Architects in Schools
2022
Summer Camp

DAY 3

Wednesday, July 13

Designing for Resilience

Please complete Day 2 activities before moving ahead

afo
architecture foundation of oregon

DAY 3

AiS Summer Camp

Hi Architects! Can you believe that we are already on Day 3 of our Camp? We hope that you are having as much fun as we are!

Did you know that designers can be superheroes and that you can be one too? Today, we are going to talk about how designing spaces in a thoughtful way can help people, animals and living things around the world be safer and more cared for. A word that we use to describe this type of design is resilience. When a building is resilient, it has the ability to adapt successfully (withstand, resist and recover) many different challenges.

This is important because sometimes unexpected things happen that can impact how we live. Unexpected events like earthquakes and tsunamis are impacted by climate change. But, if we work to design our spaces to be safer and to take care of our world, then we can live knowing we are safe and have the resources we need, no matter what natural events might come!

☑ Day 3 Materials List

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

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

LIVE Activity Materials:

- More of the materials listed above!

Join us for our LIVE Activity today at 12:30pm PT!
CLICK HERE TO JOIN

DAY 3

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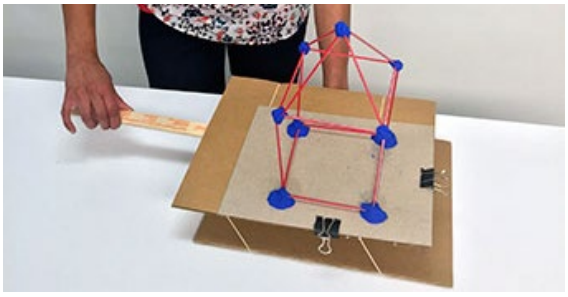
Warm Up

Remember that we talked a lot about climate change yesterday? Scientists have observed the Earth's surface warming, and many of the warmest years on record have happened in the past 20 years. This can lead to more unpredictable weather related events.

Sometimes things happen in communities like tornadoes, hurricanes, earthquakes and landslides (like what happened in Egansville). Often, when designing sustainably, we take into consideration what natural forces a building or space might be exposed to and minimize the negative impact. There will always be unexpected natural events that occur across the world, but there are also things that we can do to help make our buildings resilient and our communities safe!

Explore some ways that kids like you are preparing for disasters: https://plan-international.org/case-studies/5-ways-communities-around-the-world-prepare-for-disasters

Be a Ready Kid! Learn how to prepare an emergency kit: https://www.ready.gov/kids/be-ready-kids



Become an earthquake engineer! https://pbskids.org/designsquad/build/seismic-shake-up

Warm Up

Cool Kid Project Spotlight

Disaster Relief Shelter

Hey - look at this cool project that some 4th graders designed and made at Faubion School in Portland, Oregon!

These students designed a disaster relief shelter that would keep two people safe during an emergency. They then built the shelter and created an instruction manual so anyone could put it together. They even designed and made a handy duffel bag that held all of the lightweight building materials and the instruction manual!

Day 3 Vocabulary

Today's words to remember are:

Building Code is a set of rules on a building design, construction, testing, inspections, and maintenance to protect public health, safety and welfare.

Building Performance is how well a building's design accomplishes the intended function of that building, including safety of the people using that building.

Client is a person or organization that hires architects, engineers and contractors to design and build spaces.

Design Criteria includes the precise goals that a project must achieve in order to be successful.

Resilient (in a building system) refers to the ability to adapt successfully (withstand, resist and recover) to challenges that stress its function.

Wayfinding Systems are things like "Exit" signs that guide people through a physical environment and enhance their understanding and experience of the space (so they can find where they need to go in a building or park for instance).

