

“In Outer Space”

Module 9, Moon Habitat

EXPLORE IT

Prompt:

Use newspaper and tape to build a habitat for astronauts on the moon! While you are working, think about...

- What shapes are the strongest for building with? Try rectangles, squares, and triangles. What other shapes can you try?
- How will astronauts live and work in their moon habitat? What types of rooms will astronauts need? (Maybe bedrooms, workspaces, bathrooms, kitchens, and more!)

Materials:

- A few days worth of newspapers
- Masking tape
- Decorating supplies (scrap paper, markers, etc.)

If you don't have newspapers, you can also use scrap paper or wrapping paper.

Instructions:

1. Read the prompt with your child.
2. With your child, practice creating “beams” to build with.
 - a. Take 2-4 sheets of newspaper and lay them flat on top of each other.
 - b. Start rolling the newspaper stack from one of the corners, so it creates a long, thin beam. If it's hard to get the rolling started, place a pencil in the corner and roll the newspaper around that.



(image from nasa.gov)

- c. Tape the beam closed.
3. Once your child gets the hang of creating beams, let them work independently on

- creating many more. (For younger kids, you might want to pre-rip some tape for them.)
4. Once they have enough beams to work with, invite your child to build with them. Start by making a two-dimensional shape, like a square or a triangle, then try to turn it into a three-dimensional shape, like a cube or a pyramid. Tape these shapes together to hold them in place.
 5. Let your child experiment with different 2D and 3D shapes. Encourage them to connect their shapes to make a large structure. (Some shapes might need more than two hands to make work!)
 6. As your child creates a large structure, read the prompt again with them and encourage them to think about the function of their moon habitat.

Resources:

This activity is adapted from an activity on NASA's website. Look through their activity guide to see one way of creating a moon habitat: <https://spaceplace.nasa.gov/moon-habitat/en/>. There is also a recipe for moon cookies!

Extensions:

If your child needs more challenges to go along with this activity:

- Invite them to create decorations for their moon habitat using paper and markers. Is there a flag hanging outside? A sign? A message to alien visitors?
- Ask your child about what goes inside their moon habitat – are there beds or chairs? Challenge them to create these things using the newspapers and masking tape.
- Invite them to add more rooms to their moon habitat to fit more people. Who else might live there with them?
- Work together to write and illustrate a story about how they reached the moon and what they found then they got there.

Together with your child, go to the "In Outer Space " topic on Flipgrid and share their moon habitat and adventures.