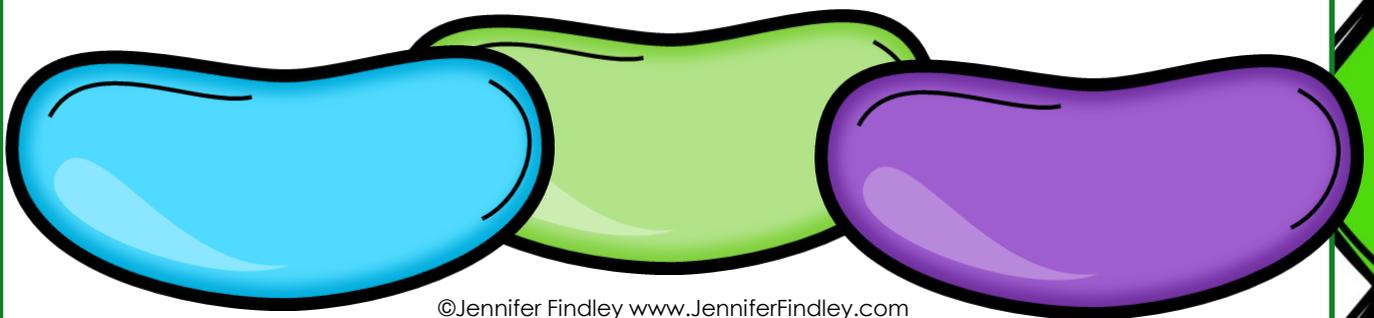


# JELLY BEAN

# STRUCTURES

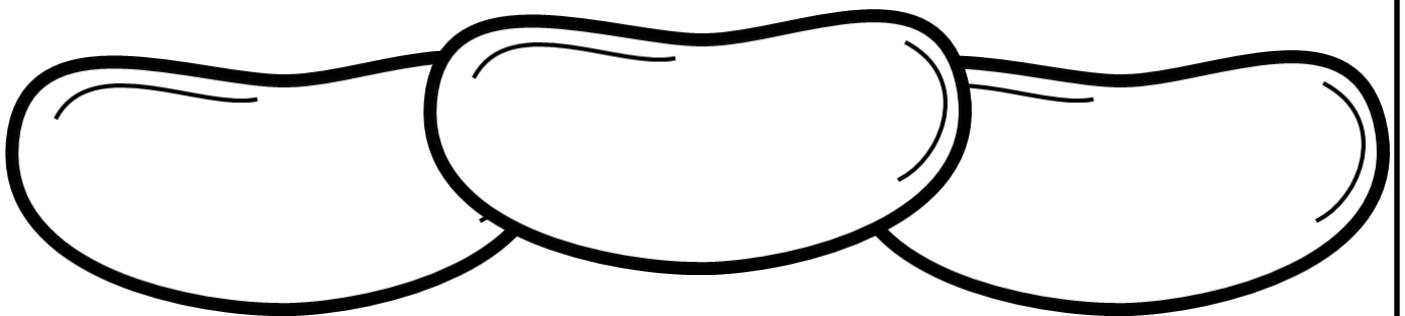
## *challenge*

Construct the tallest possible structure using toothpicks and jelly beans.



# JELLY BEAN STRUCTURES challenge

Construct the tallest possible structure using toothpicks and jelly beans.



# JELLY BEAN STRUCTURE CHALLENGE

**Objective:** Construct the tallest possible structure using toothpicks and jelly beans.

## **Materials:**

- Jelly beans
- Toothpicks
- Rulers or other measuring tools

## **Procedures:**

1. Gather the materials.
2. Sketch or write a plan for your jelly bean structure.
3. Measure your structure at least three different times during construction. Determine the final measurement of your structure.

