

Architects in Schools
Spring Break Camp

DAY 2

All About Climate Change

*Please complete Day 1 activities
before moving ahead*

afo

architecture foundation of oregon

Hey There Architects! We hope you had fun learning about architecture and sustainability yesterday. Do you understand why it is important for architects, engineers and contractors to think about sustainability when they design and build buildings? Don't worry if you don't understand quite yet. We'll continue to explore this idea for the rest of camp.

Today we are going to focus on a large topic called **climate change**. As you learned in your vocabulary words from yesterday, climate change describes a change in average conditions (such as temperature and rainfall) in a region over a long period of time. Climate change impacts you and everyone else on Earth. Maybe you have noticed a larger amount of rain and flooding than before or more heat waves during the summer. Those are signs of climate change.

Let's dive into the topic of climate change today, and how buildings can be designed to work with the natural environment and actually help create healthier communities.

Day 2 Materials List

Keep these materials nearby as you work through today's lesson

- Your Architect Journal
- Pencil and eraser
- Colored pencils, markers or crayons (something to color with)
- A flat surface to work on

Endangered Animal Puppet Materials

- More of the materials listed above
- Old sock or small paper bag
- Any other materials you'd like to use for this exercise - you'll get to be as creative as you want!

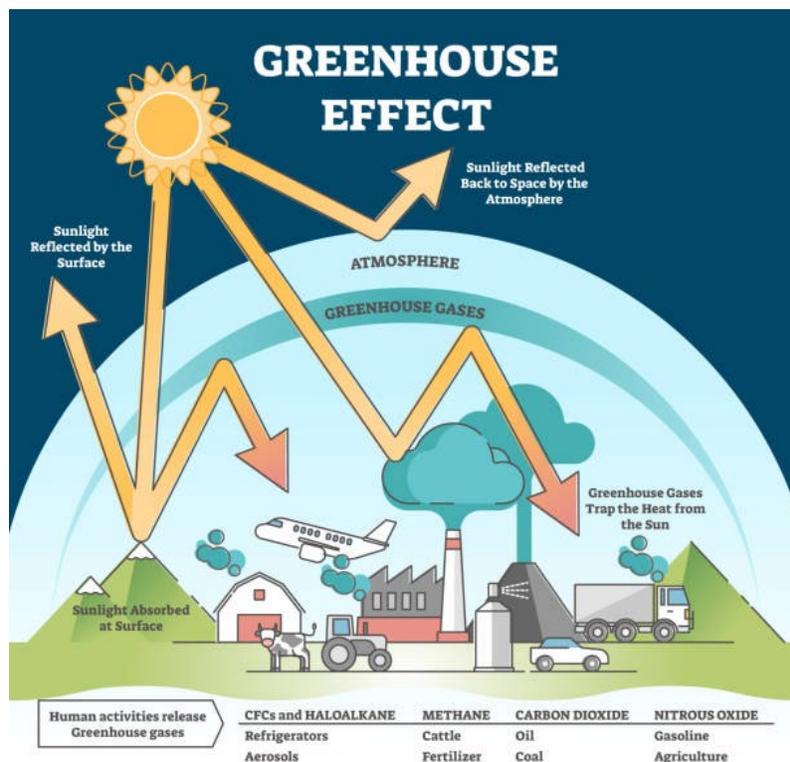
Warm Up

Want to learn more about what climate change is and why it matters? Check out this link: <https://climatekids.nasa.gov/kids-guide-to-climate-change>

The leading cause of recent climate change is the increase of greenhouse gases in the atmosphere. **Greenhouse gases** are types of gases found in the Earth's atmosphere that trap heat. Sunlight enters the Earth's atmosphere and greenhouse gases trap the heat caused by sunlight from leaving the atmosphere. We need greenhouse gases to survive on this planet, but too much of it leads to climate change, which is what we are experiencing today.