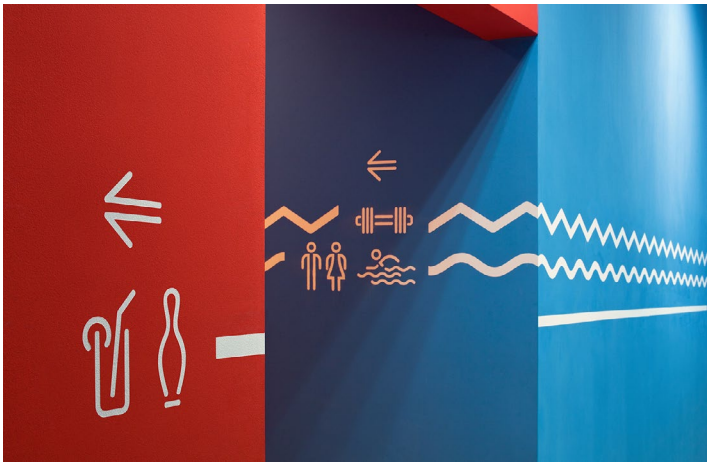


image credit: Fuze Interiors

image credit: Knot Design

DAY 3

AiS Summer Camp

Today's Read Aloud Video

Today, Jeremy will lead you through Freddy's story! You'll learn that Freddy uses his design thinking to help make sure that things work for people. One of the ways that designers today are taking care of people and addressing climate change is by thinking ahead to ensure that people will be safe, even if something unexpected happens, just like The Great Landslide in Egansville.

You can read the full 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 3 Read Aloud: Freddy

Watch now:
https://youtu.be/90Fy6A_68fk

Continue scrolling for another video!

Today's Camp Video

Today, you get to hear from our friends Crystal, Josh and Craig as they talk about some cool buildings in Oregon that they designed. These are examples of buildings that were designed and built to be sustainable and resilient and safe for the people in them – even if an unexpected event like an earthquake or tsunami happens. The buildings they will share with you are the Gladys Valley Marine Studies Building in Newport, Oregon and the Oregon Treasury Resiliency Building in Salem, Oregon.

Day 3 Video: Super Buildings Created by Superhero Designers

Watch now:
https://youtu.be/8UOPim6J6Gk

DAY 3

AiS Summer Camp

Day 3 Activity: Meet Your Special Client

Today is extra exciting because you will be starting your final project. You are to be the architect and builder of a habitat for a special bird or bug client who needs a safe space to enjoy.

It's time to become a superhero designer! Not only will you be making a ton of small design decisions that will have a big impact on your client's habitat, but the habitat itself is a small thing that will have a big impact on your community. Creating a habitat for a beneficial bug or bird helps plants and animals thrive in your community - which in turn helps humans thrive! These beneficial clients help pollinate and take care of plants which give us food to eat and oxygen to breathe. We couldn't live without bugs and birds like these!

Begin by reflecting on today's videos on page 26 of your **Architect Journal**. Next, choose a client on page 27 and draw a picture of them! Find your Day 3 Takeaway Questions on page 29 and another Vocabulary Mix & Match on page 30.

Tomorrow, we will spend some time on a Design Development Sheet that will help you plan your habitat for your client. On our final day of camp, you will get to actually build the habitat!

Check out the next page for some links to help you learn more about your bug or bird client.

Join Today's LIVE Activity!

Make sure you login to our LIVE camp activity today at 12:30pm PT. You will have a chance to talk about your final project and ask questions!

CLICK HERE TO JOIN

Get to Know Your Client

When architects accept clients that come to them, it is their job to listen to what the client needs and make sure the client gets what they are hoping for. Since you are the architect for this structure, you will need to listen to and address your client's needs as you design their habitat.

You might want to know more about your client as you start designing a space for them. Here are some links to get you started. With your parent or guardian's permission, you might want to do even more research!

Learn about Mason Bees:
bit.ly/masonbees-audubonpdx

Learn about Hummingbirds:
myodfw.com/wildlife-viewing/species/hummingbirds

Learn about Western Tiger Swallowtail Butterflies:
www.butterfliesathome.com/western-tiger-swallowtail-butterfly.htm

Learn about Convergent Lady Beetles:
catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1604.pdf

★ Bonus Challenge: Stable Skyscraper

Design and make a stable skyscraper model using simple materials. Think about how a tall building must withstand wind and other forces to be safe. These are things that designers have to think about when they design buildings!

Follow the Day 3 Bonus Challenge steps on page 31 and 32 in your **Architect Journal** to complete this challenge.

Materials needed:
- Paper towel tubes
- Paper
- Straws (optional)
- Tape
- A fan or something to create “wind”

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!

See other people’s work on our shared camp board! TAKE ME THERE!

Ask a parent or guardian to help you submit your work using this form: bit.ly/SummerCamp2022Shareyourwork