

“In

# Outer Space”

Module 7, Adventure 1

The logo for "EXPLORE it" is enclosed in a black rectangular border. The word "EXPLORE" is in a bold, sans-serif font, with the letter "O" colored green and the letter "P" colored blue. The word "it" is in a smaller, lowercase, sans-serif font, with the letter "i" colored purple.

## Prompt:

Use straws, paper, and coloring utensils to make your own straw rocket - then launch it (safely)!

## Materials:

- 1 skinny straw
- 1 wider straw or an index card or quarter piece of paper
- Tape (masking or scotch)
- 1 piece of paper
- Pencil
- Coloring utensils
- Scissors
- *Optional: Explorer Notebook*

## Instructions:

1. Using a pencil, a piece of paper, and coloring utensils - draw your own rocket (try to keep the rocket less than 6 inches / 15 centimeters tall and less than 6 inches / 15 centimeters wide.)
2. If using a wide and skinny straw, make your launcher by:
  - a. Folding down (closing) one end of the wide straw and taping it shut so no air can escape if you blow into it.
  - b. Sliding the remaining open end of the wide straw over the skinny straw.
3. If using a skinny straw and an index card or quarter piece of paper:
  - a. Roll the index card or paper around the skinny straw so it is just a little wider than the straw and tape the paper so you have a tube.

- b. Fold down (close) one end of the paper tube and tape it shut so no air can escape if you blow into it.
- c. Slide the remaining open end of the tube over the skinny straw.



4. Head over to a safe launching area, take a deep breath, and blow into the skinny straw to launch the wide straw or tube.
5. Use tape to attach your rocket to the wide straw. Cut the straw or adjust the size of the rocket as needed.
6. Again, head over to the launching area. Give your rocket a name. Give a countdown and blow into the skinny straw to launch your rocket!
  - a. For an extra challenge, use a mark on the floor to mark how far your rocket goes. Then see if you can beat your own record!

*For explorers using an Explorer Notebook:*

1. Sketch out your rocket before making it on a piece of paper.
2. Lay out a ruler or tape measure on the ground and measure how far your rocket goes with each launch.

Check out the last page for a page design idea. You can use this or set up your page however you want!

## **Resources:**

1. Your breath is like rocket fuel! Watch actual rockets being launched:  
<https://www.youtube.com/watch?v=bkZac30P5DM>

## Extensions:

The following are optional steps you can take if you want to extend this adventure:

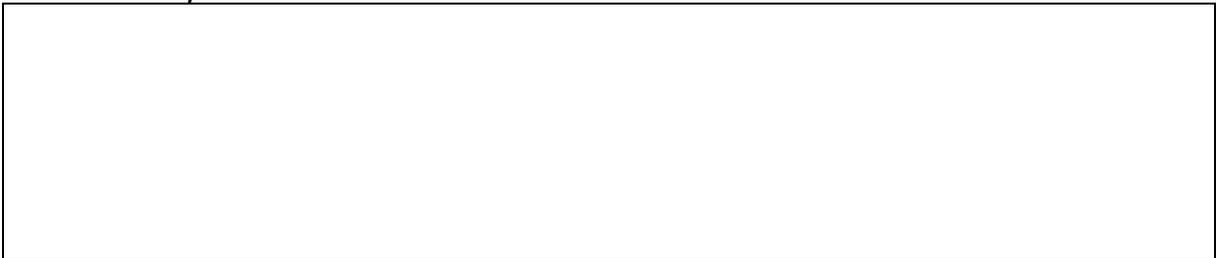
1. Either change your rocket or make a new one. See how changing things may affect the launch:
  - a. Angle of the launch.
  - b. How tight the rocket is on the skinny straw.
  - c. Fins/wings
  - d. Weight
  - e. Length
2. Lay out a ruler or tape measure on the ground and measure how far your rocket goes with each launch.
3. Go to the "In Outer Space" topic on Flipgrid and share your creation!

## Explorer Notebook

You can use this to help you set up your Explorer Notebook!

### Straw Rockets Module 7, Adventure 1

Sketch of my rocket:



Blast off!:

Launch #	Distance:
1	
2	
3	
4	