From Here to There

How have we improved communication over time?

About the Lesson

OBJECTIVES

Content Objectives
- Use text features, including introductions, timeline entries, and sidebars, to answer questions about a text.
- Scan and skim multiple sources to locate information and answer questions.
- Understand the evolution of technology in communication throughout history.

Language Objectives
- Use academic terms to identify and describe text features during partner discussion.
- Include details from multiple sources to explain how the telegraph was used over time.
- Take notes about the evolution of communication.

ACADEMIC TALK

See **Glossary of Terms** on pp. 392–399.

text feature, heading, caption, sidebar, timeline, source, skimming, scanning

Build Knowledge

Lesson texts build knowledge about:
- The important events that shaped long-distance communication technology
- The importance of the telegraph and Morse code in American history
- The emoji "language" and its important role in communication today

Plan Student Scaffolds

- Use **i-Ready data** to guide grouping and choose strategic scaffolds.
- Use this **Teacher Toolbox** resource as needed to address related skills:
   — Text structure
- If possible, partner students with the same home language to support one another in understanding advancements in technology for long-distance communication. **EL**
- Preview texts and activities to anticipate barriers to engagement, access, and expression. Modify based on needs.

Use Protocols That Meet the Needs of All Students

In order to increase engagement and validate cultural and linguistic behaviors, specific protocols are included in the lesson. To further customize activities for your students, consider optional protocols listed on pp. A46–A51.

PROTOCOL	SESSION	VALIDATES
Pass It On	1	spontaneity, connectedness
Shout Out	2, 5	spontaneity, multiple ways to show focus
Silent Appointment	2	social interaction, nonverbal expression
Pick a Stick	2, 4	spontaneity
Stand and Share	3, 5, 6	spontaneity, movement, connectedness
Musical Shares	4	movement, musicality, social interaction
Merry-Go-Round Share	6	multiple ways to show focus, connectedness
Somebody Who	6	social interaction

LEARNING PROGRESSION | Find Information

Students build on this skill:
Interpret information presented visually or quantitatively (e.g., in time lines) and explain how the information contributes to an understanding of the text in which it appears.

Students learn this skill:
Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Students prepare for this skill:
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.

Students review and practice:
- Make inferences
- Determine main idea and key details
- Analyze a historical text
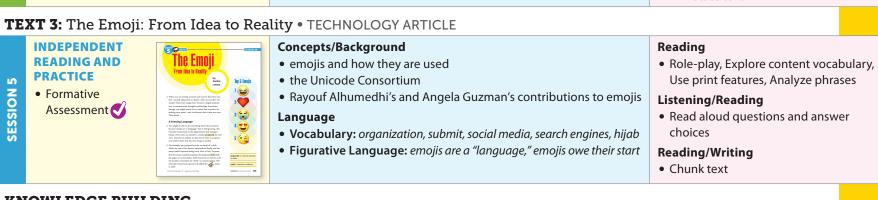- Determine word meanings

LESSON PLANNING GUIDE

TEXT 1: A Visual History of Communication • TECHNOLOGY ARTICLE

SESSION 1 / SESSION 2		TEXT AT-A-GLANCE	ENGLISH LEARNER SUPPORT (EL)
SESSION 1	**SCAFFOLD READING**	**Concepts/Background** • the evolution of long-distance communication technology • electrical wires and wireless radio waves	**Speaking/Reading** • Build background knowledge, Explore content vocabulary
SESSION 2	**PRACTICE THE FOCUS STANDARD** • Formative Assessment ✓	**Language** • **Vocabulary:** *telegraph, enabled, (electric) currents, electromagnetic, transmitted, radio waves, version, ringtones, feature, download, telecommunications, touchscreen*	**Speaking/Reading** • Collaborate with a partner **Listening/Writing** • Clarify directions

TEXT 2: Live Wires • TECHNOLOGY ARTICLE

SESSION 3	**SCAFFOLD READING**	**Concepts/Background** • Morse code, how it works, and who uses it • working as a telegraph operator • the important role of telegraphers in the American Civil War and the Chicago Fire of 1871	**Reading** • Use visual support **Listening/Reading** • Interpret idioms **Speaking/Reading** • Leverage cognate support
SESSION 4	**PRACTICE THE FOCUS STANDARD** • Formative Assessment ✓	**Language** • **Vocabulary:** *isolated, (electrical) impulses, universally, transcribed, collisions, regardless, privilege, contributions, devastating, vital, efficient, extinct, alternative, disabilities, impaired* • **Idiom:** *fell out of use* • **Figurative Language:** *kept in touch … by chatting over the line*	**Speaking/Reading** • Prompt retelling **Speaking/Writing** • Establish peer support, Reinforce academic vocabulary **Writing** • Annotate text

