice Campaign by creating content (poem, rap song, presentation, speech, etc.) that will engage others your age.

Explain that in the next lessons, students will:

- Learn about how youth are raising awareness about climate change and climate justice.
- Carry out research to identify reliable sources and start to understand the science behind climate change, including its local and global impacts.
- Work in groups and apply creative skills to create climate-related content (poem, rap song, presentation, speech, or other)
- Present their content to peers for feedback.
- Upload their content to the Yconic platform.

Homework (optional but may lead to better class work if students prepare at home)

- Log on to Yconic to read Blog on [climate change](#) and explore content on the [4 Cs of Good Writing](#).
- Start following some social media influencers to see what they have to say.

Lesson 2: Selecting appropriate sources and communicating about complex scientific issues such as climate change

Opening Discussion

Time: 10-15 minutes

Begin with open questions:

- What is scientific evidence? How can you determine if sources are reliable or not?
- How can good writing help draw attention to scientific evidence?
- Why is effective writing important? And for whom?
- Who can be a writer?
- Can you think of celebrities or social media influencers who write great content?

Open discussion: Reliable scientific sources - Brainstorming

Time: 20 minutes

Good Practice in Science Communication

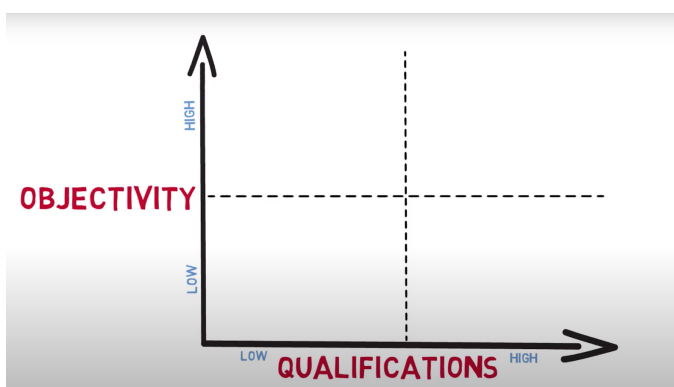
As a full class:

- Watch this video on [Science communication](#) and discuss:

Main points to convey to students based on this video:

1. **Objectivity** is the practice of observing, analysing, and interpreting information in a neutral and unbiased manner. This means avoiding being influenced by one's personal opinions, emotions or external influences.
2. Having the **right qualifications** when producing knowledge is essential to ensure **accuracy, credibility and reliability** in research and professional fields.
3. **Conclusion:** You don't need to be an expert to communicate truthfully about complex issues, you just have to choose your sources carefully, be objective and take steps to make sure you communicate clearly.

What is objectivity?



- Project the diagram from the video or draw it on the board. With the help of students, find examples of all four categories for your own country. Encourage students to research various sources including news

channels and magazines, universities and research centres, NGOs, social media influencers, etc. Help them identify which sources provide the most reliable scientific evidence.

- Explain to the students that the **Intergovernmental Panel on Climate Change (IPCC)** is often referred to in the news and articles covering climate issues. The IPCC was established to provide regular scientific assessments on climate change to policymakers and other stakeholders. Its reports are considered to be among the most robust in the field. Ask students where such reports belong in the diagram (answer: upper right-hand category). Discuss whether the students think they need to read IPCC or other academic reports to be able to communicate accurately about climate change.
- Ask students where they would place Yconic articles in the diagram (answer: upper left-hand category). Ask if they consider Yconic articles to be objective and based on reliable sources.

Group Work: Writing about complex topics

Time: 20 minutes

In groups of 3-4 students:

Note: Encourage groups to select different problems or to propose different solutions to the same problem.

- Read the Yconic Blog: [Climate Change](#)
- Start by discussing examples of climate change impacts around the World.
- Shift from global to local: how is climate change impacting your city or community?
- Brainstorm about climate change topics that your group cares about - and wants to get others to care about.
- Look for scientific evidence that: a) explains its root causes; and b) demonstrates its effects on people and the Planet.
- Now brainstorm about possible ways to eliminate the problem (known as **climate mitigation**) or, at least, reduce its impacts (**climate adaptation**).

Lesson 3: Creative writing to raise awareness

Opening Discussion

Time: 10-15 minutes

Begin with open questions:

- What is awareness raising and when is it used?
- Have students present the climate change problem they have chosen to raise awareness about and the scientific evidence to support their argument.
- Discuss whether the style (poem, rap song, presentation, speech, or other) seems appropriate and effective.

