

# Cat Stack

**Goal:** Create three cats that will stack.

**You will need:**

- Clay, play dough, or other modeling material
- Ruler
- Optional tools: plastic knife, rolling pin
- Optional materials: googly eyes, pipe cleaners, foam pieces, yarn



**What to do:**

- Divide the clay into three pieces.
- Think about the shapes and sizes of the cats. What strategies will you use to create a stack that will remain standing? Consider how you will form the cats so they will stack one on top of the other without falling.
- Make three cats out of clay and other materials. Stack the cats.
- If your stack of cats topples easily, think of other designs you can try and test them out.
- Measure your stack. How tall is it?

**Other things to try:**

- Try to arrange the cats in a different way so it changes the height of the cat stack. How is the new cat stack arrangement different? Did the height of the cat stack change?
- Make several more cats. Add them to the stack. Does it remain standing?
- Make ten cats. Find all of the ways you can stack ten cats in two groups. For example, ten cats can be arranged into one group of four cats and one group of six cats. How many other ways can you arrange the 10 cats into two groups? Keep a list of your combinations.
- Try stacking and grouping household objects, toys, or stuffed animals.