TEXT 3: The Emoji: From Idea to Reality • TECHNOLOGY ARTICLE

SESSION 5	**INDEPENDENT READING AND PRACTICE** • Formative Assessment ✓	**Concepts/Background** • emojis and how they are used • the Unicode Consortium • Rayouf Alhumedhi's and Angela Guzman's contributions to emojis **Language** • **Vocabulary:** *organization, submit, social media, search engines, hijab* • **Figurative Language:** *emojis are a "language," emojis owe their start*	**Reading** • Role-play, Explore content vocabulary, Use print features, Analyze phrases **Listening/Reading** • Read aloud questions and answer choices **Reading/Writing** • Chunk text

KNOWLEDGE BUILDING

SESSION 6	**RESPOND TO THE FOCUS QUESTION** • *How have we improved communication over time?*	• Integrate information from the lesson texts • Collaborative discussion • Short response	**Speaking/Writing** • Talk before writing

Before Teaching the Lesson

Preview the texts in advance of teaching the lesson. Plan scaffolds to use and provide background information as needed before reading each text.

- **A Visual History of Communication / Live Wires: The Telegraph and Telegram** A telegraph is a device used to send messages. A telegram is the printed message sent by a telegraph. As an alternate means of representation, show video of operators sending and receiving telegraph messages in Morse code.
- **The Emoji: From Idea to Reality: The Unicode Consortium** Emojis are fun images that add color and style to messages. More importantly, as the world becomes ever more digital, emojis may become a primary way for people who speak different languages to communicate.

Talk About the Topic

BUILD STUDENTS' INTEREST

1
- Introduce the lesson topic. Tell students they will read, talk, and write to learn about communication devices and methods.
- Introduce the focus standard. **Say,** *As you read, you will find information from multiple sources, including visuals.*
- Use **Pass It On** to have students name devices they use to communicate.

2
- Have a volunteer read the Focus Question aloud.
- Support understanding by asking students how they communicate with friends and relatives who live across town or even in another country. Emphasize that technology and communication includes specific devices as well as different ways of using those devices. **EL**

3
- Ask students to complete Notice and Wonder with a partner.
- Circulate to identify gaps in background knowledge.
- Use **Vote with Your Feet** to have students pick the text that interests them the most.

1

From Here to There

2 **FOCUS QUESTION**

How have we improved communication over time?

3 **NOTICE AND WONDER**

Look at the three texts you will read in this lesson. What do you notice? What do you wonder? Discuss your ideas with a partner.
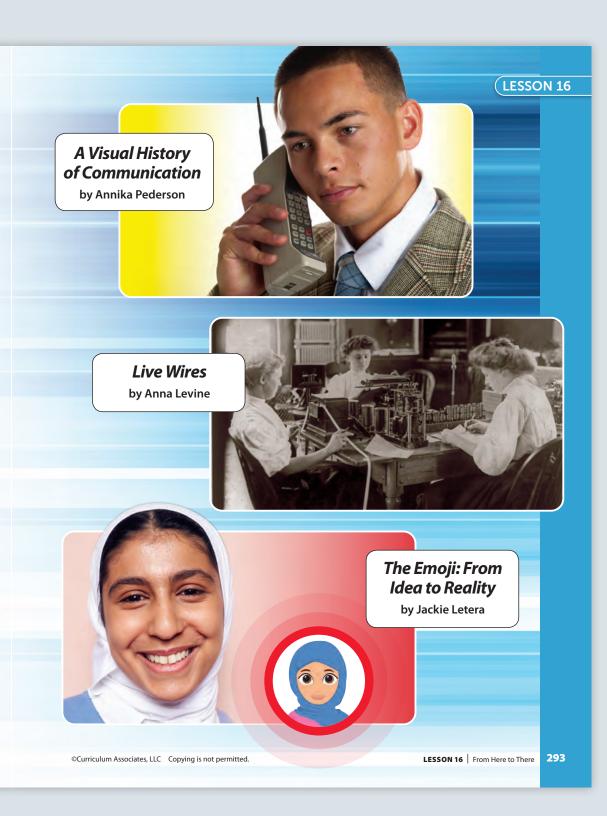
4 **TECH TIME**

Read the terms related to technology and communication. Draw a circle around any terms you know. Add more terms in the space below. Do not worry if you don't know all of the terms; you will learn about them in the lesson.

telegraph	Morse code	emoji
text message	email	smartphone

_____

_____

_____

> The term ___ means ___. This type of communication makes me think of the related term ___.