Watch this short video to better understand the greenhouse effect: <https://youtu.be/SN5-DnOHQmE>

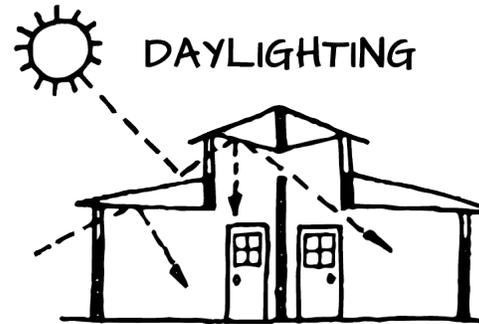
Read more about it here: <https://climatekids.nasa.gov/greenhouse-effect>



Day 2 Vocabulary

Today's words to remember are:

Daylighting is a method of lighting the inside of buildings with natural light (like sunlight through windows) so that less artificial light (like from light bulbs) is needed.



Eco Roofs or **Green Roofs** are light-weight, green, living roofs made of plants and soil that don't need a watering system, fertilizer or pesticides.

Energy Efficiency is the ability to do something without wasting energy. Examples of being energy efficient are to turn off the lights when you leave a room or to turn off the water when you brush your teeth.

Fossil Fuels are fuels, such as coal, oil and natural gas, produced by the breakdown of ancient (fossilized) plants and animals. It is a source of non-renewable energy and creates greenhouse gases when burned.



image credit: sciencenotes.org

Renewable Energy includes energy sources such as wind, solar and hydro power that can keep producing indefinitely without being used up as with fossil fuels.

Solar Power refers to the act of using heat from the sun to power and heat things in a building like a house, office or school.

Wind Power refers to power systems that convert the energy of wind into electricity.



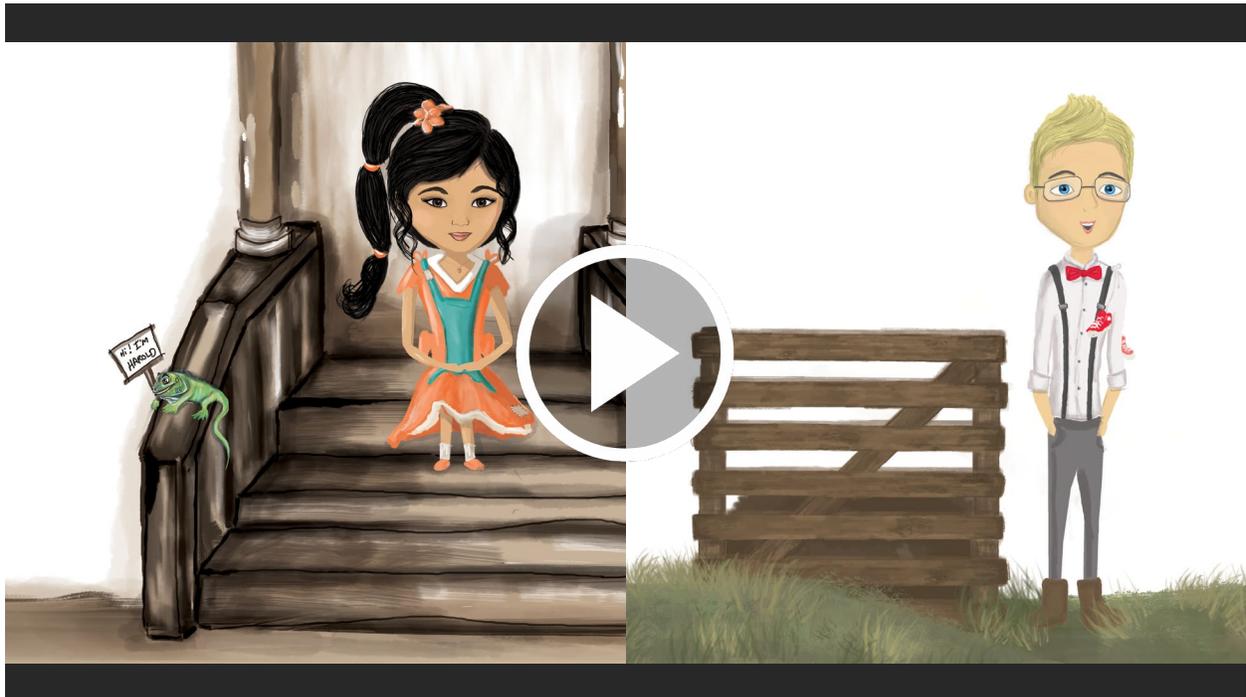
Wind turbines create power from the wind

