

# Spaghetti Tower Challenge

## **Objective:**

To engage teenagers in a hands-on engineering challenge where they design and construct spaghetti towers using limited materials, fostering teamwork, creativity, and problem-solving skills.

## **Materials:**

Spaghetti  
Marshmallows  
Monopoly money  
Jenga blocks  
Gumdrops  
Toothpicks

## Activity Structure:

### **Introduction** (5 minutes):

Briefly introduce the challenge: Design and construct spaghetti towers using limited materials. Explain the competition aspect: Teams will compete to spend the least amount of "money" while meeting design parameters. Present design parameters: Discuss criteria such as tallest, strongest, most wind resistant, etc. Divide participants into small groups for better collaboration.

### **Planning Phase** (5 minutes):

Each team brainstorms and plans their tower design, considering the given parameters and available materials.

### **Construction Phase** (30 minutes):

Teams begin constructing their towers using spaghetti sticks, marshmallows, and additional materials like Jenga blocks. Facilitators offer guidance and support as needed.

### **Presentation and Evaluation** (10 minutes):

Each team presents their tower, explaining their design choices and strategies. Evaluate towers based on criteria such as height, stability, creativity, and cost-effectiveness.