

# Unit 6 Kerbal - Space Flight

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

## Unit Overview

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Kerbal Space Program is an engineering platform that Galloway students use to design, construct, and fly virtual rockets. Students will first learn to navigate the interface, thus beginning their understanding of fundamentals of 3d design software. They will then be given a series of engineering tasks, such as constructing a rocket that can reach space. Students will use the design cycle to refine their rocket constructions, deciding collaboratively how best to achieve their engineering targets.

## 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.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.

## Materials

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- Laptops
- Kerbal Space Program

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

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TECH.9.4.2.Cl.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.Cl.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
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).