

Tower challenge

Ages 5–8

Construction

35 min main activity

Under \$2 a pair

Session goal: Each pair builds a free-standing tower that holds a tennis ball for five seconds.

MATERIALS, WITH SUBSTITUTE

Per pair: 10 plastic cups, 20 craft sticks, 1 roll of masking tape. One tennis ball for testing. Substitute: rolled newspaper if the craft sticks run out.

PREP BEFORE CHILDREN ARRIVE

10 minutes. Pull the Build tub, set a tray per pair, tape a start line on each table.

EXPLAIN IT IN TWO SENTENCES

"You have 20 minutes and these materials to build the tallest tower you can. It has to stand on its own and hold this ball for five seconds."

BLOCK	TIME	WHAT HAPPENS	STAFF NOTE
Demo	5 min	Build one weak tower and let it fall. Ask the room why it fell	Take their answers before offering yours
Build	20 min	Pairs build from their tray. One warning at five minutes left	Circulate and ask questions, don't fix towers
Test	5 min	One pair at a time places the ball, everyone watching, five-second count out loud	Applaud the collapses as loudly as the survivors
Close	5 min	Cleanup, then a show of hands for the tallest survivor	Trays back in the Build tub for next time

Scaffold

Pre-build a three-cup base so the child starts from something stable.

Stretch

Set a height target in cup-lengths, then test with a hand fan for wind resistance.

Assessment

The tower either holds the ball for five seconds or it does not. No rubric needed.