

Structure Trio

Objective: Try making 3 different structures using a variety of materials.

Structure #1: Cup Tower

Supplies:

Small cups

Piece of paper

Procedure/Activities:

- Using a small stack of cups, try building a tower on top of a sheet of paper.
- When you finish building your tower, give the paper underneath a gentle shake. Does your tower still stand?
- Try experimenting with tower design. Can you design a tower that can still stand after the paper shakes? How tall a tower can you build?

Structure #2 Marshmallow Towers

Supplies:

Marshmallows

Toothpicks

Paper Plate

Pennies

Procedure/Activities:

- Using only toothpicks and marshmallows, trying build the following:
 - A flat triangle
 - A flat square
 - A pyramid
 - A cube
- Once you have mastered basic shapes, try building a tower. How tall can you make the tower?
- After building your tower, try to build a structure that can support a paper plate.
 - Add a penny to the plate. How many pennies can you add before the structure collapses?

Structure # 3: Index Card Tower**Supplies:**

Index Cards

Procedure/Activities:

- Using only index cards, try building a tower. You can rip and fold the index cards, if needed.
 - How tall can you make your index card tower?

Discussion Questions for the Family:

What shape do you think is the strongest? Why?

What shape do you think is the weakest? Why?

What was difficult about building a tall tower? What was easy? What was fun?

What was difficult about building a strong building? What was easy? What was fun?

Which was your favorite tower to build? Why?

Which was your least favorite tower to build? Why?

What was your favorite building material? Why?