

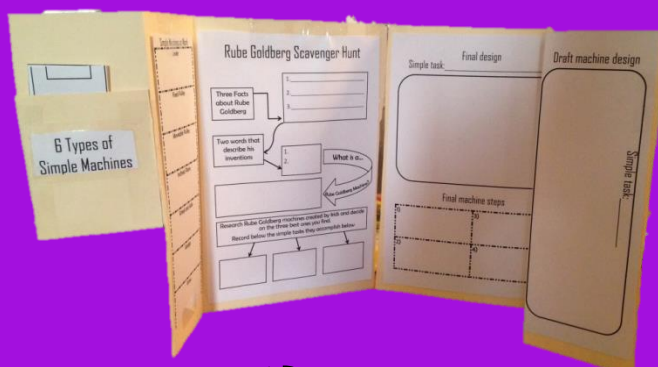
Rube Goldberg :

A SIMPLE

MACHINES



Learning activity



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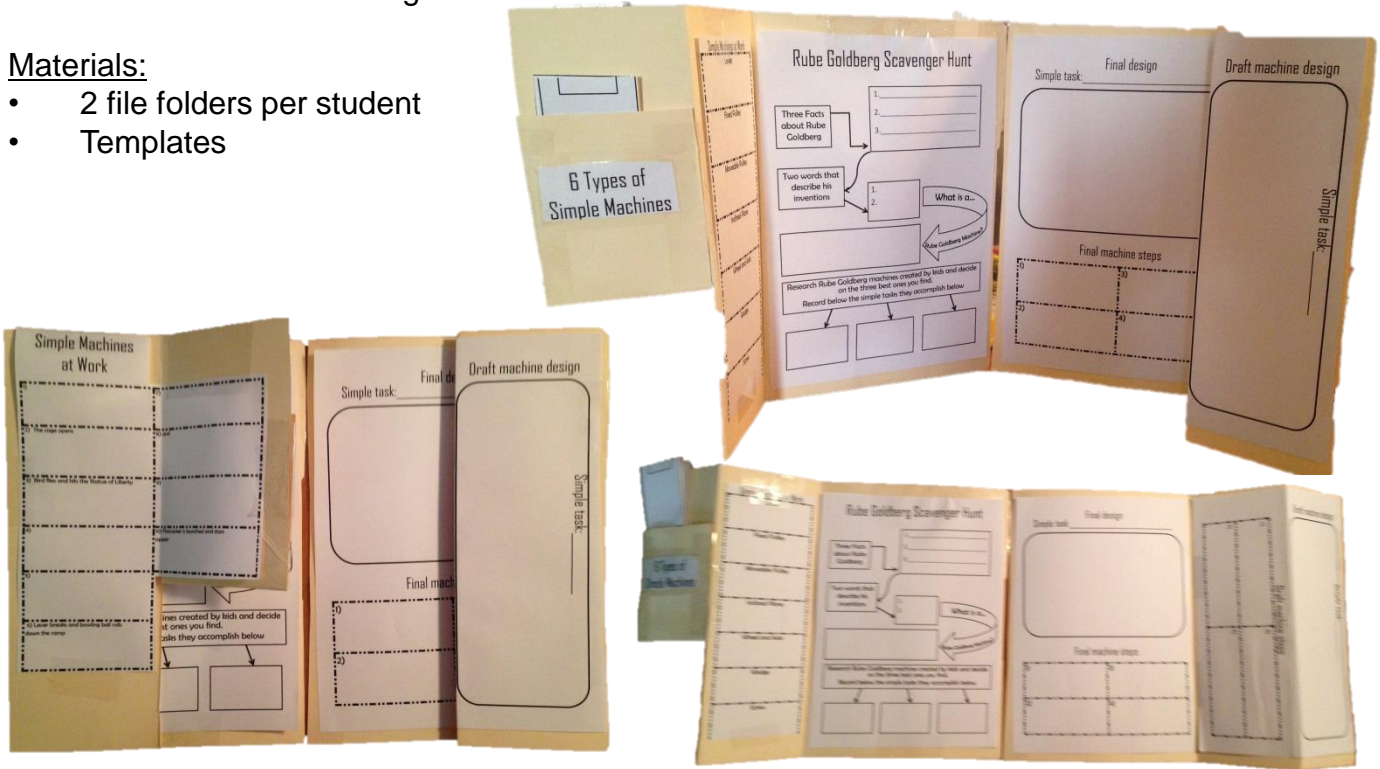


