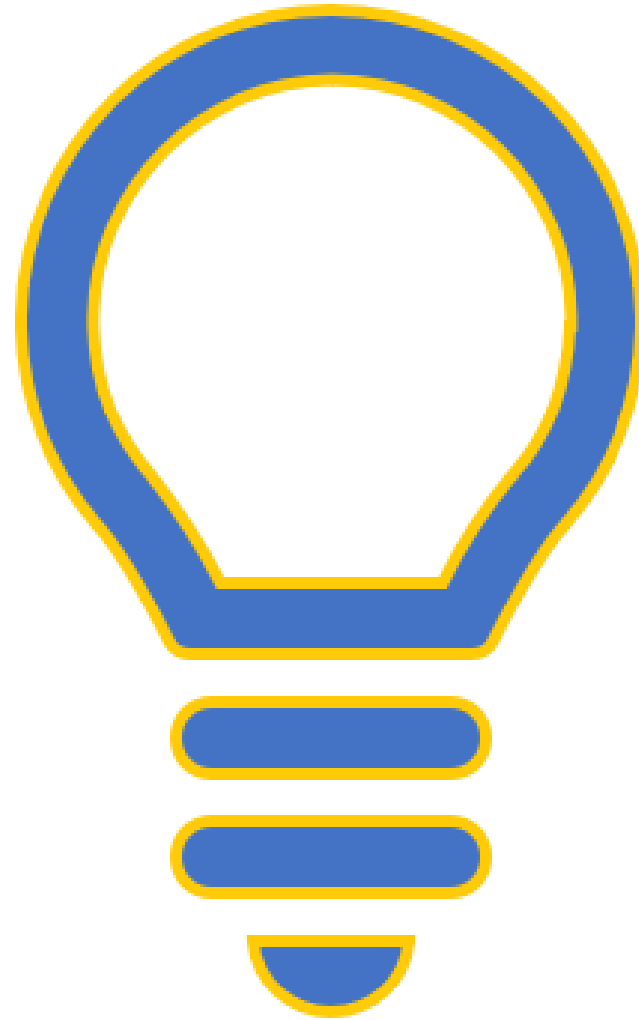


# Invention Breeds Invention— Knowledge

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Unit 4 Lesson 5



# Standards & Objectives

- **Reading** – I can describe the chronology, causes, and effects of the Louis Braille’s invention, in order to understand that “invention breeds invention.” [RI.4.5]
- – I can read technical texts and interpret diagrams about simple machines. [RI.4.3]
- **Writing** – I can integrate information about prior inventions and simple machines to write a creative solution to a technical challenge. [W.4.4]



# Welcome to Eureka!

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**A Note from Hedy Lamarr:**

Invention breeds invention! Zat is the use of knowledge. Ze inventions you know can lead to ze inventions you create. Vat does zat mean? It means zat ze rely on the work of ze inventors who came before us! I am an outstanding example of invention breeding invention: you know zat I invented ze spread-spectrum technology? In order to do zat, I used technology zat had already been developed for ze first remote controls for radios, and also ze technology of player pianos—pianos zat play zemselves! True fact! Many years later, technology from my invention vas used to invent cell phones, Wi-Fi, GPS—all sorts of vireless communication! I got an Electronic Pioneer Award in 1995 ven someone finally noticed zis! I am only a little bitter zat by zen I vas too old to travel to accept it.

You see, my invention led to other inventions. Invention breeds invention!

