

Tower Power

Roll a die to determine how many blocks to add to a tower. Keep going until the tower falls over.



Materials

- Blocks or other building materials (*TIP:* Use building materials that come in a variety of shapes, like wooden blocks, to encourage problem solving. Use smaller blocks for a longer game and taller tower.)
- Choose one—die, number spinner, or number cards—to establish how many blocks to add.

Setup — Less than 5 minutes

- Set out a collection of blocks, and the die, number spinner, or number cards.

Instructions

1. Child 1 rolls a die and, based on the number they rolled, says the number of blocks to add to the tower. Child 2 tries to stack that many blocks to start the tower.
2. If the tower does not fall over, the children switch turns and child 2 rolls the die. Child 1 adds that number of blocks to the top of the tower.
3. The players continue taking turns rolling the die and adding blocks until the tower falls over. Both children count how many blocks they were able to add altogether.

Checks for Understanding

To deepen children's learning about early math concepts, talk and ask questions while doing this activity together. Here are some examples to get you started.

Counting One-to-One

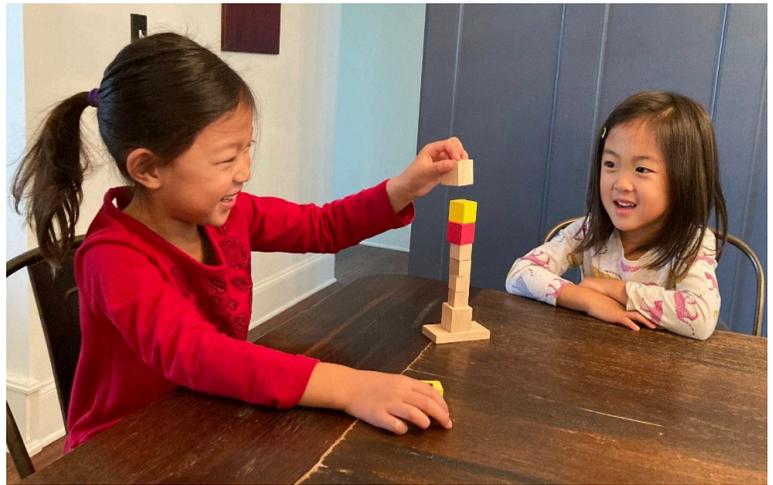
- “How can you figure out how many blocks you need to add to your tower (based on the die roll)?”
- “Show me how you counted your blocks. How did you keep track of the ones you already counted?”

Cardinality

- “How many blocks are in your tower in all?”
- “How many should you add this time? How many blocks do you have?”

Addition and Subtraction

- “How many blocks will be in your tower when you add one more?”
- “How many more do you need to get to 10 blocks high?”



Activity Modifications

Once you have tried out the activity, here are some other things you can do. Try these modifications to keep the activity interesting and challenging for children all year.

Make It Easier

- Have the children stack as many blocks as they can one at a time without using a die, spinner, or number card.
- To focus on numeral recognition, use a die with numerals.

Make It Harder

- One or more children can roll two dice and stack the number of blocks equal to the sum.
- Before they start playing, have children estimate how many blocks the tower can take before it falls over. Then determine if their estimates were more or less

than the actual number of blocks it took to knock down the tower.

- Make it a competition. Each child gets their own die and set of building materials. Children build their own towers by adding the correct number of blocks based on the number they roll on their die. The child whose tower stays up the longest wins.
- Ask children to build two towers, each one with a different type of blocks (for example, wooden blocks and foam blocks). Have them record how many of each material it took for the tower to fall over (they can first draw the objects and then move to using tallies or other representations). Children can also estimate which material will fall over sooner and how many units of each material it will take for each tower to fall over.
- Connect this activity to other activities by having them plan a tower with a certain height in advance and then try to build it (Build Together); or have them draw the tower by representing the number of blocks they stacked (Draw Your Building).