**mixing in**
**MATH**

## Goal: Build the highest tower you can out of recycled materials

**Grades:** K–6+

**Minimum number of participants:** 1

**Suggested grouping:** divide into pairs

**Time:** 20-60 minutes

**Math:** 3-D geometry; measurement; spatial sense

**Materials:**

recycled yogurt containers of different sizes, small boxes, or other objects that can be stacked: enough for each child or pair to build tall towers

**Prerequisites:** none

**Books about blocks and towers:**

*Block City.* Stevenson, Robert Louis (Simon & Schuster, 2005).

*The Man Who Walked Between the Towers.* Gerstein, Mordechai. (Roaring Brook Press, 2003).

### Before beginning

Cut out an award (p. 2) for each tower or child.

❶ **How can you make a tall tower?**

*Has anyone stacked blocks up to make a tower? How high was it? How did you make sure it didn't topple over?*

**Talk About…**

Explain that everyone will build a tower as high as they can. Everyone will have different materials, so you don't need to compare your tower with others.

Distribute building materials.

*I used the biggest box at the bottom to make a strong base.*

❷ **Build!**

After a few minutes, call the group together to share ideas:

*Which shapes and sizes make a good tower base? Which work well in the middle?*

**Talk About…**

Children keep building until about 5 minutes remain.

❸ **Tell about your tower**

Each child or pair wins an award on their turn. Awards should be related to size or shape, for instance, most triangles, widest tower, or tower closest to 5 feet high. Decide on awards together.

### Variations

**One block at a time (easier).** Gather a group. Predict how tall a tower you'll make if each person contributes one block. Then try it and see.

**Tall as You (harder).** Build a tower as close as possible to your own height.

**Tabletop towers (same as main activity).** If floor space is tight, build towers on a table. Children keep their feet on the floor when they build.

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**Building Achievement Award**

Outstanding Construction Feature

_____

Awarded to Engineer(s)

On this day _____ in the year of _____

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