

# Monkey Business

2<sup>nd</sup> Grade

Unit 5 – Hand Me Down Tales From Around the World

Text Connection: Caps For Sale by Esphyr Slobodkina

## Design Challenge Summary

**Challenge:** What will the students be required to do?

The monkeys need a place to hide from the peddler with his caps. Build a tree at least 8 inches tall that can hold as many monkeys and caps as possible. Remember trees have roots and stems.

**Standards:** What standards are addressed?

### Science:

- NS.1.2.1 Communicate observations orally, in writing and in graphic organizers
- NS.1.2.2 Develop questions that guide scientific inquiry
- NS.1.2.3 Conduct scientific investigations as individually and in teams
- NS.1.2.4 Estimate and measure length...
- NS.1.2.5 Collect measurable empirical evidence in teams and as individuals
- NS.1.2.6 Make predictions in teams and as individuals based upon empirical evidence
- NS.1.2.7 Use age-appropriate equipment and tools in scientific investigations
- LS.2.2.6 Describe the function of the following plant parts: leaves, stems, flowers, roots

2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

### Math:

Mathematical Practice Standards

- 2.MD.1 Measure the length of an object by selecting and using appropriate tools

### Other:

- W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points and provide a concluding statement or section
- W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts and feelings, use temporal words to signal event order, and provide a sense of closure
- W.2.7 Participate in shared research and writing projects
- SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups
- SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information or deepen understanding of a topic or issue
- SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences
- SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification

**Result:** What will students know, value, and be able to do as a result of the lesson? What's the big idea?

- Know and apply the engineering design loop process.
- Demonstrate ability to modify designs based on observations and predictions.
- Work collaboratively on solving a problem.
- Experiment with the effect of weight and force on a structure.

# Monkey Business

**Assessment:** What evidence will be used to determine student learning?

Did they design a tree with roots and stems?  
Did their tree support the weight of monkeys and caps?  
Did they follow the design loop process?  
Did they work collaboratively?

**Prior Knowledge/Experiences:** What prior content knowledge and skills will the students need?

Experience with the Engineering Design Loop process  
Connections to the Mathematical Practices  
Investigations/inquiry in Science  
Experiences with balance and parts of plants

**Summary/Connections:** How will this design challenge connect with new/future learning, other content areas, real world experiences, etc.?

This lesson will help students develop problem solving skills and collaboration skills that are essential in succeeding in the 21<sup>st</sup> century. It will allow student the opportunity to transfer and apply skills from various content areas within one task.

**As a summary activity, you could engage students in:**

**W.2.2** Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points and provide a concluding statement or section

**W.2.3** Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts and feelings, use temporal words to signal event order, and provide a sense of closure

**Extensions:**

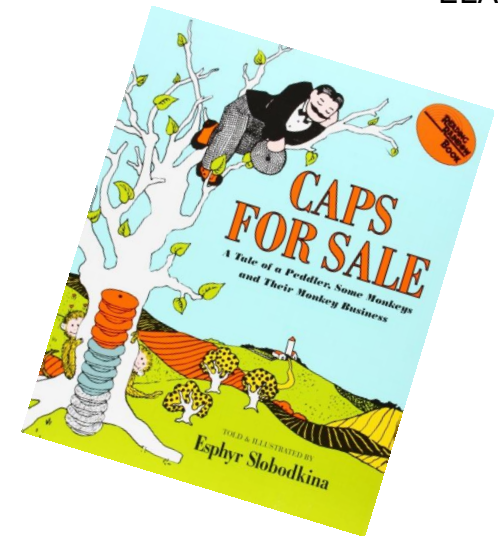
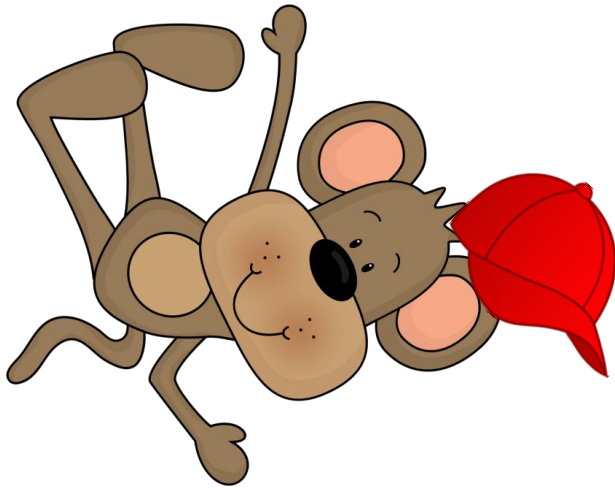
Redesign tree with new height requirements

**Materials/Equipment/Preparation:** What materials and equipment will students need to successfully complete this design challenge?

**Materials:**

Large Paperclips (Monkeys)  
Real pennies (**Hats taped to monkeys before STEM**)  
Paper Bags  
Index Cards  
Pipe Cleaner  
Scotch Tape  
Popsicle Sticks  
Straws

# Monkey Business



The monkeys need a place to hide from the peddler with his caps. Build a tree at least 8 inches tall that can hold as many monkeys and caps as possible. Remember trees have roots and stems.

## Group Supplies:

- Large Paperclips (Monkeys)
- Real pennies (Hats taped to monkeys)
- Paper Bags
- Index Cards
- Pipe Cleaner
- Scotch Tape
- Popsicle Sticks
- Straws