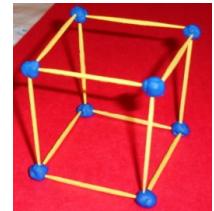




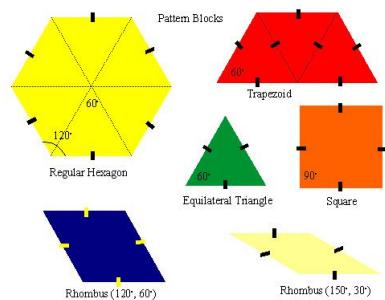
# DROP-IN STEM

## Geometric Shapes

Geometry is the study of shapes. Making Geometric Shapes from toothpicks is a fun opportunity to problem-solve and strengthen mathematical thinking. Geometry is all around us in art, nature, and the things we build. Learn to appreciate the role of geometry in life.



## Math



The hands-on study of geometric shapes helps to develop

- positive feelings about geometry
- a strong intuitive grasp of geometric properties
- the identification and classification of geometric objects
- a vocabulary of appropriate geometric terminology
- a stronger grasp of spatial relationships
- visual memory visualization skills

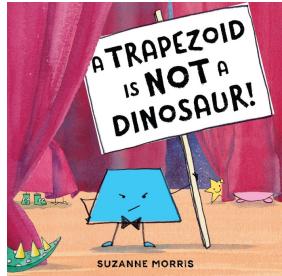
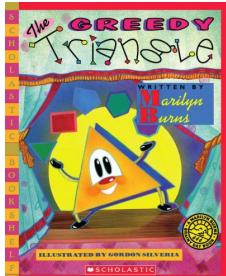
## Rules

- Toothpicks
- Gumdrops, marshmallows, or clay putty
- Raisins, jelly beans, or gummy bears
- Paper plate as a building surface
- Attach toothpicks together with gumdrops



## Inspiration

- Can you use 50 gumdrops and 100 toothpicks to build a bridge that spans a 6-inch gorge?
- Will your bridge hold 120 penny cars?
- Can you spell your name with toothpicks?

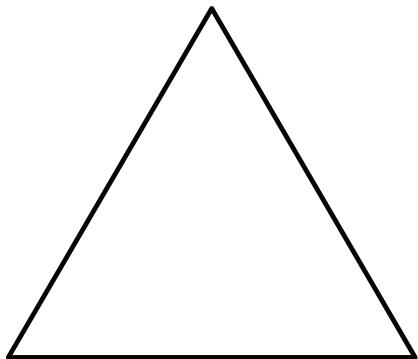


Geometric shapes are often found in stories. It's fun to see if you can make each one.

Check out the book *The Greedy Triangle* and become a shapeshifter! Read *A Trapezoid Is Not A Dinosaur!* to discover shapes and being accepted for who you are.

# DROP-IN STEM

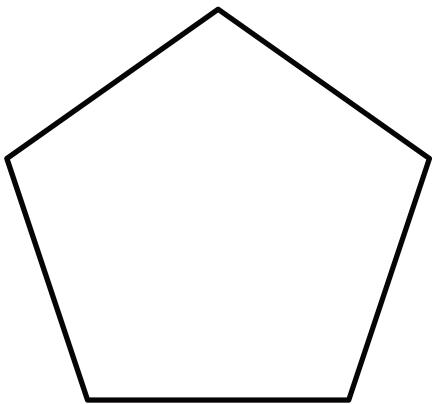
## Geometric Shapes



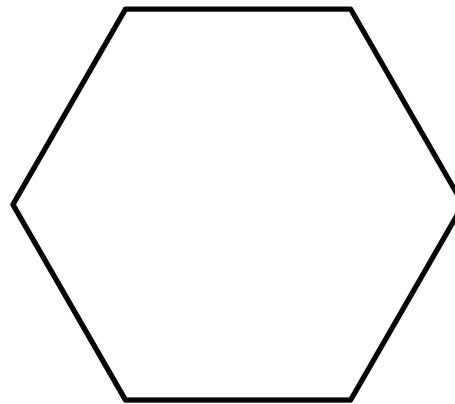
An equilateral triangle has 3 edges that are the same length and 3 vertices.



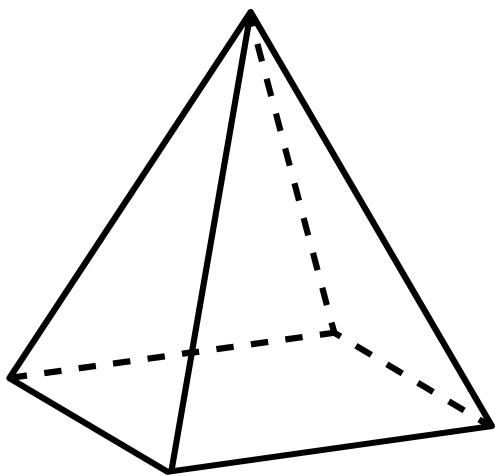
A square has 4 edges that are the same length and 4 vertices.



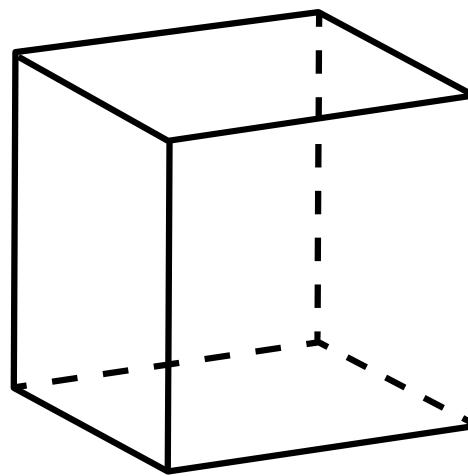
A regular pentagon has 5 edges that are the same length and 5 vertices.



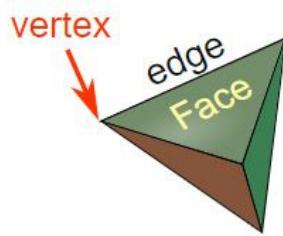
A hexagon has 6 edges that are the same length and 6 vertices.



A square pyramid has 4 triangular faces that meet in a point. Its 5th face is a square. It has 5 vertices.



A cube is a special kind of rectangular prism. All 6 faces are square. It has 12 edges and 8 vertices.



- Face: a single flat surface
- Edge: a line segment between faces
- Vertex: (plural - vertices) a corner
- Objects that have the same shape are similar
- Objects that have the same scale are congruent