

## 56. Jinx Wood Tower

**Classroom Activity:** Students will gain an understanding of the strength and stability of a structure, including the parts that stabilize it and how they function while building a tower made of jinx wood.

**Grade:** 3

**Strand (s):** Understanding Structures and Mechanisms

This task addresses the following overall expectations:

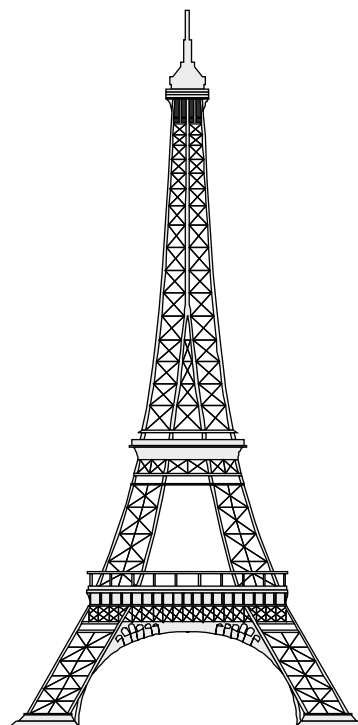
- investigate strong and stable structures to determine how their design and materials enable them to perform their load-bearing function;
- demonstrate an understanding of the concepts of structure, strength, and stability and the factors that affect them.

and the following specific expectations:

- follow established safety procedures during science and technology investigations;
- investigate, through experimentation, how various materials and construction techniques can be used to add strength to structures;
- use technological problem-solving skills, and knowledge acquired from previous investigations, to design and build a strong and stable structure that serves a purpose;
- use appropriate science and technology vocabulary, including compression, tension, strut, ties, strength, and stability, in oral and written communication;
- use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes.
- identify the strength of a structure as its ability to support load;
- identify the stability of a structure as its ability to maintain balance and stay fixed in one spot;
- describe ways to improve a structure's strength and stability;
- describe ways in which different forces can affect the shape, balance, or position of structure.

**Assessment Categories:**

- Knowledge and Understanding



- Thinking and Investigation
- Communication
- Application

**Type of Activity:** Classroom

**Preparation:** Time to plan: 2 hours

Gather supplies and build a model beforehand.

**Materials/Resources for teachers:**

Jinx wood pieces  
Saws  
Miter boxes  
Glue guns  
Popsicle sticks  
Gussets

**Activity Description:**

In small groups, build a tower out of jinx wood. Use a weight (a brick) to see if the tower will withstand the weight and not fall over when pulled on with 1 Newton of force.

The tower has to be at least 40 cm tall

**Tips:**

Build a model beforehand.