Instructions for making the Rube Goldberg Machine Foldable

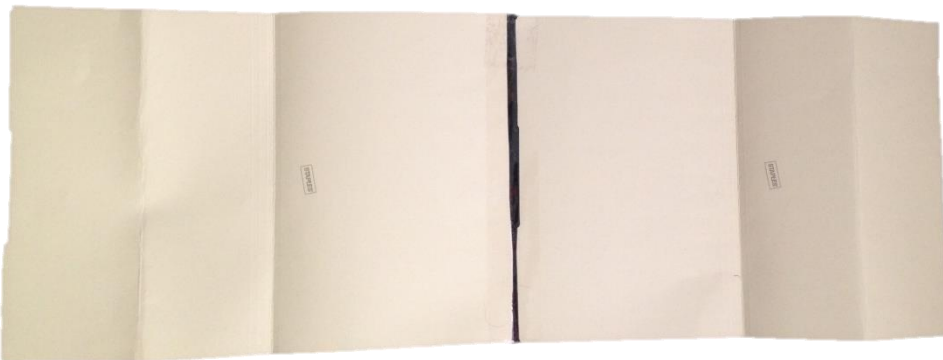
Project Description: This foldable has a never ending supply of places for students to store all of their research and thinking!

Materials:

- 2 file folders per student
- Templates



Step 1 & 2



Trim both file folders to remove the tabs. Open then up and tape the two together. Be sure to leave a small gap between the file folders so that they are easy to fold.

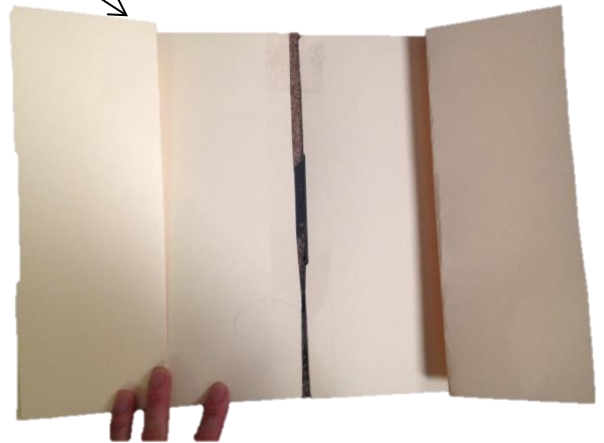
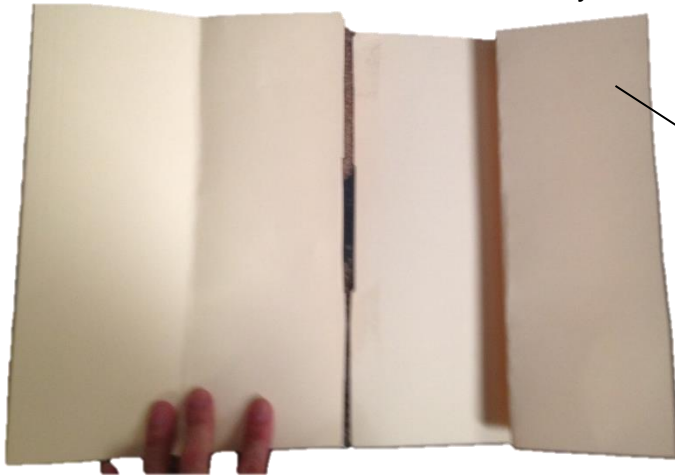