# JELLY BEAN STRUCTURE CHALLENGE

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Materials:

Plan:

Measurements:

#1 \_\_\_\_\_

#2 \_\_\_\_\_

#3 \_\_\_\_\_

Final Measurement: \_\_\_\_\_

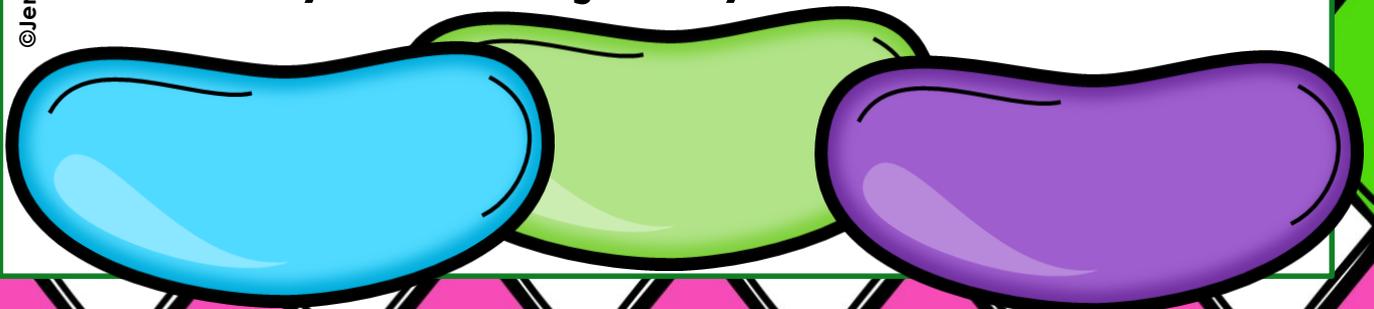
What worked well with your structure?

What was challenging?

What would you do differently next time?

# JELLY BEAN LAUNCHING challenge

Construct a working catapult to launch jelly beans and measure the distance traveled by the jelly beans.



# JELLY BEAN LAUNCHING challenge

Construct a working catapult to launch jelly beans and measure the distance traveled by the jelly beans.



# VERSION 1

Use the following version if you want your students to create catapults using the provided instructions.

# Jelly Bean Catapult



1. Gather the materials.
2. Build the fulcrum. Stack 5 craft sticks together and fasten them together by wrapping rubber bands around both ends.
3. Build the lever. Stack 2 craft sticks together and fasten them together by wrapping a rubber band on only one end.
4. Place the fulcrum in between the 2 sticks that form the lever. The farther you wedge it in, the more power your catapult will have.
5. Secure the fulcrum and lever together by using two rubber bands to make a crisscross pattern.
6. Use a hot glue gun to secure half of a plastic Easter egg to the very tip of the lever. This will be your catapult's bucket.



# Jelly Bean Catapult



Once your catapult is completed, begin testing it by measuring how far it will launch your jelly bean(s).

Trial Number	Distance Jelly Bean Traveled
Trial #1	
Trial #2	
Trial #3	
Trial #4	
Trial #5	

Using your data to support you, how successful was your catapult at launching the jelly bean(s)?

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What changes do you think you could make to your catapult to make it more successful?

