

# Inventions & Innovations

## 1. Question & Research Task

Invention is when someone creates something new.

Innovation is when something is changed to make it better.

\*Note: For all World Book links, you will need to reference usernames and passwords through the BCPS Digital Content in the [Apps Portal](#)

Inventions can go through many innovative changes over the course of time.

In this Slam Dunk you will be learning about some different inventions, and how they have been changed over time.

You will use the resources within to answer the inquiry question:

**In this Slam Dunk, you will conduct brief, focused research to respond to the inquiry question:**

**How are inventions and innovations related?**

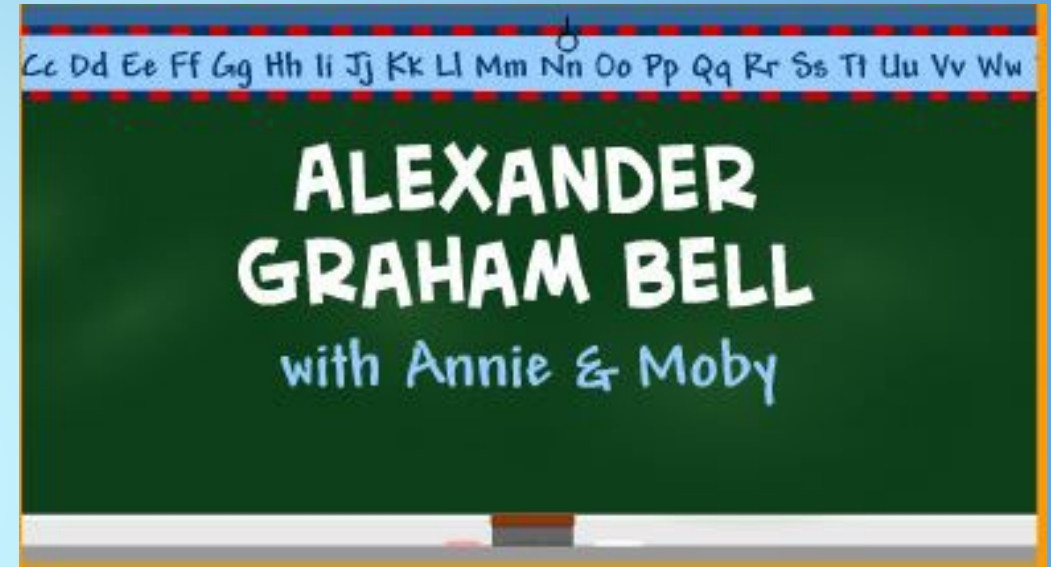


Image Source: BrainpopJr.com

## 2. Information Sources

You will use the sources linked here to research an invention and complete the Student Activity on Slide 3.

**\*\*Your teacher/librarian will give you the database login if needed.**

### Video Games

- [History of Gaming](#): From PBS, a interactive site about the Video Game Revolution. Includes an interactive timeline on the history of gaming.
- [Video Games History Timeline](#): From the Museum of Play
- [Videogame Console](#): From World Book Kids

### Telephones

- [Telephone](#): From World Book Kids
- [Cellular Telephone](#): From World Book Kids

### Cameras

- [Photography](#): From World Book Kids
- [History of Cameras for Kids](#): From Mocomi.com

### Recorded Music

- [Portable Media Player](#): From World Book Kids
- [Tape Recorder](#): From World Book Kids
- [Phonograph](#): From World Book Student

### Movies

- [History of Movies for Kids](#): From Mocomi.com
- [Motion Pictures](#): From World Book Kids
- [Video Tape Recorder](#): From World Book Kids

### Transportation

- [Early Cars Factsheet for Kids](#): From Smithsonian magazine
- [Automobile](#): From World Book Kids
- [History of Bicycles for Kids](#): Science for Kids

### Machines

- [History of the Polygraph Machine](#): From KidZone
- [Lie Detector](#): From World Book Student

### 3. Student Activity

Use the resources on Slide 2 to explore some different inventions and decide which one you would like to research.

Use the resources on Slide 2 and this **NOTES ORGANIZER** to record facts and ideas about the history of this invention. Include information about innovations that changed and improved the invention over time.