Today's Read Aloud Video

Are you ready to see how the amazing kids of Egansville restored their town after The Great Landslide? Today with our engineer friend Jeremy, you will explore Enna and Choplin's stories and the small things they did that ended up having a huge impact on the people of Egansville.

Can't wait to read more about the other kids in Egansville? Read the eBook here! <https://bit.ly/egansville>

Don't forget to come back to this document when you are done with the read aloud video. We have another exciting video for you to watch after this one!



Day 2 Read Aloud: Enna and Choplin

Watch now:

<https://youtu.be/lcgCq19-IAU>

Continue scrolling
for another video!



Today's Camp Video

In today's video you'll get to spend some more time with our architect friend Sina. She will dive deeper into the topic of climate change and show you some really cool examples of sustainable buildings and spaces!



Day 2 Video: Sustainable Places Across the World

Watch now:

<https://youtu.be/C4KxSk2LFEg>

Game: What's the Greener Thing?

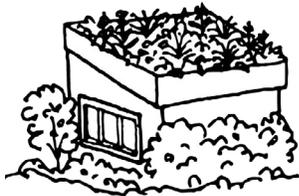
After you watch today's videos, go to page 16 of your **Architect Journal**. Here you can play a quick game to test your knowledge on sustainability! What do you think is the greener thing?

Day 2 Activity: How Green is My Home?

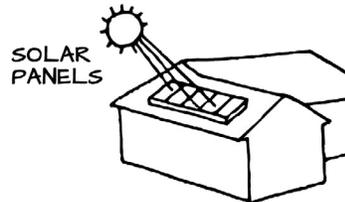
Continue onto page 18 of your **Architect Journal** to complete the activity: How Green is My Home? This activity will help you take a closer look at your own habits and how sustainable/green you live in your everyday life. Once you have completed this activity, answer the Day 2 Takeaway Questions on page 20.

If you didn't get a chance to finish your collage from Day 1, feel free to go back and continue working on it.

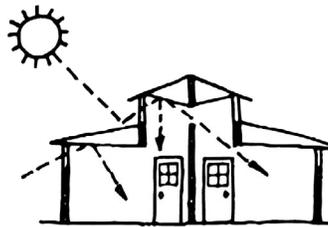
There is also another Vocabulary Mix & Match on page 21 of your **Architect Journal**. See if you can remember the definitions of some of the vocabulary words you learned today. Match the definitions to the word you think they go with!



ECO-ROOF



SOLAR POWER



DAYLIGHTING



WIND POWER

Endangered Animal Puppet

Watch a recording of our Day 2 LIVE camp activity from last summer. You will have the chance to make an endangered animal puppet!

**WATCH
NOW**

★ Bonus Challenge: Sustainability Journalist or Puppet Show Director

We have two bonus challenge options for you today! Extra bonus points if you do both! Follow the Day 2 Bonus Challenge steps on page 22 and 23 of your **Architect Journal**.

The first challenge is for you to take on the role of a Sustainability Journalist. You'll get to interview a friend, family member or neighbor on what type of sustainable feature they dream of having in their home. You'll then draw them a picture of their home with that new addition!

The second challenge is an extension of the Endangered Animal Puppet activity. Your challenge is to direct a puppet show with your animal character and perform it for friends and family. Or you can record it on video!

Share Your Work With Us!

Don't forget to take pictures and videos of the things you design, draw and build throughout this camp. We would love to see what you create! Plus, when you submit images of your work, you'll have the chance to be featured on our [shared camp board!](#)

Ask a parent or guardian to help you submit your work using this form: bit.ly/aisSB23-shareyourwork



See other
people's work
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camp board!
[TAKE ME
THERE!](#)