

STEM@CGI AT HOME

STEM-based activities for kids that can be done at home

Staying active. Learning together. #STEMatHome

“STEM@CGI at Home” offers weekly STEM-based activity packets for children, including practical STEM activities and competitions. Get your family involved, share pictures, learn and have fun!

This week, we are learning about Climate Change. What would you like the world to look like when you grow up? How can you help shape our climate and care for the planet? This week’s activities will give you direction and inspiration.

Activity 1 – Climate vs. Weather

Climate and weather are not the same. Weather changes daily, but climate is a measure of the average pattern of weather over long periods.

- Did you know that the world’s climate is changing? The world’s climate naturally changes over time due to things like volcanic activity or changes in the sun.
- Did you know that people also contribute to climate change? Many human activities like driving cars, generating electricity and running factories release gases into our atmosphere. These gases trap heat from the sun close to the earth and cause the earth to warm up. Over time, since the 1700s, the earth has been slowly heating up. This is causing changes in weather patterns and polar ice is melting, threatening coastal cities.



Watch this video to find out more: [Climate change \(according to a kid\)](#)

Check out more lesson plans and templates in these [supplemental materials](#) for more information on Climate Change as well as this [NASA website](#).

Climate change can also cause more intense weather. That could mean more intense heat and cold spells, hurricanes, flooding and drought. Sometimes these weather changes can be a concern for birds. In recent years, scientists are noticing that intense weather can cause fewer birds to show up in areas they would normally inhabit and also affect the availability of their food sources.

Check out the activity below for a helpful and creative way you can help birds!

Activity 2 – Make a Bird Feeder

Watch [this video](#) as CGI member, Beth Bujak, walks us through how to make some upcycled bird feeders!



Activity 3 – Reduce Energy

What can you do to help?

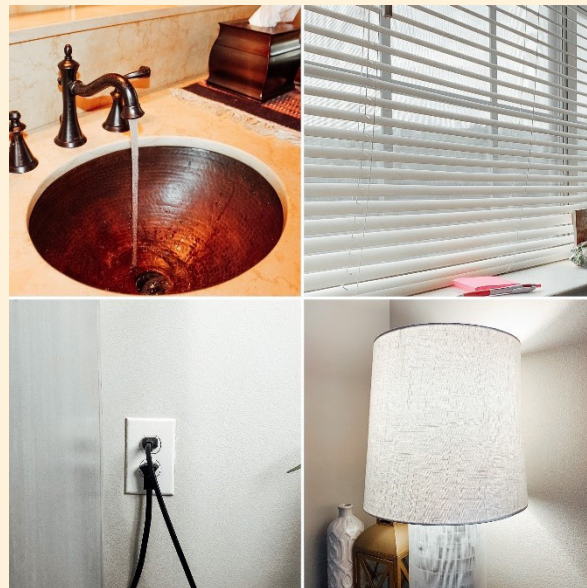
Step 1 - Think of at least 3 things you and your family do weekly that uses energy.

Step 2 - Can you think of a way to reduce that usage? Talk with your family about your ideas. For example, instead of going somewhere in a car, can you take a bus or ride your bike there?

Step 3 - When you and your family have agreed on at least 3 things that you can do to reduce your family's carbon footprint, make a poster showing your ideas. Take some pictures, make drawings, or cut pictures from magazines to help you illustrate your ideas.

Here are a few more examples:

- Turn off lights and use natural light instead.
- Turn off running faucets.
- Unplug televisions, computers, and other electronics when they are not in use.



Bonus activities

These activities are aimed at students aged 8 to 14 but everyone can get involved!

[Weather & Climate](#)

NASA has some great information about the difference between weather and climate.

[Scratch – Weather Projects](#)

Take a look at some of the Scratch projects other kids have made. Try remixing one to show the weather in your city.

[Planet Arcade](#)

Try your hand at some weather related games from the NOAA – The National Oceanic and Atmospheric Administration

**Watch for more STEM@CGI at Home ideas this Fall.
Stay healthy and safe!**