

Theme 1: Introduction to Climate Change – Fossil Fuels and Greenhouse Gases

(September to October), Objective: Climate change is the long-term changes in our world's climate, weather, and temperature caused by greenhouse gas emissions radiating in our atmosphere, which are usually emitted through the burning of fossil fuels.

Additional Resources:

- a) Introduction to climate change: what is it, what is it caused by?
 - i) Intro to climate change article:
<https://reefresilience.org/management-strategies/community-based-climate-adaptation/climate-change-introduction/#:~:text=Climate%20change%20refers%20to%20the,oil%2C%20and%20natural%20gas>
 - ii) Understanding climate change article:
<https://www.climate.gov/news-features/department/understanding-climate>
 - iii) Basic climate change overview graphic:
<https://kingcounty.gov/~media/services/environment/climate/introduction/sun-infographic.ashx?la=en>
 - iv) Helpful site with climate change info and other resources:
<https://climate.nasa.gov/causes/>
 - v) Climate 101 article: <https://climateresearchproject.org/climate-101>
 - vi) Facts about climate emergency article:
<https://www.unenvironment.org/explore-topics/climate-change/facts-about-climate-emergency>
 - vii) Climate videos at bottom of page:
https://ourclimateourfuture.org/?_ga=2.59107310.218086855.1599235733-1470380836.1599235733
 - viii) National Geographic resources site:
<http://www.nationalgeographic.org/topics/resource-library-climate-change>
 - ix) Basics of climate change and greenhouse gasses article:
<https://www.epa.gov/climatechange-science/basics-climate-change#:~:text=Certain%20gases%20in%20the%20atmosphere,and%20necessary%20to%20support%20life>
- b) Introduction to fossil fuels: what are these, why are they harmful?
 - i) Intro to fossil fuels article:
<https://education.nationalgeographic.org/resource/fossil-fuels>
 - ii) Intro to fossil fuels in climate change article:
<https://www.eesi.org/topics/fossil-fuels/description#:~:text=When%20fossil%20fuels%20are%20burned,more%20fossil%20fuels%20are%20burned>

- iii) Sources and solutions of fossil fuel emission article:
<https://www.epa.gov/nutrientpollution/sources-and-solutions-fossil-fuels#:~:text=oxide%20emissions%20include%3A-,Cars%20and%20trucks,Ships%20and%20airplanes>
- c) Introduction to greenhouse gases: what are these, what emits them?
 - i) Intro to greenhouse gasses article:
<https://www.futurelearn.com/info/courses/sustainable-futures/0/steps/121577#:~:text=A%20'greenhouse%20gas'%20is%20a,the%20planet%20as%20a%20whole.>
 - ii) Basic greenhouse gasses and greenhouse effect graphic:
https://assets.nrdc.org/sites/default/files/styles/ec_home_alert_large/public/greenhouseeffect_graphic1_2400x1742.png?itok=rNkTHqeP
 - iii) Top 5 greenhouse gasses (carbon dioxide, methane, nitrous oxide, fluorinated gasses, water vapor) and description article:
<https://www.neefusa.org/weather-and-climate/climate-change/principal-greenhouse-gases-and-their-sources>
 - iv) Sources of greenhouse gas emissions article:
<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#:~:text=Human%20activities%20are%20responsible%20for,over%20the%20last%20150%20years.&text=The%20largest%20source%20of%20greenhouse,electricity%2C%20heat%2C%20and%20transportation.>
 - v) Greenhouse gas emissions based on economic sector graph:
<https://www.epa.gov/system/files/images/2022-04/industry-ghg-2022-caption.png>