

Space Exploration

Your Mission: Create a landing capsule to bring an astronaut.

Directions:

Building Phase: Design and build a landing capsule that keeps an egg from breaking.

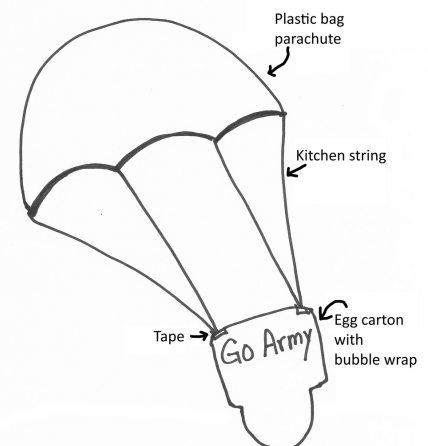
1. Aerospace engineers carefully design each project before they start building. Collect your materials. Think about how you can make a capsule that protects an egg after a long drop.
2. Draw a picture of your idea and label the different parts. Include a protective capsule and a parachute.
3. Now it is time to build. Build your landing craft from your design. Remember, your egg is the astronaut, so make sure it fits in the landing capsule. It is your job to secure its safety!

Testing Phase: Test your design. Experiment with new designs until you find the best one.

1. NASA tests all space capsules over and over to make sure they are safe for astronauts. Find a high location, like the top of a staircase or ladder, to serve as your drop zone. It is important that you drop the landing capsules from the same height each time. **If you use a tall object like a ladder, make sure you have an adult present to keep you safe.**
2. Seal your egg in a plastic baggie and place it in the landing capsule. Test your design by dropping it from the top of your drop zone.
3. Check your egg. Did it survive the landing in one piece? If it did not, think about why your capsule failed. What could you do differently?
4. If your egg survives the first drop and you want an extra challenge, try dropping your landing craft from higher up!

Materials:

- One raw egg per person
- Tape or glue
- String
- Scissors
- Newspaper
- Recycled materials like cardboard boxes, tissue paper, bubble wrap, and plastic bags



Space Exploration



Design your landing craft here!

A large, empty rectangular box with a thick gray border, intended for drawing a landing craft.

Drop Observations:

Seven horizontal black lines provided for writing observations.