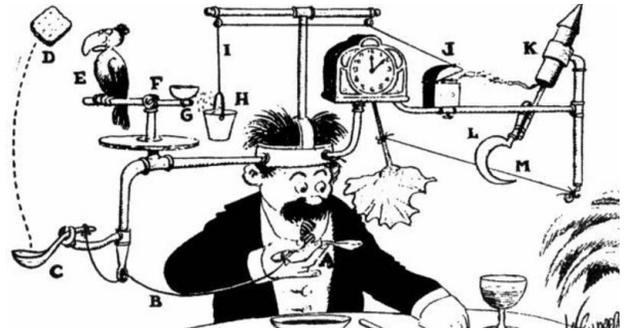


The Rube Goldberg Machine

Simple Machines Project

A Rube Goldberg Machine uses a series of simple machines in combination to perform a simple task such as popping a balloon, pouring cereal, or blowing out a candle.

Task: For this project, you will be working with a partner or on your own to create your own Rube Goldberg Machine that **uses 5 or more of the simple machines**. Once you have tested your project, you and your partner will need to **record your project using iMovie** to explain each of the simple machines used and how they will work. For project ideas, Pinterest or YouTube are great places to start to see what materials may be useful for each of the simple machines.



Simple Machines to be used:

Inclined Plane
Wedge

Wheel and Axle
Pulley

Screw
Lever

What is the purpose of your Rube Goldberg machine?

This project can be worked on at home, but you must include your partner, if you choose to have one, and needs to be brought to school for testing and filming.

Name _____

Date _____

Blueprint your plan below, the objects you will use, and the actions needed to make it happen:

A large, empty rounded rectangular box with a black border, intended for drawing or writing a blueprint. The box is centered on the page and occupies most of the lower half of the document.



Marking Page

Curricular Competencies	1	2	3	4
<p>Science</p> <ul style="list-style-type: none"> ○ Demonstrate a sustained curiosity about a scientific topic ○ Communicate ideas, explanations, and processes in a variety of ways ○ Understand the properties of simple machines and their force effects ○ Transfer and apply learning to new situations 	<ul style="list-style-type: none"> <input type="checkbox"/> Uses 3 or less simple machines to complete the task <input type="checkbox"/> May or may not have a working machine <input type="checkbox"/> Shows a limited understanding of what each simple machine does in the project 	<ul style="list-style-type: none"> <input type="checkbox"/> Correctly uses 4 or less simple machines to complete the task <input type="checkbox"/> Able to identify most of the simple machines used, but may make minor mistakes <input type="checkbox"/> Is able to explain how the simple machine is being used in the Rube Goldberg machine 	<ul style="list-style-type: none"> <input type="checkbox"/> Correctly uses 5 simple machines at least once to complete the task <input type="checkbox"/> Correctly identifies which simple machine was used in the process of the Rube Goldberg <input type="checkbox"/> Attempts to use scientific vocabulary in their description of the simple machines (e.g. fulcrum, effort force, etc.) 	<ul style="list-style-type: none"> <input type="checkbox"/> Uses all 6 machines in their Rube Goldberg Machines <input type="checkbox"/> May use different versions of the same simple machine to complete the task <input type="checkbox"/> Correctly and consistently uses scientific vocabulary in their description of the process
<p>ADST</p> <ul style="list-style-type: none"> ○ Construct a first version of the product, making changes to tools, materials, and procedures as needed ○ Testing the product ○ Constructing the final product ○ Demonstrating the product and describing the process 	<ul style="list-style-type: none"> <input type="checkbox"/> Rube Goldberg Machine is incomplete or does not complete the task <input type="checkbox"/> Simple materials were used <input type="checkbox"/> May or may not have a purpose in mind 	<ul style="list-style-type: none"> <input type="checkbox"/> Creates a Rube Goldberg machine that works, but has some glitches along the way <input type="checkbox"/> Uses basic materials and tools to create the task <input type="checkbox"/> Some repeat machines are used, but does not interfere with the task 	<ul style="list-style-type: none"> <input type="checkbox"/> Creates a working Rube Goldberg machine with a purpose using 5 different simple machines after a series of testing and changing of ideas <input type="checkbox"/> Uses a variety of materials to complete the task <input type="checkbox"/> Some originality was shown in your task idea 	<ul style="list-style-type: none"> <input type="checkbox"/> Creates a working Rube Goldberg machine is 6 different simple machines <input type="checkbox"/> Completes a complex task that may require unlikely tools or materials <input type="checkbox"/> Uses a series of unique chain reactions that may extend the length of the machine <input type="checkbox"/> Different simple machines are labelled on your model
<p>L.A. – Presentation</p> <ul style="list-style-type: none"> ○ Exchange ideas and perspectives to build shared understanding 	<ul style="list-style-type: none"> <input type="checkbox"/> Voice is difficult to understand (quiet, mumbling, etc.) <input type="checkbox"/> Little preparation was made <input type="checkbox"/> Camera is shaky and difficult to follow 	<ul style="list-style-type: none"> <input type="checkbox"/> Voice is clear, and relatively easy to understand <input type="checkbox"/> Explanation is mostly clear <input type="checkbox"/> Camera is mostly steady and follows the machine well 	<ul style="list-style-type: none"> <input type="checkbox"/> Voice is loud, clear, and easy to understand <input type="checkbox"/> Presentation is engaging and spoken with enthusiasm <input type="checkbox"/> Camera is steady and easy to follow 	<ul style="list-style-type: none"> <input type="checkbox"/> Eye contact is made with the camera during your explanation <input type="checkbox"/> Title Screen, transition, and music was added.

Final Grade:

Powerful Performance Mark (Effort