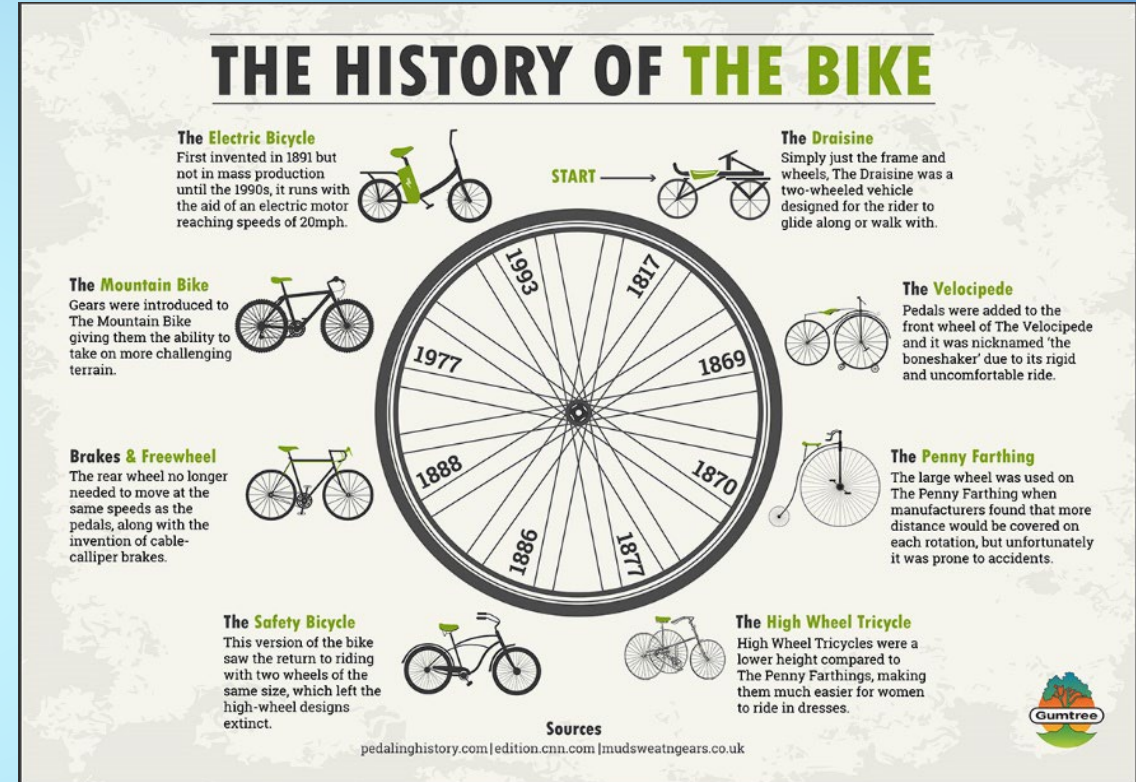


Image Source: RoadRageCycling.com

Select the image above to see a larger version of this infographic showing the evolution of the bicycle.



# 4. Assessment Activity

## How are inventions and innovations related?

You will use the notes you have gathered to create a multimedia presentation about the invention you have researched, and the innovations that have changed the invention over time.

At the end of your presentation, include a reflection that answers the questions:

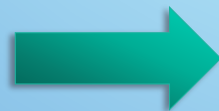
1. Do you think this invention will continue to change with time?
2. How has having this invention in my life made my life easier or better?



Image Source: Discovery Education

Here are some presentation tools that you could use to share your knowledge from this research:

- Wixie
- Google Slides
- Discovery Education Board Builder
- Voice Thread



Use BCPS Digital Content in the [Apps Portal](#) to access Wixie, Discovery Ed, and Voice Thread

