

Climate change

Current as of: October 11, 2022

General data and facts

- Video with subtitles on melting ice in Greenland from the University of Vermont:
<https://www.youtube.com/watch?v=TEndZ368lt8>
- “The Hidden Meltdown of Greenland” from Science@NASA impressively shows that the Greenland ice sheet is melting faster than scientists thought:
<https://www.youtube.com/watch?v=xkxjyZmdJgg>
- Video on melting ice in the Antarctic from Climate Ad Project:
<https://www.youtube.com/watch?v=GVpNjG6G7fw>
- Video from the World Meteorological Organization on connections between air quality and climate with a focus on air pollution:
<https://www.youtube.com/watch?v=s4ly6o-VT90>
- Information page from National Geographic with data and facts on global warming, the greenhouse effect, and the consequences of climate change:
<https://education.nationalgeographic.org/resource/greenhouse-effect>
- Page from Skeptical Science that includes articles about climate change and that takes a critical look at the topic:
<https://skepticalscience.com/graphics.php?q=12>
- Article from the European Environment Agency on climate change impacts and adaptation:
<https://www.eea.europa.eu/soer/2015/europe/climate-change-impacts-and-adaptation>

The greenhouse effect

- PhET at the University of Colorado Boulder offers an interactive simulation on the greenhouse effect in which various parameters can be changed (beta version at this time):
https://phet.colorado.edu/sims/html/greenhouse-effect/latest/greenhouse-effect_en.html
- Information from the German Environment Agency on the greenhouse effect and greenhouse gases:
<https://www.youtube.com/watch?v=XFCdxppTsu0>
- Short, current video (2022) from CBS News on greenhouse gases, the climate agreement, and the consequences of climate change:
<https://www.youtube.com/watch?v=d4BFgtU0hJU>
- NASA Climate Kids offers information on the greenhouse effect, suitably prepared for children:
<https://climatekids.nasa.gov/greenhouse-effect/>
- Article with graphics on carbon dioxide, methane, nitrous oxide, and the greenhouse effect:
<https://climatechange.lta.org/get-started/learn/co2-methane-greenhouse-effect/>

Impacts of climate change

Note:

A separate “Storms and wind power (link list)” medium for the “Storms and wind power” worksheet is available on the Siemens Stiftung Media Portal.

There is also a separate “Heavy rainfall events and floods (link list)” medium for the “Heavy rainfall events and floods” worksheet on the Media Portal. Since this link list contains only links related to events from Africa, links that address floods around the world are also included below.

Adaptation to climate change

- An article from UNFCCC explains the terms “adaptation to climate change” and “climate resilience”:
<https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean>
- Explanatory video from Harvard University on adaptation to climate change: Designing for Change:
<https://www.youtube.com/watch?v=VX5ku0LbMMk>
- Article from NASA on mitigation and adaptation:
<https://climate.nasa.gov/solutions/adaptation-mitigation/>

Floods

- Report from the BBC about devastating floods on the Australian east coast:
<https://www.bbc.com/news/av/world-australia-60928153>
- Information on floods in Paraguay:
<https://climateknowledgeportal.worldbank.org/country/paraguay/vulnerability>
- CNN article about heavy rainfall events and floods in southern Brazil:
<https://edition.cnn.com/2022/01/31/americas/brazil-floods-landslides-climate-intl/index.html>
- Article with video about floods and the aftermath in northeastern Brazil in 2021:
<https://edition.cnn.com/2021/12/26/americas/brazil-bahia-flooding-w/index.html>
- Report about the magnitude of floods in China:
<https://www.theguardian.com/world/2022/jul/18/china-floods-sichuan-gansu-province-dead-thousands-evacuated>
- Article about the magnitude of floods after heavy rains in Turkey in June 2022:
<https://floodlist.com/asia/turkey-floods-burdur-ankara-june-2022>
- Report about lives lost after floods in India and Nepal in 2017:
<https://www.unicef.org/stories/flooding-affects-millions-bangladesh-india-and-nepal>
- Article about evacuation operations due to floods in Malaysia in January 2022:
<https://edition.cnn.com/2022/01/02/asia/malaysia-floods-evacuation-intl-hnk/index.html>

Ocean acidification

- NOAA article about the causes and impacts of ocean acidification:
<https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-acidification>
- Information on ocean acidification:
<https://www.whoi.edu/know-your-ocean/ocean-topics/how-the-ocean-works/ocean-chemistry/ocean-acidification/>

Tipping elements

- Article in the journal *Science* about climate tipping elements and global warming:
<https://www.science.org/doi/10.1126/science.abn7950>
- The BBC Earth video describes the impacts of global warming on the world population and closes by addressing the tipping points:
<https://www.youtube.com/watch?v=febBRv2Vftk>
- BBC article on six tipping points that will likely be crossed:
<https://www.bbc.com/news/science-environment-62838627>