> The term ___ is also related to technology and communication.

A Visual History of Communication
by Annika Pederson

Live Wires
by Anna Levine

The Emoji: From Idea to Reality
by Jackie Letera

4 **INTRODUCE ESSENTIAL CONCEPTS**

- Introduce Tech Time. Point out that *tech* is short for *technology*. Have students **Raise a Hand** to share what *technology* means. Repeat accurate ideas to confirm understanding.

- Have a volunteer read the terms aloud.

- Encourage students to write unfamiliar terms in their word journals and to fill in their definitions as they move through the lesson. **EL**

- Have students complete the activity. Reinforce that it's okay to not know terms. Then have students **Turn and Talk** to share what they know about the types of communication they recognized.

- Use **LISTEN FOR** to monitor understanding. Use **Help & Go** scaffolds as needed.

- **LISTEN FOR** Students use the technology and communication terms in their discussions.

> **HELP & GO: Academic Discussion**
>
> - Reinforce that when you talk about something specific, it's important to state the term and then keep it as the main topic.
> - Model an example: **Say,** *One term is* email. *Email is an electronic way to send a letter. In fact, I think the* e *in* email *stands for "electronic."*

- Have a few students **Raise a Hand** to share their knowledge of one term with the whole class. Repeat accurate information and clarify any misunderstandings.

- **Ask,** *What do the terms have in common?* Discuss as a class. Encourage students to agree and build on each other's ideas. Guide students to understand that the terms all have to do with the act of people sharing ideas and connecting with others in different ways and for different reasons.

1 Support Reading

- Set a purpose for reading. **Say,** *You will read to learn about how people have sent messages over the last 150 years.*

- Have students read the introduction and the first half of the timeline. Have them circle unknown words and mark confusing parts with a question mark.

- Use **CHECK INs** and **Help & Go** scaffolds as needed to support understanding. Monitor based on annotations, observation, and your knowledge of students.

- **CHECK IN** Students understand the basic structure and use of a timeline.

HELP & GO: Text Structure

- Have students look at the text as a whole. Point out the three types of text on the pages: introductory text, timeline entries, and sidebar.

- Have students put their finger on the first entry in the timeline (1837) and trace it with their finger to its end (1992). **EL**

- **Ask,** *What do the circles on the timeline represent? Each circle marks a year when a development in communication occurred.* Explain that each entry of text corresponds with a circle on the timeline, and that students should read the entries from left to right in the order that the circles appear.

2 Stop & Discuss

- Have partners complete **Stop & Discuss**.

- **LISTEN FOR** Students understand why the first transatlantic radio message was so exciting.

HELP & GO: Comprehension

- **Ask,** *Which feature of the text tells about a radio message? the timeline entry for 1901*

- *How was the radio different from previous types of communication? The telegraph and telephone needed wires to transmit messages, but the radio could send them wirelessly.*

A Visual History of Communication

by Annika Pederson

1 The world of communication has changed remarkably over the last 150 years. Until 1876, the telegraph was the only form of technology that enabled rapid long-distance communication. But though the telegraph changed the way people communicated, it fell out of use after the telephone was invented in 1876. Further developments in technology took place relatively quickly over the next century or so. This timeline shows important moments.

1837

Electric Telegraph
William Cooke and Charles Wheatstone invented the first commercial electric telegraph. They received a patent, or the legal right to be the only ones to make it. It sent electric currents over a wire to a receiver. Needles on the receiver would point to letters to spell out the sender's message.

2

Stop & Discuss

Why was the first radio message so exciting compared to the technology that came before it?

1844

A ·—	N —·	1 ·————
B —···	O ———	2 ··———
C —·—·	P ·——·	3 ···——
D —··	Q ——·—	4 ····—
E ·	R ·—·	5 ·····
F ··—·	S ···	6 —····
G ——·	T —	7 ——···
H ····	U ··—	8 ———··
I ··	V ···—	9 ————·
J ·———	W ·——	0 —————
K —·—	X —··—	
L ·—··	Y —·——	
M ——	Z ——··	

Morse Code Message
Samuel Morse sent the first Morse code message on an electromagnetic telegraph he had invented seven years earlier. Morse developed the code with Alfred Vail. Messages were sent by tapping out coded sequences of short and long signals, known as dots and dashes, for each number and letter.
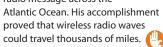
1876

Telephone Alexander Graham Bell was awarded the first patent for the telephone. It transmitted people's voices over electrical wires.

