Unit 2 Rigamajig

Content Area: **Technology**
Course(s):
Time Period: **January**
Length: **4 Days**
Status: **Published**

Unit Overview

The Rigamajig unit is an introduction to large-scale collaborative design using physical objects. While most units in the 2nd grade curriculum are digital, the Rigamajig set allows students to create real-world structures. Students will investigate properties of nut and bolt connectors, angle braces, ropes and pulleys, and other pieces included in the Rigamajig set. During the course of these investigations, students will learn basic mechanical engineering principles, such as the strength of triangle bracing, mechanical advantage through leverage, or design of axles and wheels.

Standards

CS.3-5.8.1.5.CS.3	Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.
CS.3-5.8.2.5.ITH.3	Analyze the effectiveness of a new product or system and identify the positive and/or negative consequences resulting from its use.

Materials

- Rigamajig Kit

Assessment

Formative Assessment

- Teacher Observation
- Checks for Understanding
- Exit Tickets

Summative Assessment

- Performance Tasks & Projects

Accommodations & Modifications

Special Education

- Follow IEP Plan which may contain some of the following examples…
- In class/pull out support with special ed teacher or assistant
- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

504

- In class/pull out support with special ed teacher or assistant
- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

ELL

- Translation device/dictionary
- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

At-risk of Failure

- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

Gifted & Talented

- Independent projects
- Online games
- Extension activities

Interdisciplinary Connections

SCI.3-5.ETS1.A	Defining and Delimiting Engineering Problems
SCI.3-5.ETS1.B	Developing Possible Solutions
SCI.3-5-ETS1-2	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

Constructing Explanations and Designing Solutions

Planning and Carrying Out Investigations

Career Readiness, Life Literacies & Key Skills

TECH.9.4.2.TL.1	Identify the basic features of a digital tool and explain the purpose of the tool (e.g., 8.2.2.ED.1).
TECH.9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
TECH.9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
TECH.9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).