

# Tall Tower Challenge

**What is the challenge?** Build the tallest tower you can from the fewest materials possible.

## What you need:

- 30 identical cups, blocks or other object you can stack.
  - *Note: We do not recommend using building bricks for this activity.*
- Timer or stopwatch (your phone works great!)
- Measuring tape



## What to do:

- Gather your chosen material.
- Set the timer for 3 minutes.
- Once you are ready, start the timer and get to building!
- How high can you build your tower?
- Once the timer has stopped, count how many of your material you used. Did you use them all?
- Measure how tall your tower is in inches. Write it down so you don't forget.
- Try to build your tower again, using less of your material. Can you get the tower as tall in the same time frame?
- Measure it again and see if you succeeded!
- Try one more time with only 20 of your material. What changes did you have to make to your tower? Were you able to make it as tall?





### STEM connection:

- Problem solving is the process of finding solutions. In this case, the challenge is to build a tower as tall as you can using only a limited amount of materials.
- This means you had to explore your options and use trial and error to determine the best way to build the tower! Did it take you more than one time to build your tallest tower?
- Scientists and engineers use problem solving every day.
- What are some everyday problems you have that you could use problem solving to find the solution?

### Take it further:

- Try using a different material. Compare the cups to the blocks, or use something different.
- Ask yourself:
  - Which material is the easiest to work with?
  - Which was the hardest to stack?
- Try it with a team. Find 1-2 more people and see if you can make one tower together. What did you do differently when working with others?

### Notes for adults:

- This activity helps with fine motor skill building.
  - For younger learners, extend the time period or skip that part.
  - For older learners, shorten the time period for a bigger challenge.

