The Rube Goldberg Project: History Requirements

Pancil Sharpener   RUBE GOLDBERG (tm) RGI 038
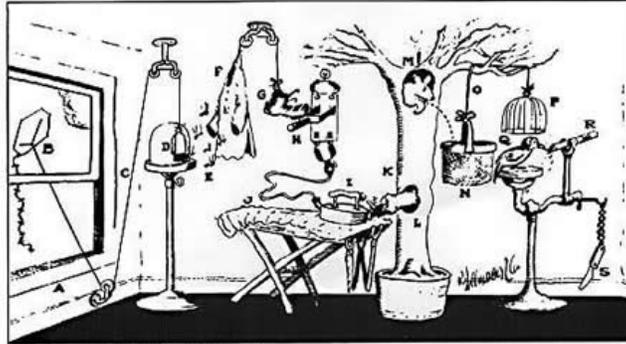
Part I: Partners, Topic, Timeline

STEP 1: **Choose Your Partners.** Wisely. This is a project that is built primarily at home. You may want to think about proximity, availability, relationship dynamics, etc. Groups may have no more than 4 members! NO EXCEPTIONS!

STEP 2: **Topics:** Choose at least three different **TOPICS** from U.S. history between the years (1620-1900). One of these will be your history topic for the Rube Goldberg machine. Your topics **must correlate with** *8th grade U.S. History curriculum and standards.* The topics you choose must have a logical sequence of events so that it can be plotted on a timeline and decorated on your machine. A good resource for finding topics is your U.S. History textbook!

STEP 3: **Request your (TOP THREE) Topics…** with your chosen group members in Ms. Cimino's room. There will be a request sheet and "Rube Goldberg" box. The request sheet will require ALL your group members' names and the 1st, 2nd, and 3rd choices for your topic. No more than two groups may do the same topic! Requests will be randomly drawn and all groups and final topics will be posted.

STEP 4: **Complete a Group Timeline:** Once you have been assigned a topic *each group* will need to research complete a **Timeline.** A timeline is a series of events (or steps) in chronological order. The purpose of the Timeline is to help you understand the sequence of events of your topic and to visualize HOW you can plot those events on your Rube Goldberg machine. You will need a minimum of 10-15 events. You may have more. Be sure to choose events in which "motion" can be easily incorporated. This is the KEY ELEMENT of the project. You are "telling the story" of your history topic through the transfers of energy on the machine. Think creatively.
The timeline must be typed and turned in by the assigned due date. (50 points, per person)

Part II: Research, and Decoration Ideas

STEP 5: **Research Worksheet:** *EACH GROUP MEMBER* will research each event on the group Timeline using textbook and Internet sources. For each event/step, your research should demonstrate extensive historical understanding of the topic and be a minimum of one paragraph. In addition, you will need to cite your sources in a BIBLIOGRAPHY. Create your own Bibliography/Works Cited page to attach to your Research Worksheet. Please remember, your machine should have a minimum of 10-15 historical events/steps. *The Research Worksheet must be typed and turned in by the assigned due date*.   (50 points, per person)

STEP 6: Pieces and Decoration Worksheet: *EACH GROUP MEMBER* will complete a Pieces and Decoration Worksheet by visualizing/ brainstorming which Rube Goldberg pieces BEST help demonstrate each event on the TIMELINE through the use of motion. (i.e. tetherball, pendulum, pulley, dominos, etc.). In addition, *the entire machine, including each transfer of energy, must be decorated in a way that reflects the topic and tells the story.* How will you decorate each transfer of energy to reflect the historical topic and help tell the story??? (50 points)

STEP 7: Build & Decorate your Machine so that your transfers of energy accurately (and cleverly!) tell the story of the period of history your group has selected. Make sure you **decorate** the entire machine with emphasis on each of the transfers of energy. For example, if your group is doing the Revolutionary period and one of your key events is the Sugar Act, you could use sugar cubes or packets of sugar or a jar of sugar to have it thematically relate to the event. Innovation and decoration is what makes people in awe of your project. The public will judge your final machine during your presentation at Open House.

Part III: Report, Display Board, Machine Presentation @ Open House

***** *YOUR REPORT & DISPLAY BOARD MUST BE HANDED IN ON THE DAY YOUR MACHINE IS BROUGHT TO SCHOOL. NO REPORT = NO GRADE. PLEASE TURN REPORTS & COMPLETED DISPLAY BOARDS IN AT THE BEGINNING OF THE SCHOOL DAY… IN THE "RUBE GOLDBERG BASKET" IN MY ROOM*

STEP 8: Write up your Report: Your report should have an introduction, a body, and a conclusion.

The **introduction** should briefly explain the historical topic and why it is significant.

The **body** of your report should *explain how your machine used each transfer of energy and decorations to tell the story of your historical topic.* Use **BOLD TYPE** to highlight each event/transfer of energy in your report.

   For example: *"EVENT ONE are the Battles of Lexington and Concord. These were the first major battles in the Revolutionary War. After a spy told British General Gage that colonists were hiding a large supply of gunpowder and weapons in the nearby village of Concord, the General ordered British troops to march to Concord and seize the weapons. However, Patriot spies spread the news throughout the Massachusetts countryside and a group of Patriot farmers turned soldiers called 'Minutemen' lay in wait. We chose to show this event by using a fan that moves a marble. The fan represents General Gage hearing the news about the storehouse of gunpowder. The marble represents the mobilization of the British troops marching out to the countryside. As the marble moves down a ramp, which is decorated with trees and grass to represent the rural Massachusetts countryside, it is flanked with toy soldiers laying in wait. These toy soldiers represent the minutemen, American militia men who volunteered to be ready for service at a minute's notice."*

   Finally, **conclude** your report with a description of the various materials you used to build your machine. (Report = 100 points)

Requirements: *All reports must be 12-point font (New Times Roman, Courier New, or American Typewriter), spell-checked, double spaced, and include a COVER PAGE. The cover page should include the name of the Project (i.e. Rube Goldberg), the theme (i.e. Industrial Inventions), and the names of all members of your group.*

STEP 9: **The Display Board:** A tri-fold display board is what showcases the four content areas. There should be a part dedicated to each of the four content areas: History, Science, Math, and English. For the History portion, create your timeline in the center of your **display board**. This should be between 10-15 events with a year (where applicable), a picture, and ***a brief caption***. In addition to each picture or drawing of the historical "event" you should also have a picture of the Rube Goldberg "piece" you used to showcase that event. For example, if you used "Dominos" to show "soldiers falling in a battle" an image of the 'dominos' should be showcased along side image of the soldiers. Make it look beautiful! Be creative! It should be neat and easy to understand. Thematic images (photos, paintings, primary text, etc.) should be incorporated for each event. You may draw images or print pictures from online. This should be artistic and visually appealing. Please give yourself time to do this at home. Assembling this on the day the project is due is too late. (100 points)

Grand Finale

STEP 10: Presentation: On the evening of Open House ALL THE MEMBERS OF YOUR GROUP will present your project. You will be given a presentation rubric prior to Open House. You will need two members of the public to evaluate your Presentation. You will be evaluated on the following criteria: Content Knowledge, Clarity, Machine Decoration, Organization/Preparation, Team Effort. (100 points)

Part I: Is worth 150 points per individual *(Timeline, Research, Decoration Worksheets)*
Part II: Is worth 300 points per group *(Report, Display Board, Presentation)*

*** *Every person in the group should contribute to each part of the project.*
*** *50 EXTRA-CREDIT POINTS FOR ANY GROUP THAT GIVES ME A FILM OF YOUR PROJECT (see me for details!)*