1901

Radio Message
Italian inventor Guglielmo Marconi transmitted the first radio message across the Atlantic Ocean. His accomplishment proved that wireless radio waves could travel thousands of miles.

3 Support Reading

- Have students read the second half of the timeline and the sidebar.
- **CHECK IN** Students understand the purpose of the text entries on the timeline and of the sidebar.

HELP & GO: Text Features

- Draw students' attention to the entry for 1973 on the timeline. **Ask,** *How do you know what the entry is about? The boldface type tells what communication technology appeared in that year.*
- *How is the sidebar related to the timeline entries? The sidebar tells more about the cell phone and the smartphone, and how they relate to each other, than the timeline entries do.*

4 Stop & Discuss

- Have students **Turn and Talk** to complete **Stop & Discuss**.
- **LISTEN FOR** Students understand that the Web lets people share and store information.

HELP & GO: Comprehension

- Have students locate and reread the timeline entry for the World Wide Web. **Ask,** *How is the Web used to communicate? People can store and share information on the internet.*
- Clarify that the World Wide Web and the internet are often used to refer to the same computer network. **EL**

Discuss the Whole Text

Use **Pass It On** to have students respond to the following prompt: *How have communication devices and methods improved?* Encourage students to reference the timeline and compare and contrast the devices. Have volunteers record and display the class's ideas.

CELL PHONES THEN AND NOW

Cell phones have been transformed since they were introduced in 1973. The first cell phone weighed 2 ½ pounds (1,134 grams) and simply allowed people to talk to each other. It was much later, in 1998, when ringtones became the first feature that people could download. Today's smartphones perform many of the tasks that full-size computers do, but they can weigh as little as 4 ounces (113 grams).

1973

Today

1971

Email Computer engineer Ray Tomlinson sent the first electronic mail message. The message was sent between computers in the same room through an early version of the internet.

1973

Cell Phone The first cell phone, developed by a team of engineers led by Martin Cooper, was the size of a brick. It cost more than most people could afford, but you could take it with you!

1989

World Wide Web Invented by Tim Berners-Lee, the Web gave computers (and the people using them!) a way to share and store information on the internet.

1992

Text Message Neil Papworth, an engineer for a telecommunications company, sent the world's first text message. One year later, text messaging was available on cell phones, but it was not used widely until the late 1990s.

Smartphone The first smartphones let users access email. These phones had a calendar, calculator, notepad, touchscreen keyboard, and more. Four years later, smartphones could also access the Web, but it wasn't until 2007 that they became popular.

4

Stop & Discuss

How did the World Wide Web improve communication?

Reconnect to the Text

Have students **Shout Out** communication methods they recall from the various features of "A Visual History of Communication."

1 Introduce the Standard

With students, introduce the standard and review the instructional information at the top of the student page. **Say,** *Being able to find information from different parts of a source will help you understand a topic more thoroughly.*

2 Reread/Think

MODEL THE STANDARD Refer to the text features to model how to use them to find information.

- **Say,** *"A Visual History of Communication" includes three text features: an introduction, a timeline, and a sidebar. The timeline includes elements such as dates, images, and text entries that begin with boldface topics. All of these elements and features provide information that we can use to help answer questions about the text.*

- Model answering a question about the text. **Say,** *I read in the introduction that "until 1876" the telegraph was the only form of long-distance communication. What happened in 1876? Let me look at the timeline. I see there that in 1876 the telephone was patented. If I were filling in this chart, I would put a checkmark in the "Introduction" and "Timeline Entry" columns to show where I found my information.*

GUIDE STANDARDS PRACTICE Refer students to their chart.

- Read the first question aloud. Tell students to repeat the process you modeled to answer the question.

- Have students make a **Silent Appointment** and complete the chart with their partner.

- Have pairs check one another's work. **EL**

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1 Find Information from Multiple Sources

- You often need to look at many parts of a text to find information on a topic. Knowing how to get information from different parts of the text can help you answer questions quickly.

- **Text features** are special parts of a text that help you find certain information. Headings, captions, and sidebars are examples of text features.