Sincerely,

*Hedy Lamarr*



# Invention breeds invention

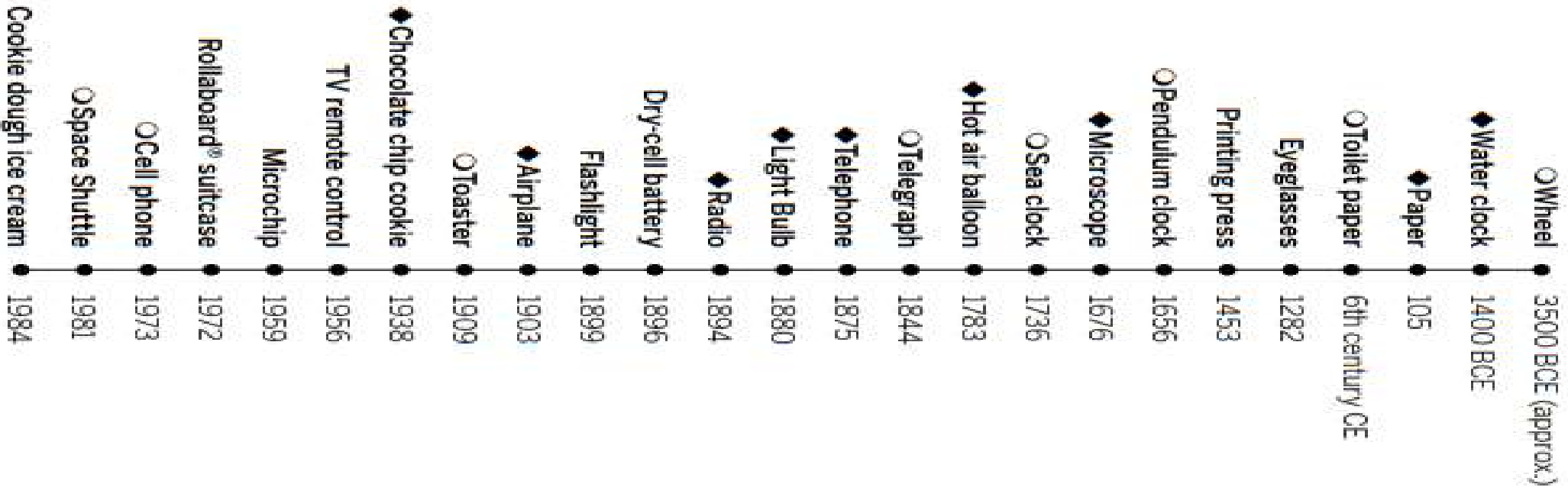
We use inventions to make other inventions.

Some inventions are improvements on old inventions.

We rely on earlier inventions within new ones.

Some inventions create new needs, which in turn generate new inventions.

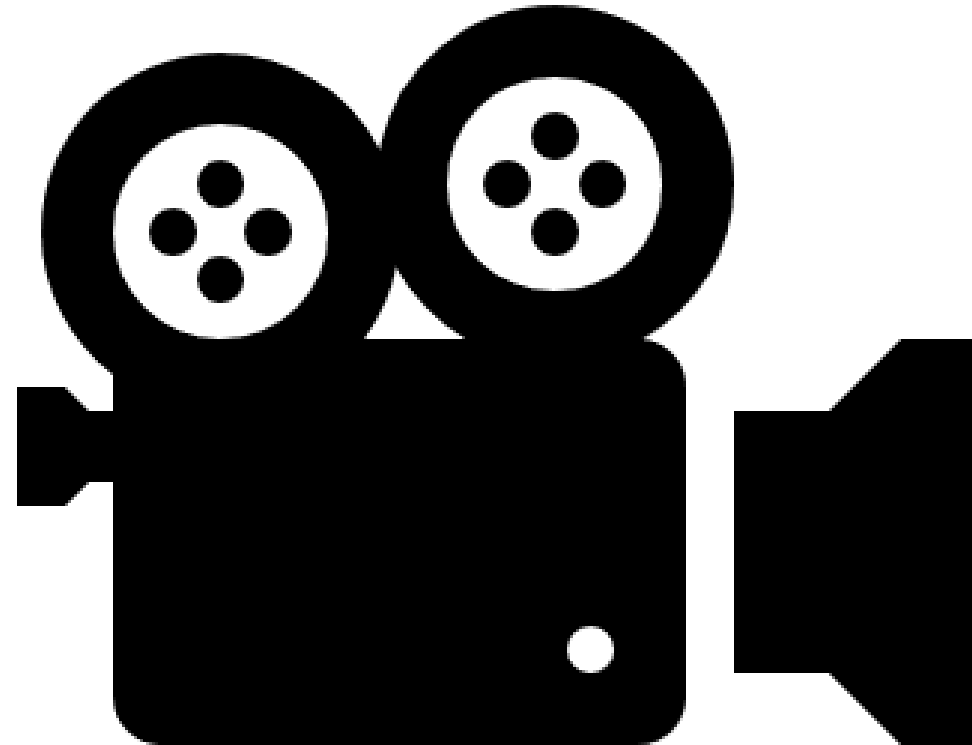
# TIMELINE OF INVENTION





# **SIMPLE MACHINES**

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# ACADEMIC VOCABULARY

- **baboon**, n. a kind of monkey
- **bigwigs**, n. important people
- **cylinder**, n. an object with identical flat ends and a circular or oval section
- **humble**, adj. not significant; modest
- **manure**, n. a substance made from animal poop that is spread on plants to help them grow



