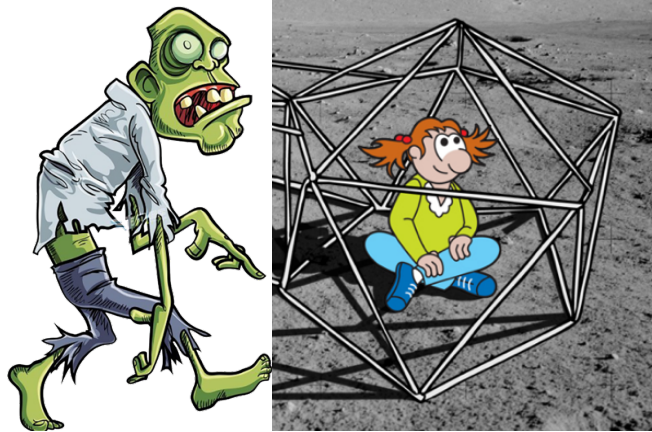


Building a Zombie Apocalypse Shelter

(Adapted from NASA: 'Space Play')

Introduction:

A zombie apocalypse has struck! You and your classmates must find a way to shelter yourselves from the hordes of zombies coming your way. **Here is the trick!** The materials to build your habitat must come from the lightweight materials already in your backpack. Good news is these zombies are infected with a virus that makes them allergic to paper and bed sheets. Today, we will build our own zombie apocalypse shelter that will keep us safe in a pinch. Use the **Stop & Think** questions as a time to collaborate as a group and share your opinion as we go.



Materials:

- ⇒ 40 sheets of packing paper per group
- ⇒ A pencil or writing utensil
- ⇒ Scissors
- ⇒ A stapler
- ⇒ 1 bed sheets
- ⇒ Tape

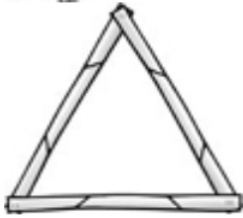
Protocol:

Use 2 sheets of packing paper to build each log. Lay the sheets flat, one on top of the other.

1. Divide into groups of 2 or 3. Set a pencil in the corner of the stacked paper and roll diagonally. Use the pencil to help you get started and then remove the pencil! Roll evenly, but make sure not to make the logs as thin as a pencil is. Once you roll one log, use tape to secure it shut. REPEAT THIS 20 TIMES! At the end, the group should have a total of 20 logs.



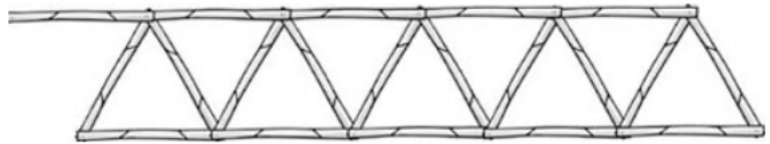
- a. Once the group has a total of 20 logs, trim the ends a bit to make sure they are all even.
2. **Stop & Think:** Why do you think it's important that the logs are rolled tightly? Why is it important to tape the paper logs shut?



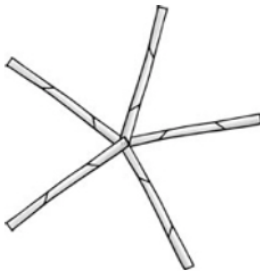
3. Staple 3 of the logs together to make a triangle. REPEAT THIS 5 TIMES! At the end the group should have a total of 5 triangles.

4. **Stop & Think:** What makes a triangle a good shape to build with?

5. Staple the 5 triangles to each other at their bottom corners. Use a stapler again to add connecting logs across the top.

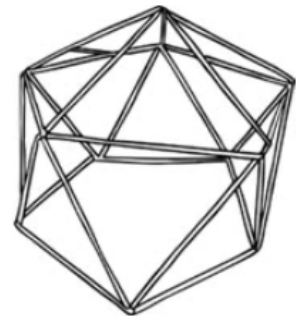


6. **Stop & Think:** Why do you think we added connecting logs across the top? How do the staples make it a sturdier structure?



6. At the end of step 3, the group should have 5 logs left. Use the 5 logs and connect them at the center to make a star. This can be done using a stapler.

7. Now raise the 5 connected triangles, or walls, off the floor and staple the ends together to form a 5-sided pentagonal structure. It will help if one person in the group holds up the walls while another person staples.



8. Then staple the free ends of the star to the junctions of the triangles on the top of the base, and the structure should be able to stand by itself!

9. To test the strength of your shelter, place a bed sheet over the top to keep you concealed from the zombies.

10. **Stop & Think:** If your structure was able to stay standing with a bed sheet, what do you think made it strong? If your structure fell down with the bed sheet, what would you do differently next time?