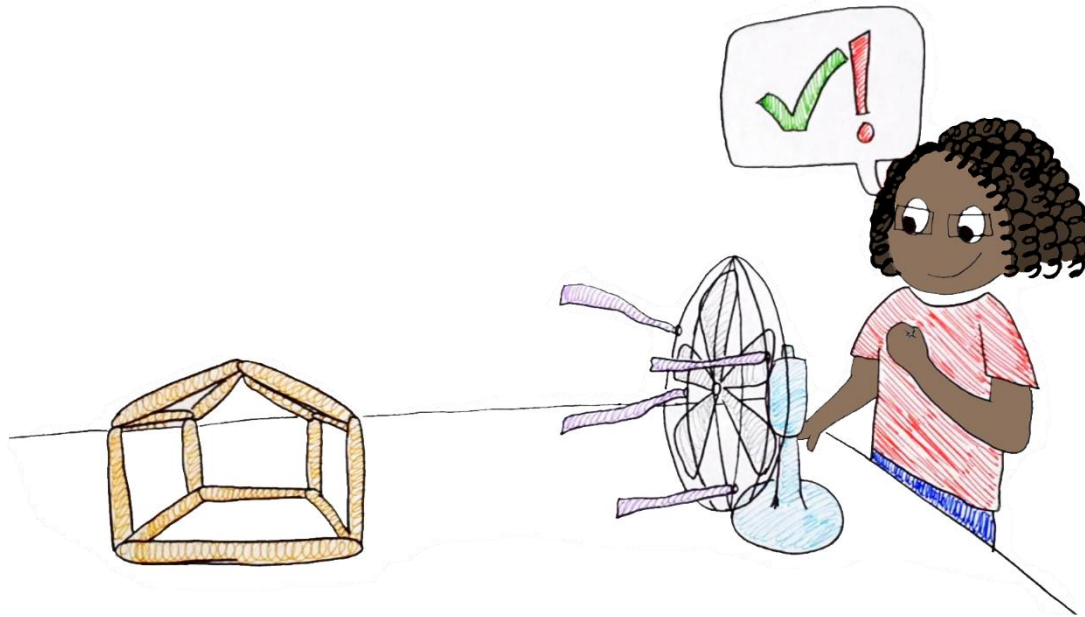




Building Lesson Plan (ages 11 – 18 years old)



High Level Overview – Part 1

Student preparation in advance of lesson:

- Have computer capable of running the video conferencing platform you'll be using
- Gather supplies including – 14 straws or 14 popsicle sticks, tape, scissors

Student learning objectives:

- Learn about different types of buildings
- Design a simple building model with limited supplies
- Build a simple building model with limited supplies

More Info

Ages 11 - 18 years old – this overview will require adjusting to the unique needs of your students. You will use the building structures lesson plan.

Building Structures – Part 1

45 minutes

Welcome and introduction

5 min

Let's consider buildings

10 min

Learn about different buildings and types of buildings

Design a building

20 min

Students will be limited to 14 straws or popsicle sticks for their design

Build a building

20 min

Students will build the structure they designed

Q & A

10 min

High Level Overview – Part 2

Student preparation in advance of lesson:

- Have completed building their model
- Have a fan to test their structure
- Have something to put their structure on that is unstable or wobbles – like a stack of thin books, a box, or wobbly table
- Optional: ahead of this assignment – have the students watch this [video](#) on building structures

Student learning objectives:

- Test their structures
- Evaluate what part of their structures worked well and what parts need improvement

More Info

Ages 11 - 18 years old – this overview will require adjusting to the unique needs of your students. You will use the “Building Structures” presentation

Building Structures – Part 2

45 minutes

Welcome and introduction

5 min

Do fan test

10 min

Students should set their structure 3 feet away from a fan. Blow the fan for 15 second and note how it does.

Do earth quake test

10 min

Put the structure on an unstable structure and wobble. See if the building can stand for 15 seconds of wobbling. Note any changes.

Talk it out

10 min

Discuss what worked and didn't work; brainstorm ideas to improve the structures

Q & A

10 min

Supplemental information for this lesson can be found in the [STEM@CGI at Home Activity Pack](#).