# 5. Enrichment Activities

SLIDE NAVIGATION

1

2

3

4

5

6

Next

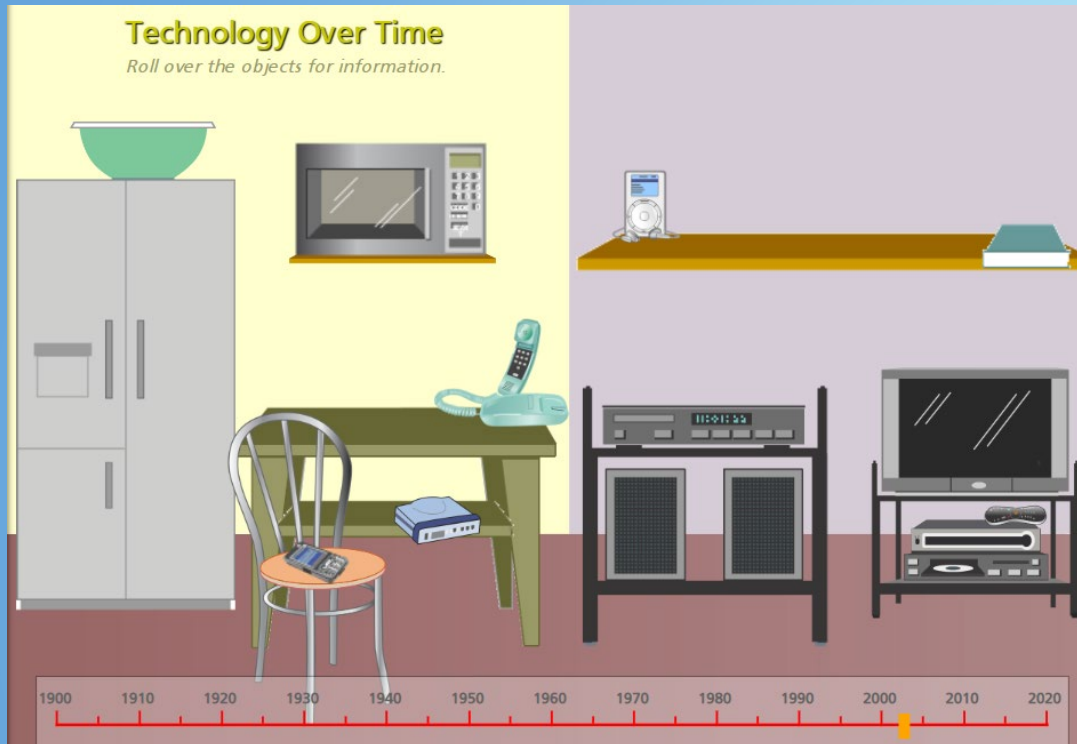


Image Source: [pbslearningmedia.org](https://pbslearningmedia.org)

Select the image above to explore an interactive timeline and learn about various technological inventions from the 1900s through today.

**Read about inventions and innovations created by kids!**

- [10 scientific innovations from kids that could change the world as we know it!](#)
- [10 Cool Inventions](#)
- [Best Inventions by Kids](#)

**What are your ideas for a new invention or innovation?** Create a drawing and a written explanation of a new invention that you think should exist, or an innovation that you think could make an existing invention even better!

# 6. Teacher Resources

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
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## Learning Standards Alignment

### Content Learning Standards

#### Maryland State Curriculum Standards

##### Technology

The Impacts of Technology: Students will develop abilities to assess the impacts of technology. Indicator Statement: Develop an understanding of the cultural, social, economic, and political effects of technology. (ITEA, STL 4)

Develop abilities to assess the impacts of products and systems. (ITEA, STL 13)

#### Common Core State Standards for English Language Arts & Literacy

**Reading: 1.** Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

**Writing: 7.** Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

**AASL Standards Framework for Learners** Inquire: Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.

Think: Learners display curiosity and initiative by:

I.A.2 Recalling prior and background knowledge as context for new meaning.

Create: Learners engage with new knowledge by following a process that includes:

I.B.1 Using evidence to investigate questions. I.B.3 Generating products that illustrate learning.

Share: Learners adapt, communicate, and exchange learning products with others in a cycle that includes:

I.C.1 Interacting with content presented by others.

Grow: Learners participate in an ongoing inquiry-based process by:

I.D.2 Engaging in sustained inquiry.

#### P21 Framework: 21<sup>st</sup> Century Student Outcomes

**3. Information, Media & Technology Skills: Information Literacy:** Access information efficiently and effectively; Use information accurately and creatively for the issue or problem at hand.

**ICT Literacy:** Use technology as a tool to research, organize, evaluate and communicate information.

## Grade 3, English Language Arts

**Objective:** Students will conduct brief, focused research in order to explain how inventions and innovations are related.

**Time Frame:** 2-3 class periods

### Differentiation strategies for this lesson:

- Have students use learning supports provided in any BCPS Digital Content in the [Apps Portal](#) included in this lesson.
- Refer to [Digital Content Snapshot/Support pages](#) as needed.

### Notes to the teacher:

- Collaborate with your school library media specialist to plan and implement this lesson.
- Have students use learning supports provided in any [BCPS-licensed Digital Content](#) included in this lesson. Refer to [Digital Content Snapshots & Support resources](#) for guidance as needed.
- Consider [using the Schoology Assignment Apps feature](#) to assign Microsoft or Google documents and files for students to access, edit, and submit through Schoology.