

DESIGN AN INVENTION LIKE RUBE

SUMMARY OF ACTIVITY:

Activity Description: Kids will learn about Rube Goldberg machines and how they work, then put their drawing skills to the test to design a Rube Goldberg-style machine of their own! This activity is designed as a warm-up creative activity to get participants thinking about how objects interact with each other to form Rube Goldberg machines.

STEAM Skills: Engineering, Rube Goldberg machines - art, drawing

Ideal Age Group: All ages (worksheet aid for younger ages)

Groups: Individual

Length: open ended, 15-30

MATERIALS AND SUPPLIES:

<ul style="list-style-type: none">● Rube Goldberg Machine Interacting Objects Worksheet	<ul style="list-style-type: none">● Printer Paper
<ul style="list-style-type: none">● Coloured pencils/markers	<ul style="list-style-type: none">●

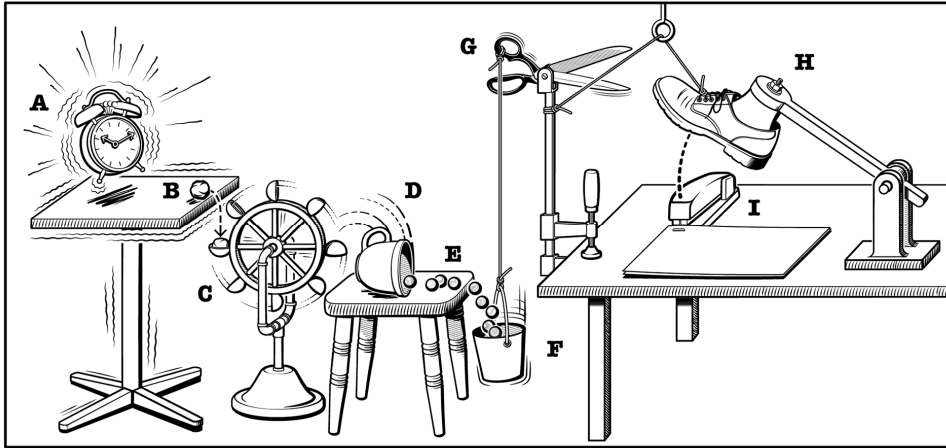
TALKING POINTS AND BACKGROUND:

- A Rube Goldberg machine is a contraption that uses a chain reaction to carry out a simple task. It performs a very basic job in a complicated way.
- Let's take a look at this music video made by an American rock band. The entire music video shows a Rube Goldberg Machine in action! What kinds of things do you notice in the video? What's used in the Rube Goldberg Machine? What was the machine made to do? What seemed to work well? What didn't seem to work well?
- Music Video: <https://www.youtube.com/watch?v=qybUFnY7Y8w>

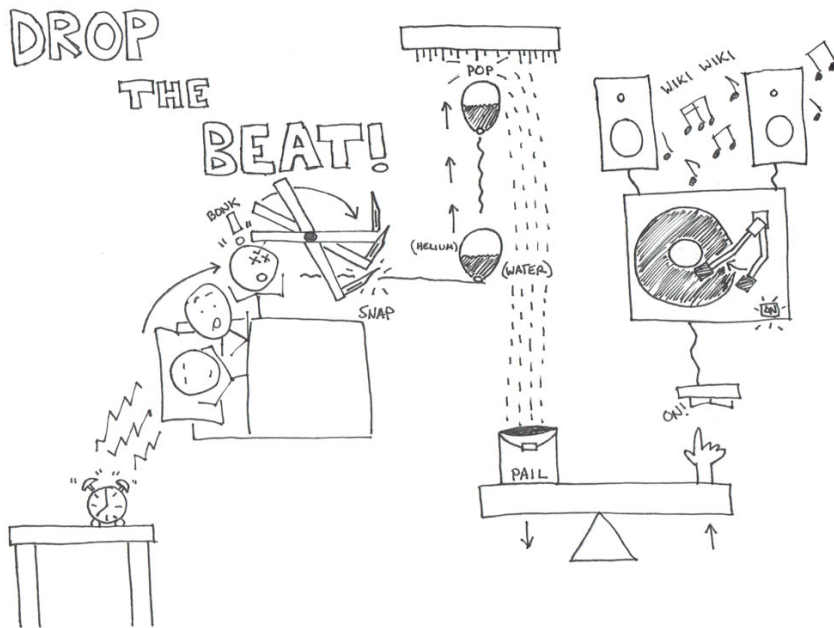
PROCEDURE:

1. Instruct participants to use the interacting objects worksheet to choose some components they want to include in their machines.

2. Encourage them to add their own ideas as well!
3. Have them draw on paper what they imagine their machine to look like. Emphasize how Rube Goldberg machines consist of many components that all interact with one another to form a cohesive machine that performs a task. Remind them that one object should cause a change in the other (chain reaction)!
4. You can use some of the Rube Goldberg machine youtube videos as examples for inspiration, and also the pages of the storybook.



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TIPS AND TRICKS:

- Younger kids can use the interacting objects worksheet to help them choose components for their design. Older participants could do this activity for brainstorming, creating more complex designs.

REFERENCES OR OTHER LINKS:

Rube Goldberg Videos:

- [The Swish Machine: 70 Step Basketball Trickshot \(Rube Goldberg Machine\) - YouTube](#)
- [The Cake Server | Joseph's Most Complex Machine Ever? - YouTube](#)
- [OK Go - This Too Shall Pass - Rube Goldberg Machine - Official Video - YouTube](#)
- [Which Door Will The Ball Hit? | Joseph's Puzzle Machines - YouTube](#)

[75 Rube Goldberg Ideas & Inventions - YouTube](#)

Image credits:

<https://www.boomboxpost.com/blog/2016/4/22/rube-goldberg-devices>

https://www.vernier.com/experiment/pep-16_rube-goldberg-machine/