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# VERSION 2

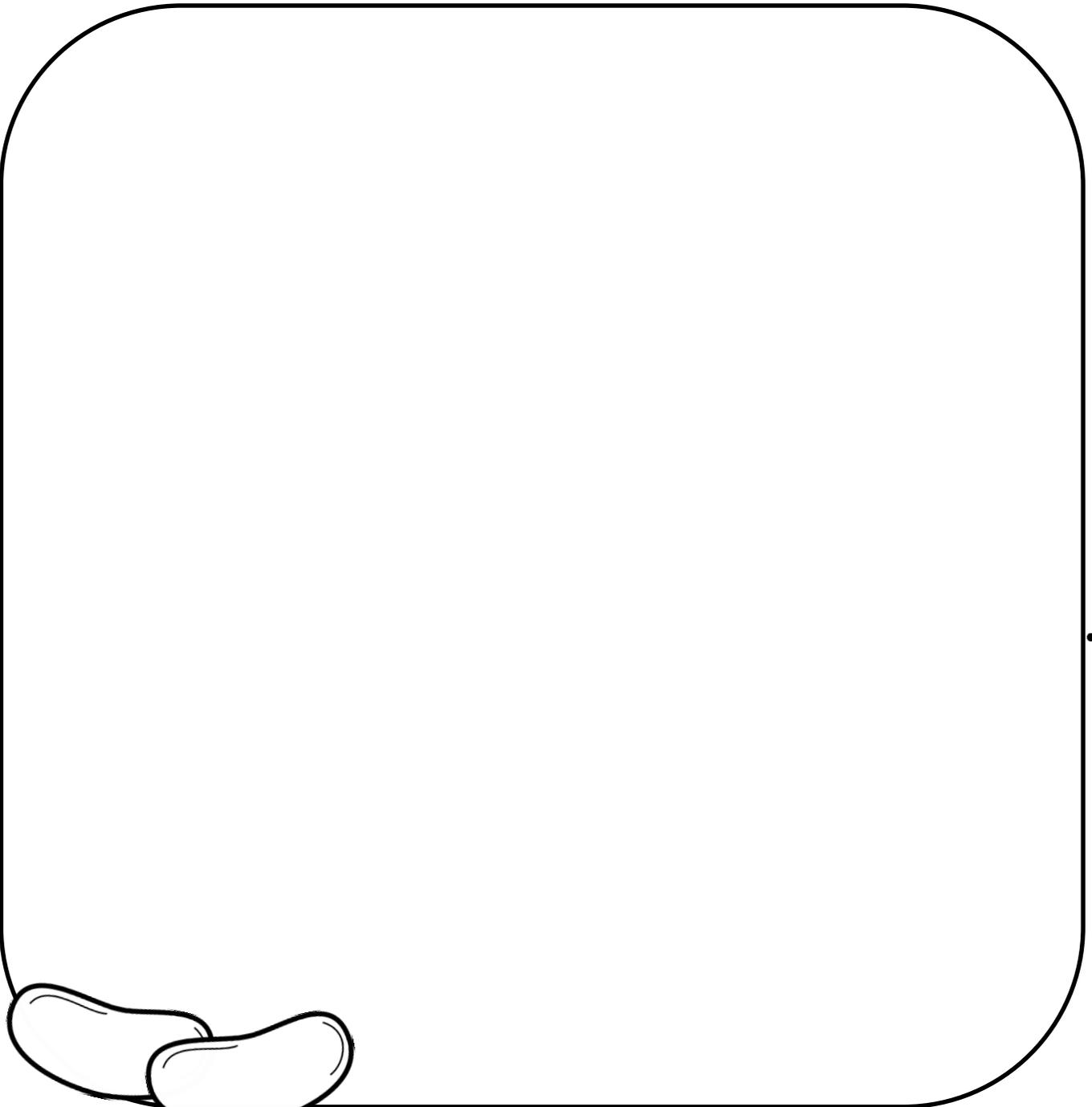
Use the following version if you want your students to create their own unique catapults without using the provided instructions.

# Jelly Bean Catapult

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Your task is to create a working catapult using any materials you can find to use and a spoon for the launcher. The catapult will be used to launch a jelly bean.

Before you begin designing your catapult, sketch a few plans to try out in the space below.



# Jelly Bean Catapult



Once you have a working catapult, begin testing it by measuring how far it will launch your jelly bean(s). Make any changes as needed to your catapult during the trials.

Trial Number	Distance Jelly Bean Traveled
Trial #1	
Trial #2	
Trial #3	
Trial #4	
Trial #5	

During the trials, what changes did you make to your catapult? If no changes were made, explain why you made the decision to keep your design the same.

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Using your data to support you, how successful was your catapult design?

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Thanks!  
Jennifer Findley