Instructions for making the Rube Goldberg Machine Foldable

Step 3 & 4

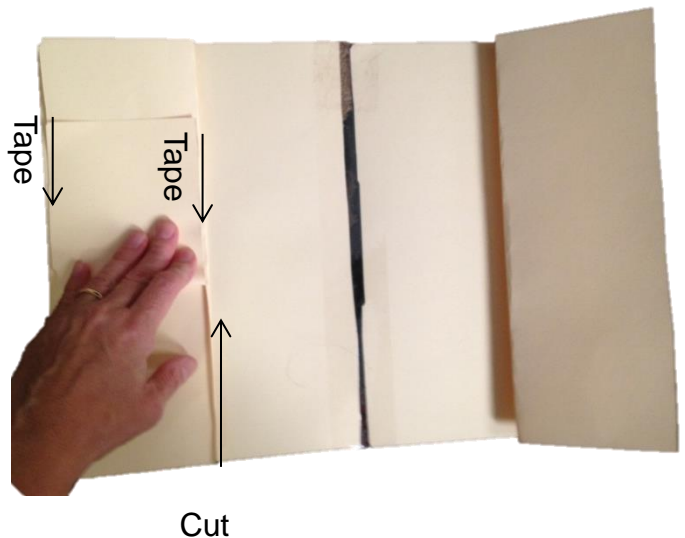
Fold both file folders closed

Then bend back the top of both file folders about half way.



