
CATHOLIC RELIGIOUS EDUCATION: CLIMATE CRISIS

Grade Level / Age9-10 /15-16y



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Catholic Religious Education: Climate Crisis

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Competences/Learning Outcomes

1. To raise awareness about global climate crisis
2. To analyze the causes of climate crisis
3. To generate ideas for solving the climate crisis
4. To seek responses to global climate crisis from own worldview

Grade Level / Age

9-10 /15-16 y

Duration

90 + 90 min



Preparation

- Copy and bring definition cards, info-cards and worksheets to the classroom.
- Provide tools for online searching to the students (laptops, tablets etc).
- Provide sources for research; glossaries, books etc.
- Prepare the classroom suitable for group works.

Step-by-step description

This lesson unit consists of two separate sessions; the first session aims to enhance students' knowledge about the global climate crisis, while the second session aims to support them in finding responses to the global climate crisis based on their own worldviews.

First Session

- Divide students into 6 groups
- Ask students to watch the YouTube video about the climate change: <https://www.youtube.com/watch?v=myZAvqqp9Jc>
- Ask every group to write down 1 key point about the climate change and ask them to explain why they find this point important.
- Distribute definition cards (M1) with the definitions of key words related to climate awareness to each group:
 - 1st group: Global Warming vs. Climate Change, Weather vs. Climate
 - 2nd group: Climate Crisis, Tipping Point
 - 3rd Group: Carbon Footprint, Carbon Sink
 - 4th group: Circular Economy, Climate Justice
 - 5th group: Green Jobs, Resilience
 - 6th group: Nature Based Solutions, Indigenous Knowledge
- Ask students to prepare posters explaining the definitions of words based on the description cards given to their groups.
- Encourage students to make their presentations and ask them to hang the posters on the wall.
- Start a discussion about the climate crisis with these questions:
 - How do human activities contribute to the climate change?
 - How do you observe climate change in your own environment?
 - How does climate change affect weather, forest, wildlife etc.?
 - What should we do for climate crisis?
 - How young generations contribute climate change solutions?



Second Session

- Divide students into 4 groups.
- Distribute info-card about basic principle for relationship with nature in Islam to the groups. (M2)
- Ask students to read through the information about the principle.
- Guide students to choose one principle for their own groups to work on it.
- Give the 'Guideline' worksheet each group and ask them to fill it out in the group activity. (M3)
- Provide students a variety of sources to work on the principles; glossaries, books, online sources etc.
- Encourage students to share their guideline with the rest of the group.
- Bring together all the guidelines and hang them in the wall.

Tips for teachers

- Remind students to use all guidelines to prepare a poster/PPT for the encounter day.
- Assist students in their group works and presentations.
- Always give feedbacks after the presentations.



Materials

M1: Definition Cards (UNDP 2023)

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Global warming vs. Climate change

/ˌɡləʊbl ˈwɔːmɪŋ/ noun

1



Global warming is an increase in the Earth's average surface temperature that occurs when the concentration of greenhouse gases in the atmosphere increases. These gases absorb more solar radiation and trap more heat, thus causing the planet to get hotter. Burning fossil fuels, cutting down forests, and farming livestock are some human activities that release greenhouse gases and contribute to global warming.

Climate change refers to the long-term changes in the Earth's climate that are warming the atmosphere, ocean and land. Climate change is affecting the balance of ecosystems that support life and biodiversity, and impacting health. It also causes more extreme weather events, such as more intense and/or frequent hurricanes, floods, heat waves, and droughts, and leads to sea level rise and coastal erosion as a result of ocean warming, melting of glaciers, and loss of ice sheets.

57

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Weather vs. Climate

/'klaɪmət/ noun /'weðə(r)/ noun

2



Weather refers to atmospheric conditions at a particular time in a particular location, including temperature, humidity, precipitation, cloudiness, wind, and visibility. Weather conditions do not happen in isolation, they have a ripple effect. The weather in one region will eventually affect the weather hundreds or thousands of kilometers away.

Climate is the average of weather patterns in a specific area over a longer period of time, usually 30 or more years, that represents the overall state of the climate system.

Human activity in the industrial age, and particularly during the last century, is significantly altering our planet's climate through the release of harmful greenhouse gases.

85



“ Climate crisis

/ˈklaɪmət kraɪsɪs/ noun

3



The climate crisis refers to the serious problems that are being caused, or are likely to be caused, by changes in the planet's climate, including weather extremes and natural disasters, ocean acidification and sea-level rise, loss of biodiversity, food and water insecurity, health risks, economic disruption, displacement, and even violent conflict.

Since the 1800s, human activities have caused the Earth's average temperature to increase by about 1.2° C – with more than two-thirds of this warming occurring since 1975. This is already causing significant damage to human societies and natural ecosystems in many parts of the world. More than 3 billion people live in places that are very vulnerable to the climate crisis, with lower income countries being disproportionately affected.

