National Geographic Lessons & Activities on Climate Change

Climate Change 101: The Causes and Effect of Global Warming
https://www.nationalgeographic.org/video/climate-101-cause-and-effect/
What causes climate change? And what are the effects of climate change? Learn the human impact and consequences of climate change for the environment, and our lives. Grades 5-12

Our Change to Make! – 4 Activities
https://www.nationalgeographic.org/lesson/our-change-make/
Students explore the human effects of climate change and global strategies for mitigation and adaptation. Next, they track their own carbon footprint and interview school community members to identify key carbon-emitting behaviors. Finally, students design and present a Climate Change Challenge Pledge to help others in the school community commit to reducing their climate impact. Grades 6-8

Sea Temperature: The Evidence
https://www.nationalgeographic.org/activity/sea-temperature-evidence/
Students watch a video to identify and describe the effects of sea temperature rise in detail. Next, they examine a graph of sea surface temperature data, verbally summarizing the linear trends they see. Finally, students use the slopes of these trends to predict future sea surface temperature changes from the digital dataset associated with this graph. Grades 6-8

MapMaker: Sea Surface Temperature
https://www.nationalgeographic.org/maps/mapmaker-sea-surface-temperature/?utm_source=BibblioRCM_Row
The temperature of the ocean impacts climate globally and regionally and contributes to storm intensity. Explore sea surface temperature with this interactive map layer. Grades 5 -10

Shifting Seas
https://www.nationalgeographic.org/lesson/shifting-seas/?utm_source=BibblioRCM_Row
Students make and evaluate predictions related to climate change's effects on the oceans, using evidence from videos, articles, and demonstrations and 5 activities. Grades 6-8

Ocean Acidification: The Evidence
https://www.nationalgeographic.org/activity/ocean-acidification-evidence/?utm_source=BibblioRCM_Row
Students watch a video to identify and describe the effects of ocean acidification in detail. Next, they examine a graphical representation of ocean acidification data, summarizing the linear trends they see. Finally, students calculate the slope of these lines to quantitatively compare and contrast the strength and direction of these trends. Grades 6-8

The King Tides Project
https://www.nationalgeographic.org/interactive/king-tides-project/
Learn more about sea-level rise and its effects on coastal communities with this Esri Story Map.
Grades 5-12

Hydroelectric and Geothermal: Benefits and Drawbacks
https://www.nationalgeographic.org/activity/hydroelectric-and-geothermal-benefits-and-drawbacks/
Students analyze the benefits and drawbacks of hydroelectric and geothermal energy and the environmental impacts on a specific geographic location. They create a multimedia presentation to share what they have learned.
Grades 6-8

An Imbalance in our Ocean

https://www.nationalgeographic.org/activity/an-imbalance-in-our-ocean/
Students watch videos to examine ways that human actions can throw a marine ecosystem out of balance and lead to species decline. Then they brainstorm a list of stakeholders and generate questions about them.
Grades 9-12

Ecosystem Imbalance in the World
https://www.nationalgeographic.org/lesson/ecosystem-imbalance-world/?utm_source=BibblioRCM_Row
Students build on their knowledge of individual impacts on the ocean to see how the whole system can react to threats and changes. They examine ways in which human actions throw marine ecosystems out of balance, explore the concept of how impacts can build, and review their understandings of ecosystem dynamics.
Grades 9-12

Energy Use in the Americas
https://www.nationalgeographic.org/activity/energy-use-in-the-americas/
Students investigate issues of energy use in the Americas that are related to energy consumption, carbon emissions, and population size. They map and graph the information and then analyze it.
Grades 9-12

Earth's Changing Climates
https://www.nationalgeographic.org/activity/earths-changing-climates/
Students are introduced to the unanswered question about the future of Earth's climate. They explore data showing temperature changes over the past 120 years and data illustrating climate trends over different time scales. Students evaluate the information the data provide and consider the limitations of conclusions based on the data.

Location, Location: Coastal Living
https://www.nationalgeographic.org/activity/location-location-coastal-living/
Students prepare a news report that highlights problems facing coastal communities and how climate change might affect coastal populations.
Grades 3-5

Working with Nature to Slow Global Warming
https://www.nationalgeographic.org/article/working-with-nature-to-slow-global-warming/
What do coral reefs and cement have in common? How can they slow global warming? Find out!
Grades 9-12