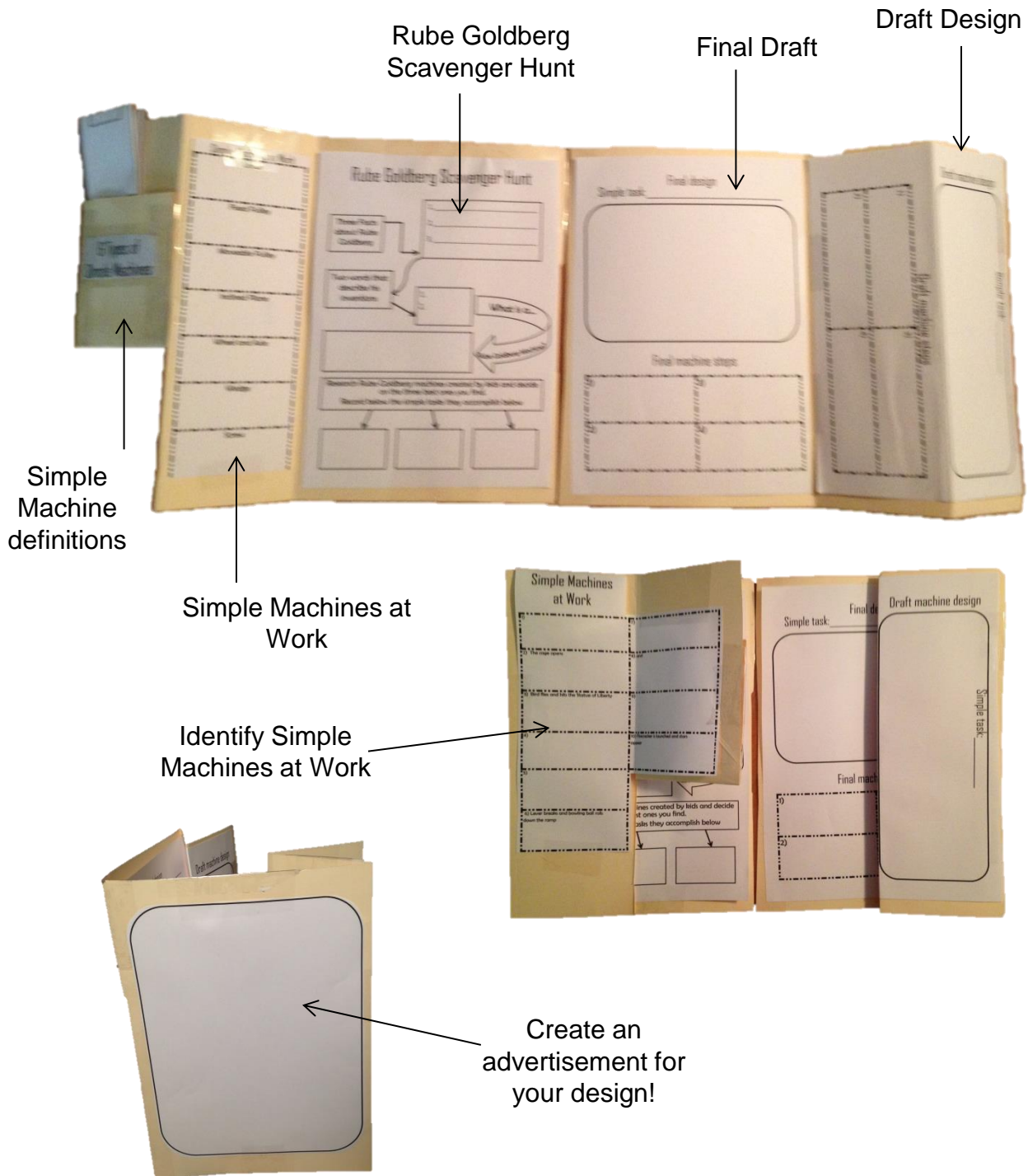
Step 5 & 6

To make the pocket, cut upward about 1/3 up the thin side of the folder and tape both sides to form the pocket.





