



Top 10 Inventions

Lesson Overview

Brainstorm with your students the most important inventions of the past 200 years. Discuss what inventions are the most important and the problems those inventions solve. Have the students, in groups research the top 10 inventions you choose as class. The students should choose one, then design an advertisement and oral presentation to argue that their invention is the most important. The class will vote on the most important invention and defend its choice. After a class vote, students can analyze the bar graphs that the teacher created with index card ballots.

Lesson Objectives

Students will be able to:

- Research inventions that have shaped the world, using multiple sources and summarizing information.
- Persuade their peers of the importance of the invention they researched.
- Decide what invention is the most important and use evidence to support their claim.
- Communicate with their peers about the inventions and their research, both orally and in written/visual form.
- Analyze data from the index card bar graphs.

Materials

- PowerPoint
- Space to record brainstorming, online platform for brainstorming
- Top 10 Inventions Worksheet
- Access to the internet through iPad, computers, or other devices for research
- Poster paper for advertisements, online platform for creating an advertisement
- Index cards

Learning Plan

Classroom Lesson:

Warm-Up (5 minutes)

Ask your students to brainstorm a few inventions they use every day and could not imagine living without. They can

Virtual considerations:

Brainstorming

Brainstorm inventions in a class discussion (either spoken or using the chat function).

share these with a partner before the class discussion. Have your students share their ideas as a class.

Brainstorm the Most Important Inventions Activity (10 minutes)

Hold a class discussion about the most important inventions of the last 200 years. Make a list and put it on the board or a piece of chart paper in front of the class. If students are struggling, they can access the websites from the Resources sheet to come up with ideas. You may provide a few suggestions to get the discussion started, but let students provide the majority of the inventions. Ask the following questions to keep the discussion going:

- Which invention has changed how people live?
- Which invention(s) would be really difficult to live without?

Our Top 10 Most Important Inventions Activity (10 minutes)

As a class, choose the top 10 inventions from your list. You can discuss each one or have students write down their votes for top 10 and tally the results.

Researching the Most Important Inventions Activity (40 minutes)

Put students into groups of two or three and assign each group one of the inventions from your list to research or let them choose their favorite. (No two groups can cover the same invention.)

The information your students should compile about the invention includes:

- Name of the invention
- A picture
- Name of the inventor(s)
- Date or year it was invented
- Brief description of how it works and what problem it solves
- How does this invention help people?
- How has this invention changed the way people live?
- What information did the inventor(s) need to know in order to create the invention?

Make sure students record the sources of their research.

The Most Important Invention Advertisement Activity (time will vary)

Groups should create an advertisement claiming their invention is the most important invention. Encourage

Brainstorm using a shared document where students can type their thoughts.

Brainstorm inventions using a post-it online platform, like Nearpod.

Brainstorm with a partner, using a shared document or Zoom breakout rooms.

Simply provide a list of inventions, without the brainstorming.

Voting

Use a polling online software to collect your students' votes.

Ask students to write their vote and display it in a whole class discussion or type their vote into a shared document.

Skip the voting process and simply assign inventions.

Assigning inventions

Assign inventions to individual students, not groups.

Assign inventions using a shared document.

Research

Students can perform their research as individuals, partnerships, or teams.

Students can display their research on a PPT or other shared document that their peers can view and comment on.

Advertisement

Students can create a drawing of their advertisement on paper, take a picture of their ad, and then submit to the teacher.

Students can create their advertisement online, using PPT or Publisher.

students to use their research and skills of persuasion as the class will vote for the most important invention.

Ask students to present their information. (Timing depends on number of groups.)

Voting for the Most Important Invention Activity (10 minutes)

At the end of all presentations, have the whole class vote for the most important invention by using index cards. Students should write on the card why they think that invention is most important, using evidence to support their claim, and place the index cards above the advertisement for the invention they think is the most important. The index cards can create a visual bar graph of votes. Ask students to analyze the bar graph they have created.

Closure/Exit (5 minutes)

Students should briefly explain the importance of inventions and how they can change people's lives. Ask students to write a few sentences about how the world might be different without some of these inventions, referring to class discussions.

Classes can gallery walk through the advertisements on a shared drive and/or students can present their advertisements in an online meeting platform (Zoom, Google Meets, etc).

Assessments

- Individual and class brainstorm ideas
- Research information and questions
- Top 10 Inventions Worksheet
- Self-Assessment reflection
- Lesson Rubric

Content Standards

Next Generation Science Standards:

Science and Engineering Practice 1:

Asking questions (for science) and defining problems (for engineering).

Science and Engineering Practice 4:

Analyzing and interpreting data.

Science and Engineering Practice 5:

Using mathematics and computational thinking

Science and Engineering Practice 7:

Engaging in argument from evidence.

Science and Engineering Practice 8:

Obtaining, evaluating, and communicating information.

Common Core ELA Standards:

CCSS.ELA-LITERACY.RI.6-8.7:

Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

CCSS.ELA-LITERACY.W.6-8.2:

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-LITERACY.W.6-8.9:

Draw evidence from literary or informational texts to support analysis, reflection, and research.

CCSS.ELA-LITERACY.SL.6-8.2:

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.SL.6-8.4:

Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.