Scientists expect that an increase beyond 1.5°C would begin to lead to a series of dangerous tipping points that would make many changes irreversible and pose a very serious threat to human civilization. This is why governments must act now to drastically reduce greenhouse gas emissions and chart a course for reaching net zero in the coming decades, invest in adaptation to the unavoidable impacts of climate change, and protect and restore natural ecosystems and biomes upon which the planet depends.

21

“ Tipping point

/ˈtɪpɪŋ pɔɪnt/ noun

4



A tipping point is a threshold after which certain changes caused by global warming and climate change become irreversible, even if future interventions are successful in driving down average global temperatures. These changes may lead to abrupt and dangerous impacts with very serious implications for the future of humanity and our planet.

As the world gets hotter, several tipping points are becoming very likely. One of them is the collapse of the Greenland and West Antarctic ice sheets, which would lead to significant sea level rise and threaten coastal communities and ecosystems. Another is the thawing of the permafrost in the tundra regions, which will release huge quantities of trapped greenhouse gases, further accelerating global warming and climate change. Mass coral bleaching events and the destruction of rainforests are two other major tipping points with immense implications for both biodiversity and human societies.

79



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**Carbon
footprint**

/dʒʌst træn'zɪfn/ noun

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A carbon footprint is a measure of the greenhouse gas emissions released into the atmosphere by a particular person, organization, product, or activity. A bigger carbon footprint means more emissions of carbon dioxide and methane, and therefore a bigger contribution to the climate crisis.

Measuring a person's or an organization's carbon footprint entails looking at both the direct emissions resulting from the burning of fossil fuels for energy production, heating, and land and air travel, and indirect emissions resulting from the production and disposal of all food, manufactured goods, and services they consume.

Carbon footprints can be reduced by shifting to low-carbon energy sources like wind and solar, improving energy efficiency, strengthening industry policies and regulations, changing purchasing and travel habits, and reducing meat consumption and food waste.

13

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Carbon sink

/kɑ:bən sɪŋk/ noun

6



A carbon sink is any process, activity, or mechanism that absorbs more carbon dioxide from the atmosphere than it releases. Forests, oceans, and soil are the world's largest natural carbon sinks.

Oceans absorb carbon dioxide from the atmosphere through marine ecosystems and the plant and animal life they harbor. Sequestering carbon in marine ecosystems is generally referred to as blue carbon. Forests and soil are the other main natural carbon sinks of the planet, storing carbon in trees and vegetation, wetlands and peat bogs, and plant litter.

Today, human activity, like burning fossil fuels and deforestation, causes more carbon to be released into the atmosphere than the Earth's natural carbon sinks can absorb, leading to global warming and climate change. Human activities and climate change are also causing the degradation of these natural carbon sinks, threatening the release of the carbon they store back into the atmosphere. Therefore, protecting carbon sinks and expanding their capability to absorb carbon and store it long-term is a key strategy for tackling climate change and stabilizing the climate.

17



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Circular economy

/ˈsɜːkjələ(r) ɪˈkɒnəmi/ noun

7



Circular economy refers to models of production and consumption that minimize waste and reduce pollution, promote sustainable uses of natural resources, and help regenerate nature.

Circular economy approaches are all around us. They can be employed in a number of different sectors from textiles to buildings and construction, and at various stages of a product's lifecycle, including design, manufacturing, distribution, and disposal.

Besides helping tackle the problem of pollution, circular economy approaches can play a critical role in solving other complex challenges such as climate change and biodiversity loss. They can help countries accelerate their transition to more resilient and lower-carbon economies while also creating new green jobs.

Currently, only 7.2 percent of used materials are cycled back into our economies after use. This has a significant burden on the environment and contributes to the climate, biodiversity, and pollution crises. As a result, we currently need about 1.7 Earths to deliver on all the world's resource demands.

19

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Climate justice

/ˈklaɪmət ˈdʒʌstɪs/ noun

8



Climate justice means putting equity and human rights at the core of decision-making and action on climate change.

One aspect of climate justice relates to the unequal historical responsibility that countries bear in relation to the climate crisis. The concept suggests that the countries, industries, and businesses that have become wealthy from activities that emitted the most greenhouse gas emissions have a responsibility to help mitigate the impacts of climate change on those affected, particularly the most vulnerable countries and communities, who often are the ones that have contributed the least to the crisis.

Even within the same country, because of structural inequalities based on race, ethnicity, gender, and socioeconomic status, the responsibilities in addressing climate change need to be divided fairly, with the biggest responsibility resting on those who have contributed to, and benefitted from, causing the crisis the most.

Another aspect of climate justice is the intergenerational one. Children and young people today have not contributed to the climate crisis in a significant way but will bear the full force of climate change impacts as they advance through life. Because their human rights are threatened by the decisions of previous generations, they must have a central role in all climate decision-making and action.

25



“ Green jobs

/gri:n dʒɒb/ noun

9



Green jobs are decent jobs that contribute to protecting and restoring the environment and addressing climate change. Green jobs can be found in both the production of green products and services, such as renewable energy, and in environmentally friendly processes, such as recycling. Green jobs help improve energy and raw material efficiency, limit greenhouse gas emissions, minimize waste and pollution, protect and restore ecosystems, and support adaptation to the impacts of climate change.