Instructions for making the Rube Goldberg Machine Foldable



Rube Goldberg Machine Student

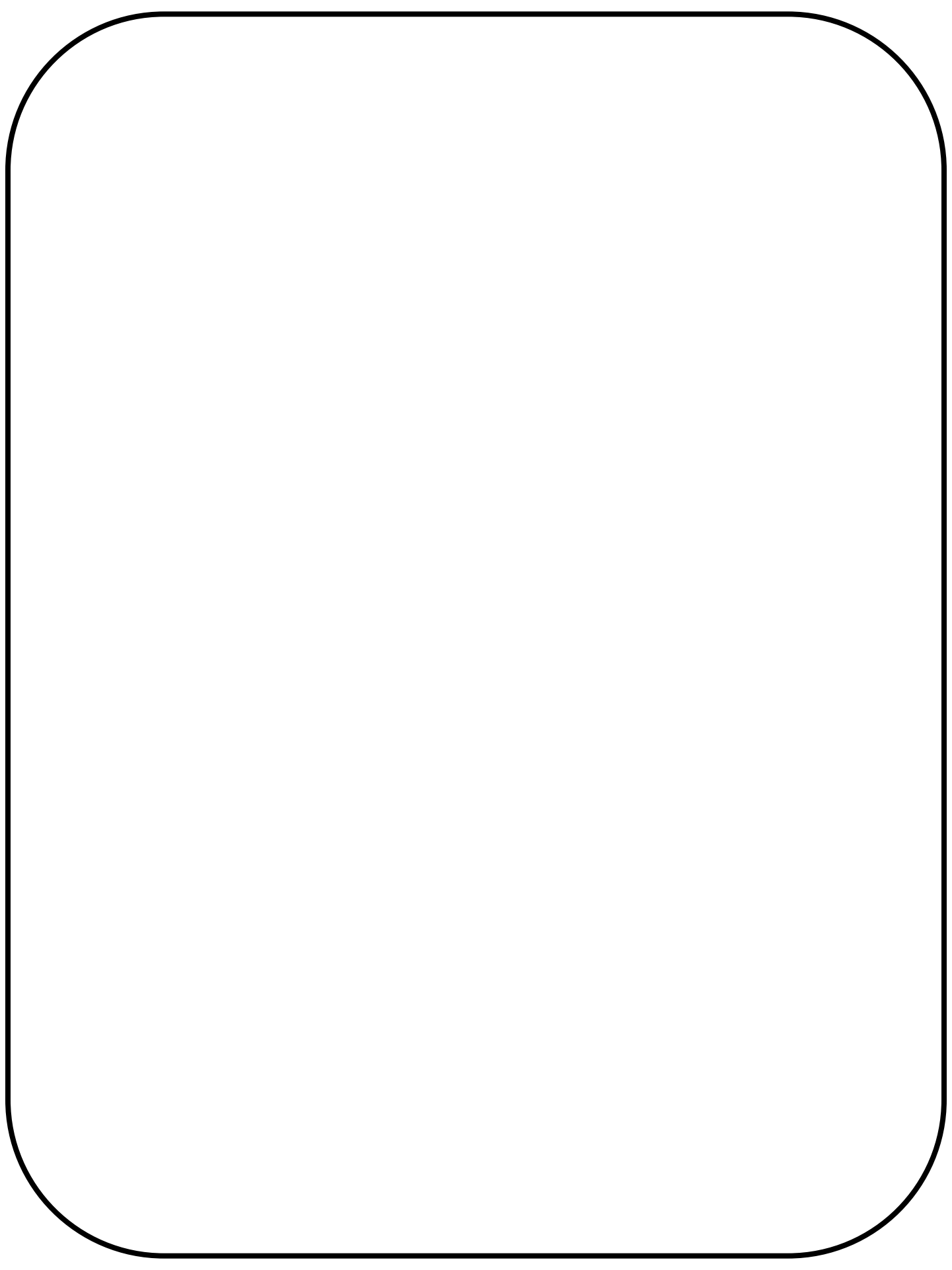
Directions

Who was Rube Goldberg?

Rube Goldberg was an inventor, cartoonist, sculptor, author, and engineer who believed that people preferred the hard way to do things. He gained notoriety by illustrating cartoons featuring complicated inventions that accomplished a simple task.

What steps will you take to accomplish this project?

- ☐ Complete the SCAVENGER HUNT on Rube Goldberg and his creative ideas using the following useful websites and any others you find:
 - ☐ <http://www.rubegoldberg.com/>
 - ☐ <http://mousetrapcontraptions.com/history-4.html>
 - ☐ <http://wonderopolis.org/wonder/what-is-a-rube-goldberg-machine/>
- ☐ IDENTIFY, ILLUSTRATE, LABEL and DESCRIBE how the most common 6 simple machines work
- ☐ CATEGORIZE the simple machines used in the 2010 Google Doodle that celebrated the birthdate of Rube Goldberg
- ☐ EXPLAIN the steps that occur in the Google Doodle leading up to the simple task of lighting a firecracker.
- ☐ DESIGN a digital Rube Goldberg Machine using one of the following websites:
 - ☐ <http://pbskids.org/zoom/games/goldburgertogo/>
 - ☐ <http://archive.fossweb.com/modules3-6/LeversandPulleys/activities/rubegoldbergmachine.html>
- ☐ SKETCH a draft of a possible Rube Goldberg machine that accomplishes a simple task
- ☐ DESCRIBE and EXPLAIN the steps you plan for it to accomplish
- ☐ BUILD and TEST your Rube Goldberg machine
- ☐ DRAW and ILLUSTRATE your final design and EXPLAIN how it works. Split the steps into halves using diagonal lines if necessary to create more than 4 steps.



