



Build an Igloo

Lesson Objective(s):

- Students will design and conduct an igloo learning about basic engineering principles such as stability and weight distribution as they use their creativity and problem solving skills to create the structure

Standards:

- Upper elementary 4th-5th or middle school 6-8

Suggested Materials:

- marshmallows
- consumables
- toothpicks
- small action figure
- writing material to create a blueprint

Introduction:

- Introduce the topic by possibly showing a video of building an igloo, or the history behind where it came from and then pose the question of “How do they stay standing?”
- Talk about different engineering shapes such as domes as well as weight distribution
- Explain the goal of the build

Lesson Activity:

- Students will be in groups of 3 to first sketch out a blueprint design for their igloo
- They can determine the materials and how much of each that they will need to complete their build



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Lesson Plan Activity

- Once decided on the strategy for their build they will begin to construct their igloo based on their blueprint
- Testing by trial and error should be encouraged during the building phase
- Once the build is complete they can take the action figure and place it on top of the igloo to test balance and stability
- Students will discuss the results of their testing

Closing:

- Students will answer the following questions:
 1. What would you do differently?
 2. What did you learn about problem solving and teamwork?

Assessment:

- Students will submit group write up and blueprints

