

## Some Climate Change Classroom Applications

NOAA Climate.Gov - <https://www.climate.gov/teaching/demos-experiments?page=0>

72 Demonstrations and Experiments

Examples:

- Thermal expansion of water
- Earth's albedo and global warming

The Royal Society Open Science - <https://royalsocietypublishing.org/doi/10.1098/rsos.192075>

From "A simple experiment on global warming" by Y.A. Levendis, G. Kowalski, Y. Liu, & G. Baldassare

- Experiment to demonstrate the global warming potential of carbon dioxide (CO<sub>2</sub>) gas in the Earth's atmosphere

We Are Teachers – An online site for teachers that shares classroom ideas from other sources. -

<https://www.wareteachers.com/climate-change-activities/>

15 Climate Change Activities

Examples:

- Measure temperatures to learn about the greenhouse effect
- Understand the difference between climate and weather

Advancement Courses – An online provider of professional development and teacher resources -

<https://blog.advancementcourses.com/classroom-activities/climate-change/>

Examples:

- Greenhouse effect experiment
- Electrical consumption and CO<sub>2</sub> activity.

NASA – Climate Change Inquiry Labs Teacher Guide developed by the Global Precipitation Measurement Mission

[https://gpm.nasa.gov/education/sites/default/files/lesson\\_plan\\_files/climate%20change%20inquiry/Climate%20Change%20Inquiry%20TG.pdf](https://gpm.nasa.gov/education/sites/default/files/lesson_plan_files/climate%20change%20inquiry/Climate%20Change%20Inquiry%20TG.pdf)

Examples:

- Melting ice and sea level rise
- Carbon dioxide and air temperature
- Sea ice and ocean temperature.

### Some Overviews of Climate Change

NASA Global Climate Change - <https://climate.nasa.gov>

NASA Climate Kids - <https://climatekids.nasa.gov/>

NOAA Climate.Gov - <https://www.noaa.gov/climate>

Energy.Gov / Climate Change - <https://www.energy.gov/science-innovation/climate-change>

EPA Climate Change Science - <https://19january2017snapshot.epa.gov/climate-change-science/overview-climate-change-science.html>

National Climate Assessment - <https://nca2014.globalchange.gov/highlights/overview/overview>

Stanford EARTH – Stanford Department of Earth, Energy & Environmental Sciences -

<https://earth.stanford.edu/climate-change-ed/curriculum#gs.eulkkd>