Rube Goldberg Project – 4B

Hosted by Mrs. Shari Cossette (scossette@bearspawschool.com)

Your group will be responsible for building a
Rube Goldberg Machine to **Pop a Balloon!**

Your Balloon Popper Machine must include each of the following simple machines and project requirements:

_____ Incline/decline plane
_____ Pulley
_____ Gears
_____ Wedge
_____ Wheel and axle
_____ Lever
_____ Pop A Balloon

The more unique and complex you can make your machine the better!

Group #_____

Group Members:

_____

Due Date: Tuesday, June 2, 2015

How to Guide

Step 1: Students will pick their own groups- no more than 3 people. Students can choose to do this project on their own.

Step 2: The students will create an invention that will include the an example of *each* of the six simple machine classes that we have been discussing in class for the past week.

Step 3: Creating the invention. (Numerous trials, brainstorm and problem solving will be involved.)

Step 4: Creating a video of your invention popping the balloon**.**

Step 5: Fill in the assignment sheet with the Number of trials, brainstorm and problem solving that were involved.

TEN COMMANDMENTS OF RUBE GOLDBERG MACHINES:

1. No more than 3 people in a group.
2. **Your R.G. machine must pop the balloon.**
3. Your machine must work independently and ***can only be touched once to start your machine***.
4. Complete a drawing plan (one must be submitted by all members of the group)
5. Videotape your machine and send it by email or put on a USB stick for the class to watch. (1 video)
6. *Adult involvement is limited to the following: Assist in organizing a time to get the group together, helping the students get their supplies, assist with videotaping their experiment*
7. Complete the booklet either online or on print (one must be submitted by all members of the group).
8. You will be expected to do a Self and Peer evaluation at the end of your project.
9. Project must be submitted by Tuesday, June 2. If not you will be charged $200 for each day that it is late.
10. Have fun and be a good partner or group member.

PLAN - Draw an outline of the machine

Tally of how many trials the experiment took:

Tally:	Total:

Student Reflection

Summarize in details of your experiment. Make sure that you include the following:

- **how did your machine work?**
- **how many trials did it take?**
- **did your initial plan look the same as your finished project explain why or why not?**
- **what worked well?**
- **what did not work well?**

(minimum of 5 sentences)

1. Which simple machines (Incline/decline plane, Pulley, Gears, Wedge, Wheel and axle, Lever) was the hardest to include in your machine? Why? (minimum 2 sentences)

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2. Which rule did you think made the project the hardest or most interesting? Why? (minimum 2 sentences)

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4. Did your rough copy diagram help you with your building? Why or why not? (minimum 2 sentences)

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5. Which item did you find the most useful? Why?
(minimum 1 sentences)

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7. How could you have been a better partner (2 ideas and sentences).

_____

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8. How could your partner have been a better partner (2 ideas and sentences). (minimum 2 sentences)

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9. 2 STARS and a WISH. Below tell me your two favourite parts of the project and one wish. A wish could be something you would do differently or improve on next time). (minimum 3 sentences)

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10. What are at least 1-2 things you would suggest to make the project better for students in future years? (Minimum two sentences).

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