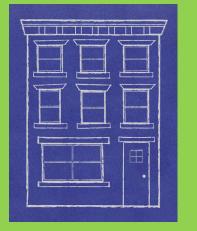


SCIENCE



OLYMPIAC





Mystery Architecture Task 1

Blueprints are drawings that architects use to plan new buildings. While architects today use computers to create building drawings, originally, the printing process created white lines on blue paper. Create your own blueprint with architectural parts to imagine your own building design! Look through the <u>Illustrated Building</u> Parts glossary. Then imagine what you'd like to design. Follow the design steps to <u>create a blueprint</u> of your design.

Mystery Architecture Task 2

Building a house of cards takes, patience, skill and lots of practice. **Bryan Berg** is a world champion "Card Stacker." Visit the link below and learn more about the art of Card Stacking. Then get a deck of cards and see what you can create. Snap a picture and share with your coach.

https://archkidecture.org/got-some-time-build-a-cardhouse/

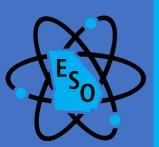




SCIENCE



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Skyscrapers are incredible structures! Discover the forces at work by building your own structural frame using toothpicks, marshmallows, and spaghetti. Most skyscraper designs use triangles because they are the strongest shape and can resist the forces of compression (pushing) and tension (pulling). Watch <u>this video</u> for some clues about how triangles can help your structure to be both tall and strong. Then try to <u>build your own skyscraper</u> using those materials.

Mystery Architecture Task 4

Now you're ready to test yourself. You will need to gather the materials listed to the right. Then set a timer for 30 minutes. Challenge yourself to build the tallest tower you can in 30 minutes or less, that will support a tennis ball. Your tower should be free-standing and not taped to the floor, wall or ceiling. Measure your structure and take a picture to share with your coach!

Materials

- 10 sheets printer paper
- 1 meter of tape
- Tennis ball