



Blowing Off S.T.E.A.M. The Bounce Challenge



Your Mission:

Using available materials at your home, design a pathway for a bouncing ball. The ball must bounce its way along the pathway without hitting the floor, eventually leading its way into a cup with a diameter no greater than five inches (12.7 centimeters).

Key Questions:

1. How many consecutive times can you make the ball bounce along the pathway before landing it in the cup?
2. How many different surfaces can your ball strike before entering the cup?

Science - Technology - Engineering - Art - Math

Brainstorm

- Which materials can be useful in building your bounce challenge pathway?
- Do certain balls work better than others?
- What can you use to create angles allowing the ball to continue or change its trajectory?

Optional

For added excitement, add a point value for each surface used and for each successful bounce. You can even add bonus points for eventually landing the ball into the cup.

Words of Wisdom

- Experiment with different balls and surfaces. Some work better than others.
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- Start small. Practice bouncing the ball off *one* surface then into the cup. *Gradually* add more surfaces and bounces.
- This mission takes time and patience. Take a break if needed.
- Teamwork is encouraged. Therefore, feel free to work with family members.

Need Help? Watch this [Bounce Challenge](#) video.