

## Quadrilateral Stem Challenge

### Directions:

- Begin by giving your students toothpicks and a type of candy to stick the toothpicks in. (gum drops, marshmallows, ect.)
- Have each student make 2D shapes of the following...
  - Kite
  - Trapezoid
  - Parallelogram
  - Rhombus
  - Rectangle
  - Square
- Have your students create a structure with all 6 shapes in it. They may use the ones they have already created, or they may start over.
- You can have them paint the 6 shapes in 6 different colors.
- When they are finished, have students answer question on the free printable.

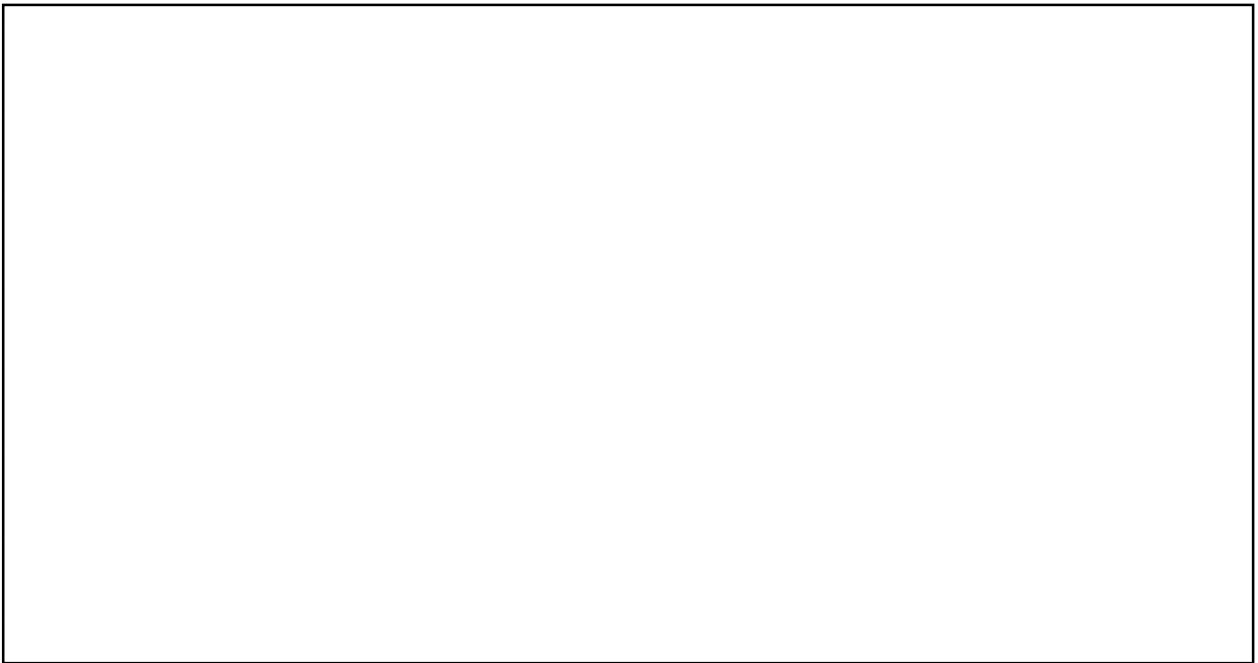
### Items Needed: (affiliate)

- [Toothpicks](#)
- Candy ([marshmallows](#), [gum drops](#), ect)
- Free printable
- Optional: [paint](#) and [paintbrushes](#)

## Quadrilateral STEM Challenge

Directions: Create a structure using the provided toothpicks and candy. The structure must have a kite, trapezoid, parallelogram, rhombus, rectangle, and square in it.

1. Draw a sketch of your structure. Make sure the shapes you included are highlighted.



2. Which shape was the hardest to include in your structure?

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3. Why do you think it was the hardest? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. Which shape was the easiest to include? \_\_\_\_\_

5. Why do you think it was easier to include this shape? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Using your structure, record how many of the following shapes you can find.

A. Triangle \_\_\_\_\_

B. Kite \_\_\_\_\_

C. Trapezoid \_\_\_\_\_

D. Parallelogram \_\_\_\_\_

E. Rhombus \_\_\_\_\_

F. Rectangle \_\_\_\_\_

G. Square \_\_\_\_\_

H. Did you find any other shapes? \_\_\_\_\_ If so, what other shapes did you find? \_\_\_\_\_