Rube Goldberg Scavenger Hunt

Three Facts
about Rube
Goldberg

1. _____
2. _____
3. _____

Two words that
describe his
inventions

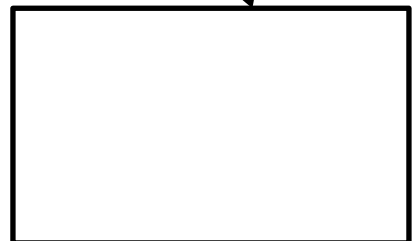
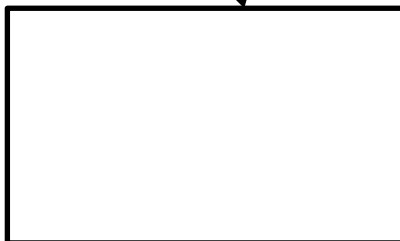
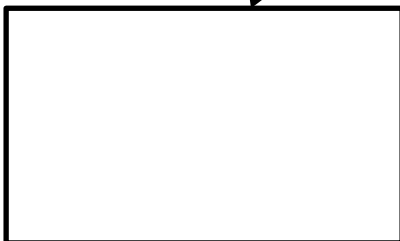
- 1.
- 2.

What is a...

Rube Goldberg Machine?

Research Rube Goldberg machines created by kids and decide
on the three best ones you find.

Record below the simple tasks they accomplish below



6 Types of Simple Machines

[illegible][illegible]

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Simple Machines at Work

Lever

Fixed Pulley

Moveable Pulley

Inclined Plane

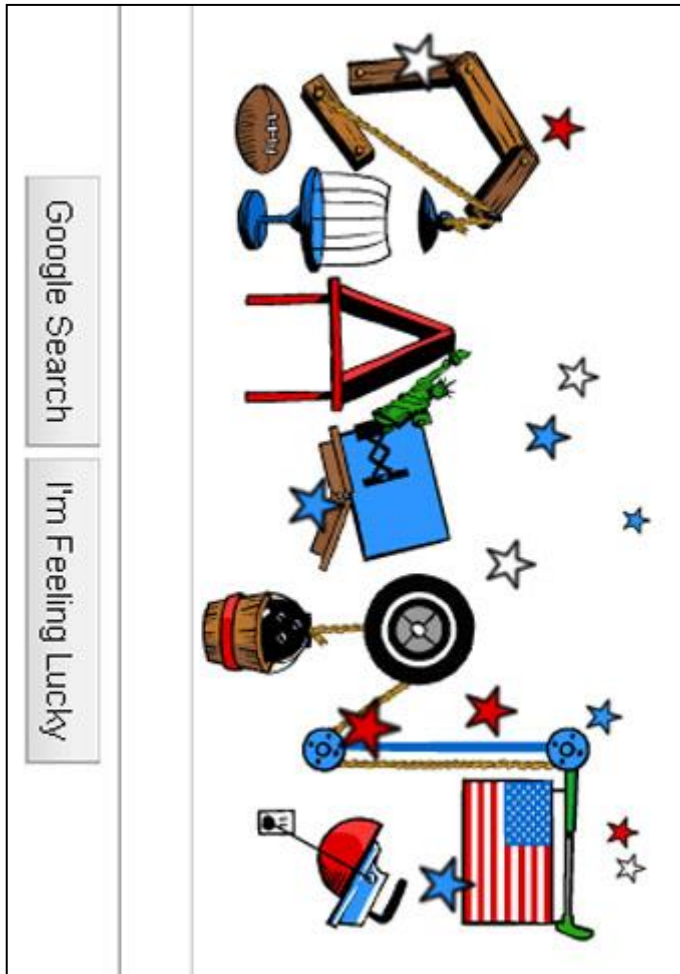
Wheel and Axle

Wedge

Screw

<http://tinyurl.com/rubegoogle doodle>

List the objects being used as simple machines in the Google Doodle from Rube Goldberg's birthday in 2010.
(use link above or picture below)



Simple Machines at Work

<http://tinyurl.com/rubeanimateddoodle>

List the STEPS that occur in the animated Google Doodle in the table below:

1)	7)
2) The cage opens	8) and
3) Bird flies and hits the Statue of Liberty	9)
4)	10) Firecracker is launched and stars appear
5)	
6) Lever breaks and bowling ball rolls down the ramp	

Draft machine design

Simple task: _____

Draft machine steps

1)

