

# Stack 'Em Up



A cup isn't very tall. But what about a lot of cups? Your challenge is to build a tower just made out of cups. How high can you go? Remember, the sky's the limit!

## What to Do

### 1 Get what You need.

- Lots of paper or plastic cups (any size works, but it's easier if they're all the same size)

### 2 Stack some CUPS.

Set one cup directly on top of another, as shown below. How high can you build before the stack falls over? (No helping by holding the tower up!)

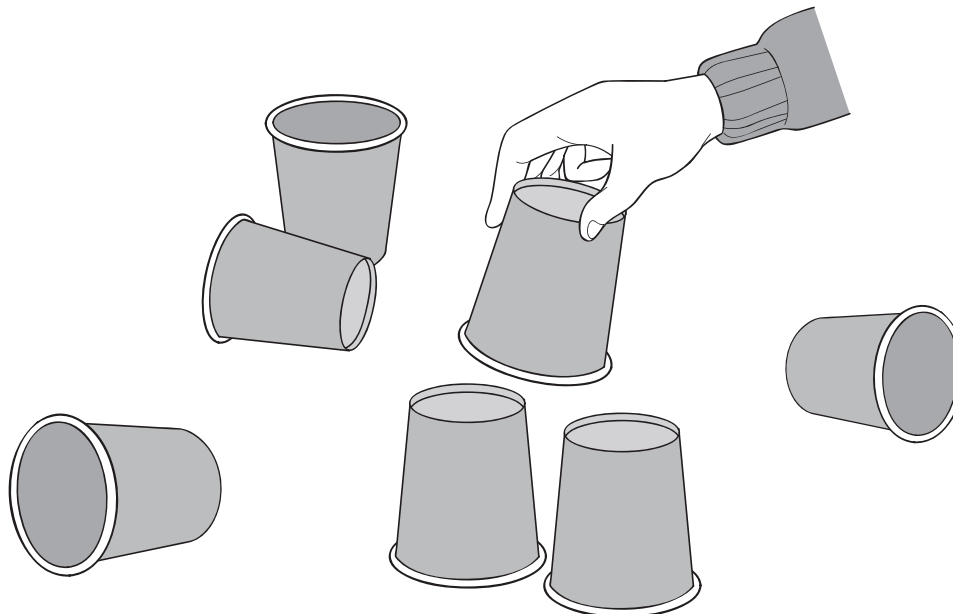


### 3 Build a tower using the CUPS.

How can you help the cups be more stable? Test out some ideas. Try to make a tall, stable tower that's as tall as you are.

### 4 Take down Your tower and build a taller one.

Use what you learned from building your towers. Put your cups together in a new way to make a tower that's even taller.



### Chew on This

Gravity—a tower's worst enemy? Maybe. Gravity can make a tower fall. But it also holds the cups in place! The trick for surviving gravity's pull is to distribute the tower's weight properly. For example, a wide base spreads the weight over a broad area, helping to keep a tower stable. Making sure it's not "top heavy" helps keep a tower from tipping over. And evenly setting the cups upon one another helps the lower cups fully support the upper ones.

# Dig Deeper

- \* Build another tower, but change one thing. What about making a wider or a narrower base, or one that is round, square, or triangular? How about using bigger or smaller cups or a mix of sizes? Make a prediction and test it out.
- \* Make another tower using a different building material, such as coins, marshmallows, or cardboard boxes.
- \* Like building tall things? Get the Arch, the Financial Support, and the Tall, Sturdy Building challenges from the ZOOM Web site at [pbskids.org/zoom/activities](http://pbskids.org/zoom/activities).
- \* Like doing amazing things with paper cups? Get the Paper Cup Walk and the Columns challenges from the ZOOM Web site at [pbskids.org/zoom/activities](http://pbskids.org/zoom/activities).



Watch FETCH! on PBS KIDS GO! (check local listings) and visit the FETCH! Web site at [pbskidsgo.org/fetch](http://pbskidsgo.org/fetch).

Vikes, that's a bit too high up in the air for me, thank you. Think I'll keep my feet on the ground and look for a first-floor doghouse near a Chinese restaurant.



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Fold

# Fetch!

# Stack 'Em Up

Help! My "person" is talking about knocking down my doghouse and putting in a swimming pool. I'd have to move! But where would I live? Hmmm, a place at the top of a tall building would be pretty nice. Kind of a penthouse doghouse. I know! You can help me build a really tall structure! Unfortunately, due to budget cuts, the only building materials I can offer you are a bunch of cups that I got a good deal on.

# GOOO FETCH!

