

Gumdrop Towers

Activity Provided by
Maria Mitchell Association

Materials:

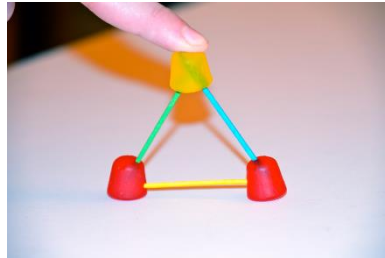
10 gumdrops (DO NOT EAT), 20 toothpicks

Optional: Add more gumdrops and toothpicks from home to build on the challenges below.

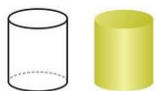
Instructions:

1. Poking toothpicks into gumdrops to connect them, try making the following shapes:

- a. Triangle
- b. Square
- c. Pentagon (5 sides)
- d. Hexagon (6 sides)
- e. Heptagon (7 sides)
- f. Octagon (8 sides)
- g. Nonagon (9 sides)
- h. Decagon (10 sides)



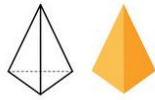
2. Once you master the basic shapes, which of the shapes can you make below? Can you make any other shapes?



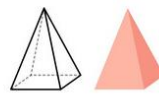
Cylinder



Cone

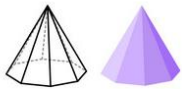


Tetrahedron

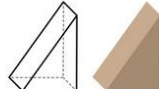


Pyramid

3. Challenge: After building shapes, try making a tower as tall as you can that can stand on its own without falling. Add more gumdrops and toothpicks from home to make it even bigger!



Octagon pyramid



Wedge



Triangular prism



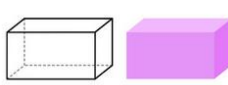
Octahedron

Why is this important?

Learning these shapes and how they connect together is a type of math called geometry. Geometry is important because it helps us understand how shapes fit together when designing and building. It helps us to think in shapes and sizes. The left side of our brain is logical and the



Cube



Cuboid



Pentagonal prism



Hexagonal prism

right side is creative. When we practice geometry and working with shapes, both sides of our brain work together. So, keep practicing to build your brain power!

Participate and Win Prizes

Scan this QR code and fill out a quick questionnaire to be entered to win a prize for participating in the Nantucket Science Festival 2021!



Another way to win prizes: Video and Photography Contest!

Take part in this science festival **technology** challenge. Make a video or shoot photographs of you or others engaged in STEAM (Science, Technology, Engineering, Art, Math) activities, post it on FaceBook or Instagram with #ACKSciFest and tag @The Maria Mitchell Association and @Nantucket Community School and be automatically entered to win one of our great prizes. You can do this activity, choose another from <https://www.mariamitchell.org/nantucket-science-festival> or come up with your own experiment or challenge.

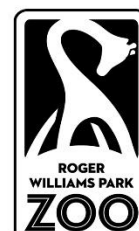
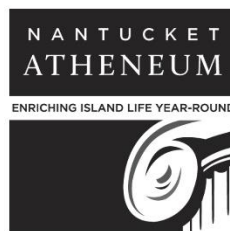
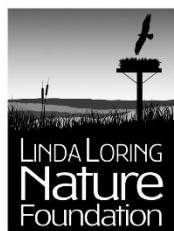
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Dr. David & Beverly Barlow

Community Activity Partners



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