As the market for green jobs is expanding, countries must ensure that the workforce is equipped with the specific skills and education required to carry them out. This can be achieved by investing in training young people for future green jobs and by retraining workers from carbon-intensive industries. The latter is a key part of ensuring countries are pursuing a just transition and leave no one behind.

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“ Resilience

/riːziliəns/ noun

10



Climate resilience is the capacity of a community or environment to anticipate and manage climate impacts, minimize their damage, and recover and transform as needed after the initial shock.

To best safeguard societal wellbeing, economic activity, and the environment, people, communities, and governments need to be equipped to deal with the unavoidable impacts of climate change. This can be done by training people to obtain new skills and diversify the sources of their household income, building more robust disaster response and recovery capacities, enhancing climate information and early warning systems, and working on long-term planning, among others.

Ultimately, a truly climate-resilient society is a low-carbon one, because drastically reducing greenhouse gas emissions is the best way to limit how severe climate impacts will be in the future. It is also a society based in equity and climate justice that prioritizes support for people and communities most exposed to climate impacts or least able to cope with them.

75



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Nature-based solutions

/ˈneɪtʃə(r) beɪst səˈluːʃns/ noun

11



Nature-based solutions are actions to protect, conserve, restore, and sustainably use and manage ecosystems to support climate change adaptation and mitigation efforts, preserve biodiversity, and enable sustainable livelihoods. They are actions that prioritize the importance of ecosystems and biodiversity and are designed and implemented with the full engagement and consent of local communities and Indigenous Peoples, who hold generational knowledge on protecting nature.

Nature-based solutions are used in many ways, across terrestrial, freshwater, coastal, and marine ecosystems. Restoring wetlands protects communities from floods, while conserving mangrove forests supports food sources and minimizes the impact of storms. Forests absorb carbon dioxide, allow biodiversity to thrive, increase water security, and combat landslides, while urban parks and gardens help cool down cities and limit the impact of heatwaves. Regenerative agriculture practices increase the amount of carbon captured by the soil and restore its health and productivity.

Nature-based solutions are seen as a win-win for people and nature, addressing multiple problems at once. They can create jobs, provide new and more resilient livelihood opportunities, and increase income while also protecting the planet and addressing climate change.

61

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Indigenous knowledge

/ɪnˈdɪʒənəs ˈnɒlɪdʒ/ noun

12



Indigenous Peoples' ways of life are inherently low-carbon and emphasize balance between humans and the natural world. Their traditional practices have low impact on the environment and are responsive to it, fostering self-sustaining ecosystems.

Indigenous Peoples were among the first to notice climate change and their knowledge and practices help navigate and adapt to its impacts. Indigenous knowledge, which is intergenerational and community-based, is a great source of meaningful climate solutions that can advance mitigation, enhance adaptation, and build resilience. It can also complement scientific data with precise landscape information that is critical to evaluating climate change scenarios.

Indigenous Peoples protect an estimated 80 percent of the world's remaining biodiversity yet continue to be largely excluded from almost all global decision-making processes on climate change. Their collective knowledge, valuable insights, and rights to their ancestral lands, territories and resources, and their way of life must be recognized and included across climate policies and actions.

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M2. Basic Principles Card:

Creation is designed for relationship. Humans are created as relational beings. In the biblical creation narratives, it becomes clear that these relationships extend to three different dimensions (man-God, man-man, man-nature). If these relationships are disturbed by alienation, the relationship with creation becomes unbalanced. A good relationship with creation is therefore dependent on the balance of the three levels of relationship in which man lives.

1. Man – God: Gratitude

In the Bible, man is described as the image of God. In the so-called dominion mandate (Genesis 1:29), God entrusts him with the task of ruling over creation as a representative and deputy. This implies a responsible treatment of creation in the spirit of God. In addition, man recognizes his existence as a creature and thus his dependence on the given conditions of his life. He finds everything he really needs to live and is not subject to his sphere of influence. The harmony between Creator and creature is expressed in a respectful, responsible approach to the gifts given.

2. Man – Man: Social Justice

Human beings are also designed for a relationship with their fellow human beings. We are on the same level as them, because the dignity granted by God applies to all people. It cannot be taken away from anyone by other people. Equality and respectful treatment of one another, social justice, peace and balance result from this. When people live at the expense of others and destroy their livelihoods, this often has a concrete negative impact on the environment.

3. Man – Nature: Sustainability

The Hebrew terms for man ('adam') and for the earth ('adama') vividly express man's enduring connection to nature. The clay from which man is taken (Genesis 2) is the soil from which he feeds and to which he will return after his death (Genesis 3). This connection means that man can only be well if the earth is also well, which in turn should determine his dealings with it in the long term.



M3. Guideline



Names of the Group Members:

Principle

How we can adjust this principle to daily life?

What would be the first step?

How this principle can be a response to global climate crisis?



References

United Nations Development Programme (UNDP) (2023). *The Climate Dictionary: Speak Climate Fluently*

https://climatepromise.undp.org/sites/default/files/research_report_document/the_climate_dictionary_0.pdf

