

# Unit 7 Rigamajig

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

## Unit Overview

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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

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CS.K-2.8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
CS.K-2.8.1.2.CS.2	Explain the functions of common software and hardware components of computing systems.
CS.K-2.8.1.2.CS.3	Describe basic hardware and software problems using accurate terminology.
CS.K-2.8.2.2.ED.1	Communicate the function of a product or device.
CS.K-2.8.2.2.ITH.1	Identify products that are designed to meet human wants or needs.
CS.K-2.8.2.2.ITH.2	Explain the purpose of a product and its value.

## Materials

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- Bullet Materials Here

## Assessment

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### Formative Assessment

- Teacher Observation
- Checks for Understanding
- Exit Tickets

### Summative Assessment

- Performance Tasks & Projects

## **Accommodations & Modifications**

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### **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**

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Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.

Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.

Developing and Using Models

Constructing Explanations and Designing Solutions

## **Career Readiness, Life Literacies & Key Skills**

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TECH.9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.9.4.2.CT.1	Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).
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.9.4.2.IML.4	Compare and contrast the way information is shared in a variety of contexts (e.g., social, academic, athletic) (e.g., 2.2.2.MSC.5, RL.2.9).