



Student's Name: _____

Date: _____

Challenge: Rube Goldberg Machine

Ask: What is the problem?

Can you create a Rube Goldberg Machine that will roll a marble into a cup?

Requirements:

- You must include at least two different types of simple machines.
- You must include at least four chain reactions in your design.

Constraints:

- You may only use the materials provided by your teacher.
- You must complete your design in the time frame provided.

Imagine: What do you know about Rube Goldberg Machines?

Research and brainstorm possible strategies for creating a Rube Goldberg Machine.

Jot new learning below:

Materials: Choose up to 8 of the materials below. Circle your choices.

10 straws

10 popsicle sticks

10 Legos

1 ft. yarn

10 dominos

4 pipe cleaners

2 magnets

10 paper clips

1 ft. aluminum foil

1 cereal box

3 paper towel rolls

Hot Wheels car

5 wooden blocks

4 lids

cup (required)

marble (required)

Your Plan: Draw a diagram of your machine. Remember to label. Use a separate sheet of paper if necessary.

Share your plan with your group. Listen to your teammates share their plans. Combine your thinking and draw your team's plan below.

Group's Plan: Draw a diagram of your team's solution. Remember to label.

...CREATE...

Revise: What revisions did you make along the way?

Present and Reflect: Did your design work? What would you do differently next time? What did you learn?

S.T.E.A.M Rubric

Student's Name: _____

Group Member's Names: _____

Grading Scale:

4: Exceeded Expectations- Way to Go!!!

3: Meets Expectations- On Target- Good Job!

2: Making Progress- Room for improvement, but you put forth some effort.

1: Needs a lot of improvement-See Teacher

	Self Assessment	Teacher's Assessment
Worked well with group members- You stated your opinion and listened to other's opinions		
Developed a <u>collaborative</u> plan with your group and revised your plan as needed		
Stayed on task		
Persevered to overcome challenges and frustrations		
Completed STEAM challenge and documented your thinking (made a plan, collected data, and reflected on the challenge)		
Cleaned up work area and put away materials in the correct location		
Overall Grade: What grade would you give yourself for this challenge? 4-3-2-1?		
Student Reflection:		