Group Work: Effective writing

Time: 45 minutes

- Present and discuss the Yconic material on [The 4 Cs of Good Writing](#)
- Discuss why communicating about scientific evidence needs effective writing
- Explore how to apply the 4C's and make a plan based on:
 - Ask the students to identify the target group(s) for their awareness-raising campaign (keeping in mind the climate issue they have chosen)
 - Ask them to decide the format through which they want to reach this target audience: through a poem, rap song, presentation, infographic, video, speech or other
 - Ask them to Get creative! Think of all the ways they can tell their story AND get others to care about it, including words, visuals (e.g. maps, pictures, diagrams)
 - Remind them to try to propose solutions. Or, if there are no obvious solutions, be honest about that, too. And to use humour – sensitively and wisely – it can be effective.

Note: Ask students to think of people or content that have inspired them in the past. If relevant, share one or more of the following videos from which they can take inspiration:

[Mary Robinson](#) delivering a speech. She was Ireland's first female president, holding office from December 1990 to September 1997, after which she served (1997-2002) as UN High Commissioner for Human Rights. In 2010, she founded *The Mary Robinson Foundation – Climate Justice*

[Barack Obama](#) delivering a speech. He was the 44th president of the United States of America, serving two consecutive terms from 2008-2016. He was the first (and only) African-American to be elected. Under his leadership, the US established its first Climate Action Plan, which proposed to reduce greenhouse gas emissions, preserve forests, encourage alternate fuels, and increase the study of climate change.

[Amanda Gorman](#) recited an original poem, *Earthrise*, during the inauguration of the 46th US President Joseph R Biden. Gorman wrote the poem for *The Climate Reality Project*, an organisation dedicated to raising awareness and encouraging action on climate change.

[Prince Ea with National Geographic](#) (rap song) Richard Williams, better known by his stage name **Prince EA**, is a spoken word artist, international keynote speaker, and rights activist from St Louis, Missouri. One of his key messages is a 'wake-up' call to everyone, that we need to do what we can – right here, right now.

Lesson 4: Feedback and reflection before posting

Opening Discussion

Time: 10-15 minutes

- Have students present their content to the rest of the class
- Let the others give feedback on what seems to be effective, what might be improved
- Explain to the students that creating a piece of awareness-raising content (like a poem or an infographic) is different from preparing a speech that presents the objective, target audience etc of the content. Now it is time to prepare a good speech to present their content

Group Work: Preparing to go public

Time: 45 minutes

- Project the Yconic video: [Speak Up: Preparing a Speech](#) (last video on the page)
- Have students prepare short presentations outlining:
 - The climate change problem they have chosen
 - Their target audience – and why they have chosen this group
 - What goals they want their content to achieve
- Have each group present their speech and linked content
- Allow for constructive feedback on the effectiveness of both the speech and the content. What worked well? What might be improved?
- Based on feedback, have groups refine their speech and content.

3. Class Vote and Sharing

- Have classmates vote on their favourite campaign, then discuss what made the ones with the most votes more successful (optional).
- [Upload all speeches and content to the Yconic platform](#) so peers from all schools can comment and provide constructive feedback.

Optional Activities and Extensions

- **Advocacy Roleplay:** Practice public speaking and advocacy skills by simulating meetings in which students have to present their campaigns to decision-makers.
- **Measuring impact:** Teach students about evaluating campaign success by using simple tools or surveys to assess how it influences knowledge, attitudes or behaviours.
- **Social Media:** Yconic is active across several social media (SoMe) accounts (see below) that students can follow to learn more and to engage with the growing network of Yconickers! They can also share what they are thinking, exploring or creating on their own accounts, tagging Yconic to draw our attention to it. Yconic also encourages sharing and engagement via school SoMe accounts.



Instagram: https://www.instagram.com/yconic_4_change
Facebook: <https://www.facebook.com/profile.php?id=61582016798449>
TikTok: <https://www.tiktok.com/@yconic4change?lang=en-GB>
Hashtags: #Yconic #Yconic4Change #Youth4Change #GoYconic #WeAreYconic
#IamYconic #YconickersUnite

Annex

Blogs/Articles

- **Yconic Blog Climate change:** https://yconic.energypedia.info/wiki/Climate_change

Communications training content and tools

- **Yconic content 4 C's of Good Writing:**
<https://yconic.energypedia.info/wiki/Communications>
- **Yconic content Speak Up: Preparing a Speech**
<https://yconic.energypedia.info/wiki/Advocacy>

Videos

- Science communication: <https://www.youtube.com/watch?v=584mrO0EVqE>
- What's the difference between weather and climate?:
https://www.youtube.com/watch?v=8J_RDfcy-00&t=14s
- Mary Robinson: https://youtu.be/7JVTirBEfho?si=1O_Fjb2nBgL2-aQN
- Barack Obama: <https://youtu.be/OFPwDe22CoY?si=iiWjmlRpf59txrTw>
- Amanda Gorman: <https://youtu.be/xwOvBv8RLmo?si=RU03PFPS5t1lcoLY>
- Prince Ea with National Geographic:
https://youtu.be/B-nEYsyRIYo?si=x_NzGRX6KqPiLyqE