THE HISTORY OF THE TELEPHONE

TEACHER VERSION

Subject Level: Elementary School
History

Grade Level: 2

Approx. Time Required: 30 minutes

Learning Objectives:

• Students will be able to name who invented the telephone and say why that invention is important.

• Students will be able to explain how phones have changed over time.
Activity Description

Students will learn about Alexander Graham Bell and his invention of the telephone, understanding its impact on the U.S. population and the ways that phones have changed over time.

Suggested Grade Level: 2
Approximate Time Required: 30 minutes

Learning Objectives:

- Students will be able to name who invented the telephone and say why that invention is important.
- Students will be able to explain how phones have changed over time.

Topics:
- Alexander Graham Bell
- History of the telephone
- Technological innovations

Skill Taught:
- Interpreting a bar graph
Material Required

- The student version of this activity, 11 pages; it contains images that should be printed in color.

For more information to help you introduce your students to the U.S. Census Bureau, read “Census Bureau 101 for Students.”

Activity Items

There are no separate items for this activity.

Standards Addressed

See charts below. For more information, read “Overview of Education Standards and Guidelines Addressed in Statistics in Schools Activities.”

Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

<table>
<thead>
<tr>
<th>Standard</th>
<th>Strand</th>
<th>Cluster</th>
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<tbody>
<tr>
<td><strong>CCSS.ELA-LITERACY.RI.2.3</strong></td>
<td>RI 2 – Reading:</td>
<td>Key Ideas and Details</td>
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<tr>
<td>Describe the connection between a</td>
<td>Informational Text</td>
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<td>series of historical events,</td>
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<td>scientific ideas or concepts,</td>
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<td>or steps in technical procedures</td>
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<td>in a text.</td>
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UCLA National Standards for History: Standards for Grades K-4

<table>
<thead>
<tr>
<th>Topic</th>
<th>Standard</th>
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<tbody>
<tr>
<td>4 – The History of Peoples of Many Cultures Around</td>
<td>Standard 8A: The student understands the development of</td>
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<td>the World</td>
<td>technological innovations, the major scientists and inventors</td>
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<td></td>
<td>associated with them and their social and economic effects.</td>
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UCLA National Standards for History: Historical Thinking Standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
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<tbody>
<tr>
<td>Standard 1: Chronological Thinking</td>
<td>Distinguish between past, present, and future time. Students will look at images of phones through the years to make comparisons and will review a bar graph that displays changes in landline telephone service between 1950 and 2011.</td>
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Bloom’s Taxonomy

Students will analyze historical images and a bar graph to learn how phones and landline telephone service usage have changed over time.
Teacher Notes

Before the Activity

Students must understand the following key terms:

- **Communicate** – to give or get information, such as thoughts or feelings, through speaking, writing, or making movements
- **Invention** – something, like a tool or process, that is created for the first time
- **Landline** – a type of telephone that carries phone signals through wires, so it can be used only inside a home or building

Students should have a basic understanding of the following idea:

- The ways technology shapes society

Teachers should explain what the Census Bureau is and what it does, saying that the Census Bureau counts how many people live in the United States and that it collects other important information about those people, in categories such as race/ethnicity, sex, and education. Teachers may refer to the “Census Bureau 101” one-pager mentioned earlier for more information.

During the Activity

Teachers should be aware that this activity is designed to be teacher-led. Teachers should read aloud each prompt to the class, pausing to allow students to write their answers in their student version of the activity.

After the Activity

Teachers should ask students to reflect on what they learned.

Extension Idea

- Teachers could read to students from nonfiction books about the telephone and from biographies about Alexander Graham Bell.
Student Activity
Click here to download a printable version for students.

Activity Items
There are no separate items for this activity.

Student Learning Objectives
• I will be able to name who invented the telephone and say why that invention is important.
• I will be able to explain how phones have changed over time.

The telephone is one of the most important inventions. It lets people talk to each other at the same time across long distances, changing the way we communicate today.

Alexander Graham Bell, the inventor of the telephone
loc.gov/pictures/resource/cph.3b39111
1. Like many inventions, the telephone was likely thought of many years before it was invented, and by many people. But it wasn’t until 1876 when a man named Alexander Graham Bell, pictured on the previous page, patented the telephone and was allowed to start selling it.

Can you guess what “patented” means?

*Student answers will vary. Teachers should tell students that it means that Alexander Graham Bell was named the inventor of the telephone and that the U.S. government gave him permission to sell his invention to people in America.*

2. The picture below, from over 100 years ago, shows Alexander Graham Bell using one of his first telephones to make a call from New York to Chicago.