# ACADEMIC VOCABULARY

- **primates**, n. a category of mammals that includes humans, monkeys, and apes
- **producers**, n. people who supervise a television production
- **revolutionary**, adj. bringing about major change
- **simians**, n. monkeys
- **Stone Age**, n. a period in the history of mankind marked by the use of tools and weapons made of stone
- **upshot**, n. result



## SIMPLE MACHINE DANCE PARTY CHALLENGE

Simple Machine: \_\_\_\_\_

1. List an invention from the article that uses this simple machine:

\_\_\_\_\_

2. List another invention, not in the article, that uses this simple machine:

\_\_\_\_\_

3. Find three descriptions of action or movement from the article that refer to the simple machine:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. In your own words, simply describe how this simple machine works:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Now, with your group, prepare a short dance or movement that demonstrates how this simple machine works.

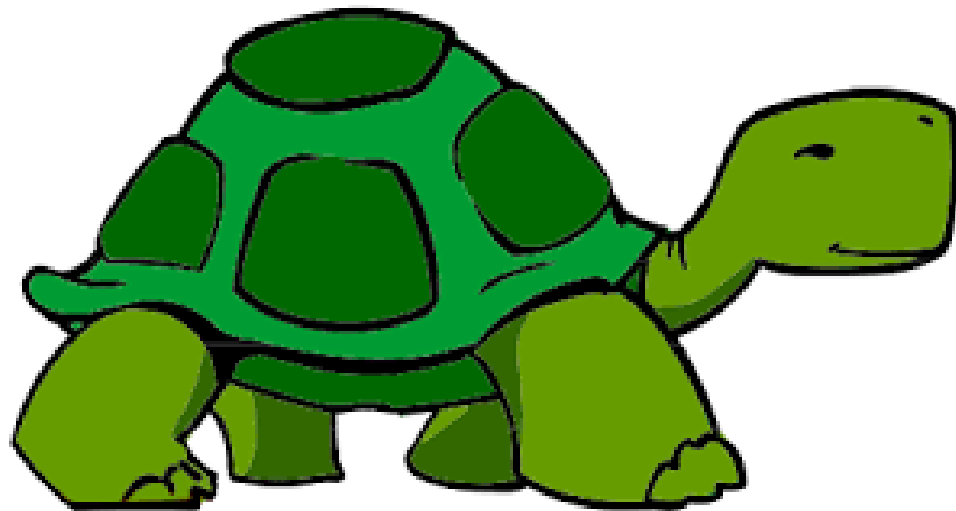
- ☐ Your dance must last 30 seconds.
- ☐ All members of your lab must participate!
- ☐ You can all do the same movement, or you can do different movements.
- ☐ Feel free to create musical or rhythmic accompaniment.



**Simple Machines**

**DANCE PARTY**

## Mi-Shell



### KNOWLEDGE WEDGE CHALLENGE: LETTER TO MI-SHELL

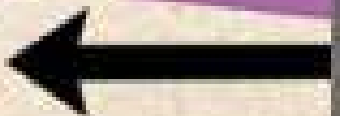
Mi-Shell needs to get from his terrarium in the *Eureka!* production office in Brooklyn to the network headquarters in midtown Manhattan (about eight miles away), while transporting two dozen cookies and a message of friendship and respect to save the show.

He may use ANY of the simple machines or inventions you have learned about so far, and you should encourage him to be creative, so he will impress the executives! He must use one simple machine and one additional invention we have studied (it can be another simple machine, but doesn't have to be) to make his journey easier. He can use inventions to ask people for help, and he can build his own inventions as long as they include the ones we have studied.

Please write him a letter to help him achieve his task.



**BETTE NESMITH GRAHAM**



Name: \_\_\_\_\_

Birthdate: \_\_\_\_\_

Birthplace: \_\_\_\_\_

Invention(s): \_\_\_\_\_

Describe a challenge or disappointment that this inventor faced.

Name one fact about this inventor or the story of his/her invention that you find interesting.

# INTROSPECTIVE INVENTORS

- How did you use knowledge today when you worked on your invention for Mi-Shell?
- How is collaboration going? Have you had any great collaboration moments today?
- Speaking personally, which simple machine is your personal favorite, and why?

# EXIT TICKET

Do you think Louis Braille proves the case of “invention breeds invention?”  
Why or why not?