Climate Change Classroom Applications

NOAA Climate.Gov - https://www.climate.gov/teaching/demos-experiments?page=0
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. Liiu, & G. Baldassare
Example:
- Experiment to demonstrate the global warming potential of carbon dioxide (CO_2) gas in the Earth's atmosphere

We Are Teachers – https://www.weareteachers.com/climate-change-activities/
An online site for teachers that shares classroom ideas from other sources
Examples:
- Measure temperatures to learn about the greenhouse effect
- Understand the difference between climate and weather

Advancement Courses –https://blog.advancementcourses.com/classroom-activities/climate-change/
An online provider of professional development and teacher resources –
Examples:
- Greenhouse effect experiment
- Electrical consumption and CO_2 activity

NASA –
https://gpm.nasa.gov/education/sites/default/files/lesson_plan_files/climate%20change%20inquiry/Climate%20Change%20Inquiry%20TG.pdf
Climate Change Inquiry Labs Teacher Guide developed by the Global Precipitation Measurement Mission
Examples:
- Melting ice and sea level rise
- Carbon dioxide and air temperature
- Sea ice and ocean temperature

CLEAN – https://cleanet.org/index.html
Teaching resources for K-12 through college
Examples:
- Summary of the climate and energy literacy principles
- Teaching approaches for various grade levels – includes NGSS references
- Relevant resources

Stanford EARTH – Stanford Department of Earth, Energy & Environmental Sciences -
https://earth.stanford.edu/climate-change-ed/curriculum#gs.eulkkd
Lesson plans for middle school and high school

PBLWorks - https://www.pblworks.org/teaching-about-climate-change-project-based-learning
Teaching about Climate Change with Project Based Learning
- Some project ideas
- Help for teachers to do projects