Why do you think it was important that someone in New York could use the telephone to talk to someone in Chicago?

*Student answers will vary but could include: It was important because it meant people didn’t have to travel a long way, like from New York to Chicago, to talk. They could use a telephone to tell each other things right away, saving time and money on travel.*
3. Today, millions of people make phone calls each day, and many people have a cellphone. But long ago, when the telephone was first introduced to the American public, few people had a phone in their house! When the U.S. Census Bureau counted the number of homes with telephones for the first time, in 1889, how many homes do you think had a phone?

Student answers will vary. Teachers should tell students that the answer is 449,861 homes, which sounds like a lot, but it is little compared with how many people have phones currently. Teachers may also want to note that the Census Bureau measured phone use earlier, but it wasn’t until 1889 that the Census Bureau counted the number of homes with telephones in the United States.

4. One of the first types of telephones to become popular in the 1890s looked like the one in the picture below. There were two main pieces: the speaker, which you would hold up to your ear to hear, and the mouthpiece, which you would hold up to your mouth to talk into. People would move the little wheel at the bottom to dial a phone number.

Can you guess the name of this type of phone? (Clue: It shares its name with something that people used to use to help them see in the dark. It is also the name of something that is put on top of a birthday cake!)

Student answers may vary, but the correct answer is “candlestick phone,” or “stick phone.”

Popular phone in the 1890s

www.loc.gov/pictures/item/oh0106.photos.128795p
5. Another version of the telephone, from the 1920s, is the French-style handle phone, pictured below. You'll see it looks different from the phone used in the 1890s.

Describe how the handle phone looks different and how this new design could have changed the way people used the phone.

![Handle phone (1920s)](www.loc.gov/pictures/item/thc1995009227/PP)

Student answers will vary but could include: The handle phone has a handle so that the speaker and mouthpiece are together. This means that people could hold the phone with just one hand, letting them use their other hand freely.
6. Next came the telephone with buttons. This allowed people to dial a number on the phone more quickly than with the wheel design used on older phones. Then came the cordless phone, pictured below. Can you guess how the cordless phone got its name?

![Cordless phone (1990s)](image)

Student answers may vary, but the correct answer is that the cordless phone got its name because it didn’t have a cord connecting the base to the phone itself.

7. What do you think people could do in their home with the cordless phone that they couldn’t do before then?

Student answers will vary but could include: It allowed them to talk on the phone and move anywhere in their house. This meant they could do more things while they were on the phone and they could have more privacy by going into a different room to make a call.

8. As phones changed through the years, they became less expensive to make and buy and they let more and more people talk to each other in easier ways.

Looking at the following graph, which shows the percentage of houses that had landline telephone service between 1950 and 2011, what do you think happened during this time? Did more people get landline telephones?
To view the source data, click on the link above and go to Page 885 of the original document.

www.census.gov/prod/2013pubs/p70-136.pdf
To view the source data, click on the link above and go to Page 10 of the original document.

Student answers will vary but could include: Between 1950 and 2003, the percentage of houses with landline telephone service went up, which means that more people probably got landline telephones. In 2011, the percentage of homes with landline telephones started to go down, but that percentage was still higher than it was in 1950.

Teachers should note that student answers should reflect the overall trend (not necessarily percentages).

9. The last bar on the graph looks smaller than the others. That bar shows the percentage of houses with landline telephone service in 2011.
Can you guess why that bar was smaller in 2011?

Student answers will vary but could include: I think there were not as many houses with landline phones because more people had cellphones instead.
10. After the cordless phone came the cellphone, which lets people make phone calls from many places around the world. Cellphones used to be larger and look more similar to cordless phones, but they eventually got smaller and changed in design. See the photo below for a cellphone from the early 1990s. What are some good things about having a cellphone? What are some bad things?

![Motorola cellphone (early 1990s)](image)

**Student answers will vary but could include that it’s good to have a cellphone so you can quickly say things to other people when you’re on the go and so you can send text messages when you can’t talk. One bad thing is that it can be distracting to hear your phone ringing and beeping all the time.**

11. Alexander Graham Bell’s invention changed the world. If it weren’t for the telephone, the world would be a much different place. Name one type of phone — not a cellphone — that you learned about today and describe it.

**Student answers will vary depending on the phone chosen:**

- **Candlestick phone** – It had a separate speaker and mouthpiece and looked like a candlestick.
- **Handle phone** – It had a handle that connected the speaker and mouthpiece and a wheel to dial numbers.
- **Cordless phone** – It didn’t have a cord and was larger than most cellphones today.