2 Reread/Think

Answer each question using information from "A Visual History of Communication." Then make a checkmark in one or more columns to show the text features in which you found the information.

Question	Introduction	Timeline Entry	Sidebar
What was the relationship between the telegraph and Morse code? **Morse code was made up of signals called dots and dashes. Messages in Morse code were sent over a telegraph, the first technology invented for fast long-distance communication.**	✓	✓	
What happened in 1971? **The first electronic mail (email) message was sent.**		✓	
How are smartphones different from cell phones? **Cell phones were initially the size of a brick, weighed 2½ pounds, and could only call. Smartphones may weigh 4 ounces and can do much of what a full-size computer can do.**		✓	✓

3 Talk

- Have students complete the Talk activity. **Ask,** *Which of the text features seems to include the most information? What details do the other features add?*

- **LISTEN FOR** Students refer to information from all of the features of the text. Use **Help & Go** scaffolds as needed. ✓

HELP & GO: Standards Practice

- Recommend that students review the topics of the introduction and the sidebar. Have them make a bulleted list to help them remember what each of these features covers.
- Next, have students reread the timeline. Remind them that the dates and the boldface topic labels carry information in addition to the text itself.
- Finally, have students combine information from the three text features to review their answer to each question in the chart. Tell them to revise their charts as needed.

4 Write

- Read the prompt aloud.
- Clarify that each entry on the timeline represents a single development in the history of communication. A *development* is an improvement. **EL**
- Use written responses to determine whether students need additional support. ✓
- Use **Pick a Stick** to have a few students share their responses.

3 Talk

Refer to the text features of "A Visual History of Communication" as you discuss your answers in the chart.

> I learned ___ and ___ about the telegraph from the introduction and the timeline.

> The sidebar tells me more about ___ than the timeline does.

4 Write

How did communication develop from the telegraph to the smartphone? Include at least four developments from "A Visual History of Communication" and draw details from all of the text features to support your response.

Sample response: The telegraph sent the first message in Morse code in 1844. The telegraph was the only technology for long-distance communication until the telephone was invented in 1876. The development of the cell phone in 1973 meant that people could take their phone with them. The cell phone allowed people to place or receive calls anytime and anywhere, but it couldn't do anything else. The smartphone became available in 1992, and it could do many of the tasks that a full-size computer could do.

WRITING CHECKLIST

- ☐ I included details about at least four developments in communication.
- ☐ I used details from the introduction, the timeline entries, and the sidebar.
- ☐ I used complete sentences.
- ☐ I used correct spelling, punctuation, and capitalization.

1 Support Reading

- Have students **Stand and Share** details they recall about the telegraph and Morse code from Session 1. Then set a purpose for reading. **Say,** *Now you will read to learn more about the telegraph system.*

- Have students read paragraphs 1–5. Have them circle unknown words and mark confusing parts with a question mark.

- Use **CHECK INs** and related **Help & Go** scaffolds as needed.

- **CHECK IN** Students understand *isolated* in paragraph 2.

> **HELP & GO: Vocabulary**
>
> - Point out Utah's location and large size on a map. **Say,** *Utah became a state in 1848. Rugged terrain and a lack of transportation made travel difficult. People in parts of the state were isolated.* Isolated *comes from a Latin word that means "island." What does* isolated *mean? separated or apart from*
> - Have students add *isolated* to their word journals.
> - Ask students how people work through barriers, like isolation, to connect.

2 Stop & Discuss

- Have students **Turn and Talk** to complete **Stop & Discuss**.

- **LOOK FOR** Students understand that the telegraph constituted "instant messaging" in the 1800s.

> **HELP & GO: Comprehension**
>
> - Have students reread paragraphs 4 and 5. **Ask,** *How did the telegraph work? Operators used a code of dots and dashes to send messages over wires.* Elicit that sending a message this way was quicker than other types of communication over great distances at the time.
> - Have students use the chart to practice writing a word or several letters in Morse code. **EL**

SESSION 3 📖 **READ**

LIVE WIRES

by Anna Levine

1 1 What do you do when you want to talk to a friend? Do you pick up the phone? Send a text?

2 If this were the 1800s and you lived in an isolated area like Woods Cross, Utah, sending a message instantly would be one way.

3 Believe it or not, long-distance chatting is more than 150 years old. It started with the invention of the telegraph, a system for transmitting messages long distances along a wire.

