

STEM Challenge

Build a Marshmallow Tower

Objective

To construct the tallest tower using only 100 marshmallows and toothpicks.

Materials

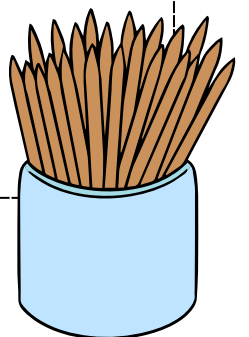
- Marshmallows
- Toothpicks
- Measuring Tape

Instructions

- Hand out 100 marshmallows and plenty of toothpicks.
- Explain the objective.
- Allow 5 minutes for planning and designing. Participants can try out building techniques if desired.
- Allow 20-25 minutes for building.
- Measure the tower.

Challenge Questions

- What shapes and structures make the tower more stable?
- How can you improve the strength and height of the tower?
- Could you describe the forces acting on the tower?
- If you could do the challenge again, what would you do differently?



STEM challenge

CONSTRUCTION CHALLENGE: MARSHMALLOW STRUCTURES



Instructions:

Plan, design and construct a famous building using marshmallows and toothpicks. Your structure must be able to stand freely. Test and modify your design after constructing.

Materials:

Marshmallows

Toothpicks

Constraints:

Allow: 5-10 minutes for design, 15-20 minutes for building, and 5 minutes for discussion.

STEM challenge

Prototype: Research a famous building and sketch it.

What steps will you take to build your structure?

STEM challenge

Reflect on your design. Does it resemble the structure you modelled it from? Was it freestanding? Make modifications if required.

 yes no

Rate your design:



What did you like about your design?

What would you do to improve it next time?
