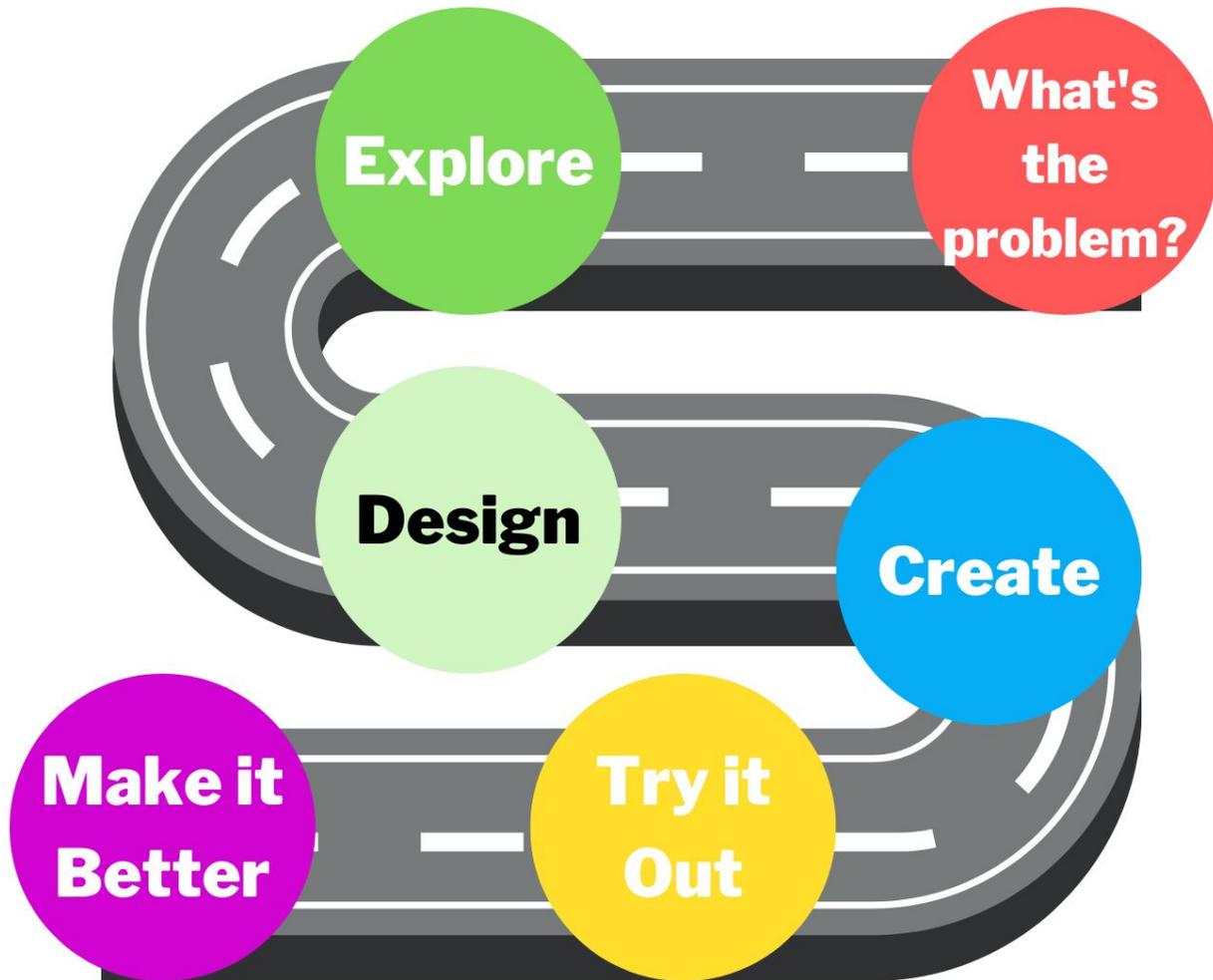


**LAUNCH**

**IT!**





# What's the problem?

We need to create a rocket that will travel to the moon (target).

Group  
Members

Annie

Ella  
Lucas

Noah

Allie

Going to the moon? You'll need a rocket. The rockets NASA sends to the moon go up to 18,000 miles (29,000 km) per hour. But it still takes about three days to get there. So, sit back, relax, and enjoy the view.

We Challenge You To...

...design and build an air-powered rocket that can hit a distant target.

Here are the materials that you will be using. Let's do some research online to help with this project



Materials (per rocket)

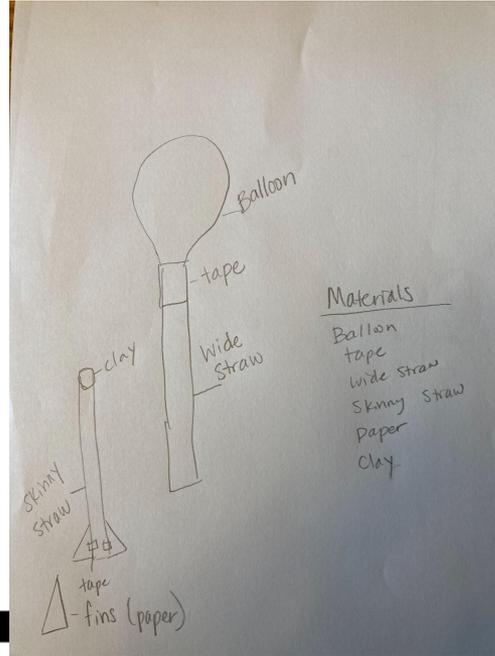
- balloon
- small lump of clay
- paper
- 1 wide straw
- 1 thin straw that fits inside the wide straw
- tape
- target (box lid or paper with a bull's-eye drawn on)
- scissors

# BRAINSTORM

Draw a sketch of your design. Don't forget to include labels.

**Think about things that might affect how your air-powered rocket flies.**

- **How long will your rocket be?**
- **How many paper fins will your straw rocket have—0, 2, or more?**
- **How will adding weight to the straw's nose or having fins affect how it flies?**
- **When you launch your straw rocket, how does the launch angle affect where it lands?**





Upload a picture of your balloon launcher.

- 1. First, build a balloon-powered launcher. Slide 1–2 inches (3–5 cm) of the thin straw into a balloon. Make a tight seal by taping the balloon to the straw.**
- 2. Next, build a straw rocket. Use the wide straw for the rocket. Seal one end. Either plug it with clay or fold the tip over and tape it down.**
- 3. Now launch your rocket. Blow into the thin straw to blow up the balloon. Slide the wide straw onto the thin straw. Aim. Launch!**



# of tries

# of fins

Did you hit  
the target?

<u># of tries</u>	<u># of fins</u>	<u>hit target</u>
1	0	X
2	2	✓
3	4	✓
4	6	X
5	8	X



How many times  
did you hit the target?

# Make it better

How could you make it better?

When 2 or fins were added, it did the best.  
More than 4 was too many.