



Build a Moon Habitat Challenge



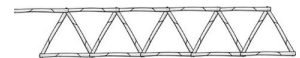
Link to full directions and moon information from NASA: <https://spaceplace.nasa.gov/moon-habitat/en/>

Gather materials – Newspaper (use a paper with large pages and use the full square spread) pencil, masking or packaging tape, scissors, ruler, stapler (heavy-duty, if available), materials for walls (bed sheet or other).

Do: Build Your Moon Habitat

Criteria: Must be lightweight & have an airlock (way to get in)

1. Use four sheets of newspaper. Lay the sheets out flat, one on top of the other.
2. Set the pencil in the corner and roll across on the diagonal. Use the pencil to help you get started, and then remove the pencil. Roll evenly, and not too thin. Tape the log shut. Repeat until you have 37 logs. Then trim the ends a bit to make all the logs the same length. They will be around 30 inches long. Now you will need a big, open space in which to construct the habitat. Work with an adult as needed to safely construct your habitat.
3. Staple three logs together to create a triangle. Be careful of your fingers when stapling. Repeat until you have five triangles. Tape could also be used to connect the triangles.
4. Staple the five triangles to each other at their bottom corners. Add connecting logs across the top.
5. Staple the remaining five logs together at the center to make a star.
6. Then raise the five connected triangles, or walls, off the floor and staple the ends together to form a five-sided (pentagonal) structure. It helps to have one person hold up the walls while another person staples.
7. Now staple the free ends of the star to the junctions of the triangles on the top of the base, and the structure will stand by itself! Add an airlock or way to get in and sides (bedsheet) if wanted.



Reflect and Apply

8. Discuss/write about the following: *What challenges did you have building your habitat? Could other shapes be used to build your habitat? If so, build a 2nd habitat and compare it to your 1st? How are they the same, different? Why would design of a lightweight habitat be important?* Go to the link at the top to learn more.
9. Share your learning with others and a photo of your habitat on social media with an adult's permission. Hashtags: #4hAtHome or #IowaSpaceGrantConsortium

Thank you to our partner [Iowa Space Grant Consortium!](http://www.spacegrant.org/)



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