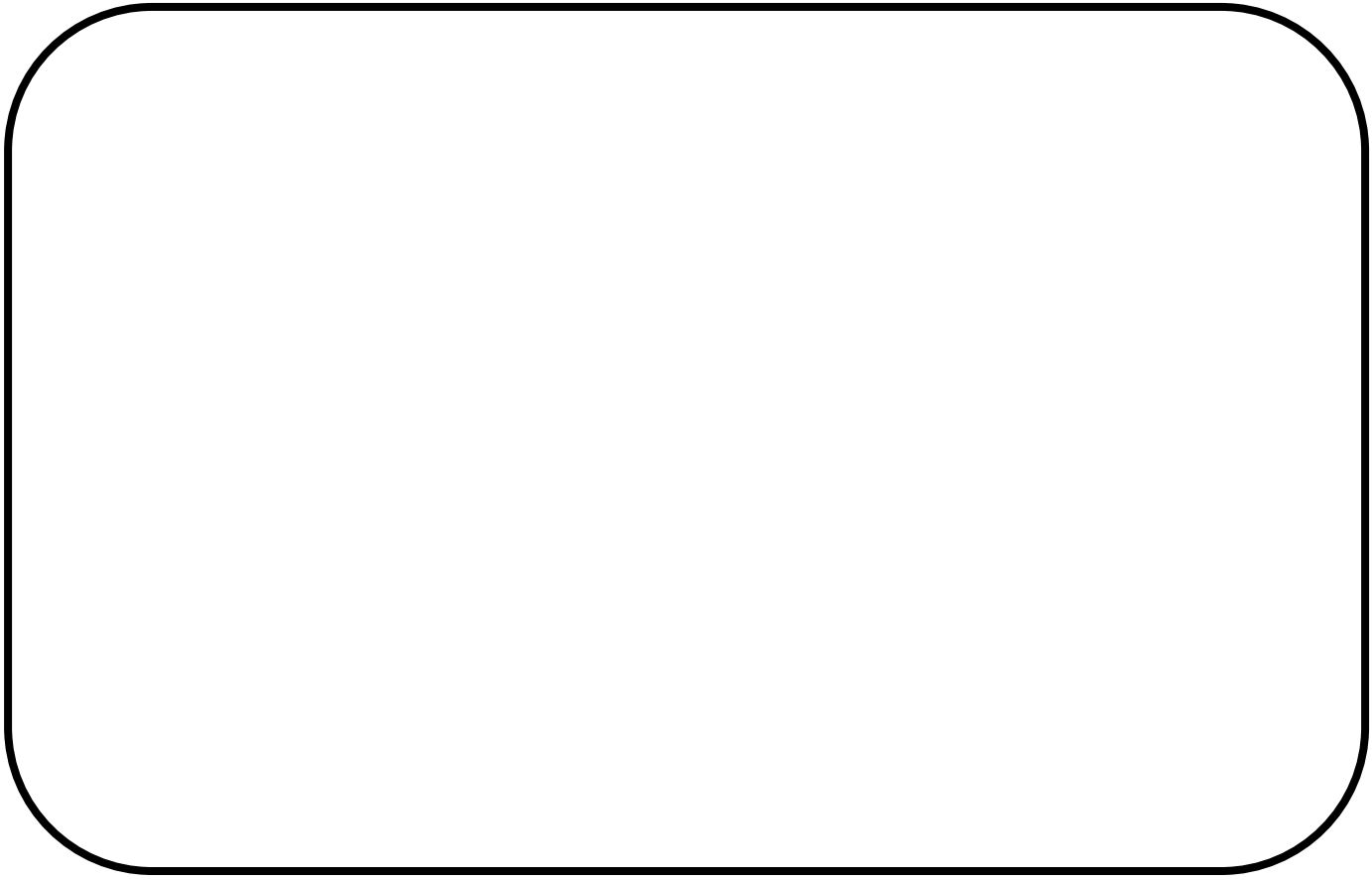
2)

3)

4)

Final design

Simple task: _____



Final machine steps

1)	3)
2)	4)