Dots and Dashes

4 The messages received by telegraph looked a lot different from the ones we receive today by computer or phone. The **electromagnetic** telegraph system used coded signals designed by inventor Samuel Morse and Alfred Vail. The code used different sequences of dots and dashes to represent letters, numbers, and punctuation.

5 The dots and dashes were sent by skilled telegraph operators, using a tapper, or "key." One short tap was a dot. One long tap was a dash. The taps were changed into electrical impulses and transmitted over telegraph wires. On the other end of the wire, the telegraph operator converted the electrical impulses into dots and dashes on paper tape. These dots and dashes became universally known as Morse code. 🖐

> **electromagnetic** = relating to an electric current and a magnetic field

2

Stop & Discuss

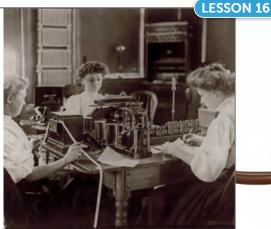**What did a long-distance instant message look like in the 1800s?**

Underline the sentences in paragraphs 4 and 5 that best support your response.

3 Support Reading

- Have students read paragraphs 6–8.
- **CHECK IN** Students understand the phrase *chatting over the line* means "sending telegraph messages."

HELP & GO: Vocabulary

- **Ask,** *What did telegraph operators do for work?* send and receive messages using a telegraph machine
- **Ask,** *What two words make up* online? Explain that a connection (electrical, cellular) that links devices is called a *line*.
- Refer students to the phrase *chatting over the line* in paragraph 8. Point out that the telegraph line was an actual physical electrical line, so chatting "over the line" was literal, unlike our current "online chatting."

4 Stop & Discuss

- Have students **Turn and Talk** to complete the **Stop & Discuss**.
- **LISTEN FOR** Students explain that the telegraph allowed operators to make and maintain long-distance friendships.

HELP & GO: Comprehension

- Have a few students share ways they interact with their friends after the school day. Point out that the operators interacted with their work friends after their workday was over.
- Explain that *keep in touch* means "communicate"; it does not relate to physical touch or contact. **EL**
- Reread paragraph 8. Point out the direct quotation by Love in the text. Have a student read it aloud.
- Have a volunteer rephrase how the telegraph was a part of the operators' social lives.

Morse code table:

A	•—	N	—•	1	•—————	
B	—•••	O	———	2	••———	
C	—•—•	P	•——•	3	•••——	
D	—••	Q	——•—	4	••••—	
E	•	R	•—•	5	•••••	
F	••—•	S	•••	6	—••••	
G	——•	T	—	7	——•••	
H	••••	U	••—	8	———••	
I	••	V	•••—	9	————•	
J	•———	W	•——	0	—————	
K	—•—	X	—••—			
L	•—••	Y	—•——			
M	——	Z	——••			

6 The more experienced telegraphers didn't have to see the dots and dashes transcribed but could "read" them by their sounds as they came over the wire. Skilled operators even claim they could tell who was at the key by the sound of the clicks!

The Workday and Beyond

7 Telegraph operator was the **"high-tech"** job of the 1800s and the first high-tech job open to women. (The majority of operators were still men, however.) Many operators were employed by railroad companies. They helped prevent collisions by letting train engineers know when the train ahead of them had left a station. Other operators worked in offices that transmitted messages for businesses and private citizens. These telegraph offices were often located in hotels or even private homes.

8 Regardless of where telegraph operators worked, after the workday they found entertaining ways to communicate with each other. Mary Ellen Love was a telegrapher in Utah. Love said that she and her operator friends in different offices kept "in touch with each other by making use of the privilege of chatting over the line after business hours." They had "online" social lives, even in the 1860s! Telegraphers used all kinds of abbreviations in their messages, too—similar to today's LOL and UR. ✋•••••••••••••••••••••••••••••••••••••

Women with telegraph equipment, about 1908. One operator *(left)* handles receiving tape on which a telegraph message is written in Morse code *(far left)*.

high tech = abbreviation for "high technology"; refers to the most modern or current technology available

Stop & Discuss

How did the telegraph machine impact the social lives of the operators?

> The telegraph machine allowed the operators to ___.

LESSON 16 | From Here to There **299**

5️⃣ Support Reading

- Have students read paragraphs 9–11.
- **CHECK IN** Students understand the phrases *grew in popularity* (paragraph 10) and *fell out of use* (paragraph 11).

HELP & GO: Language

- Have students identify cognates, such as the Spanish cognate *popularidad*. **EL**
- **Ask,** *What does it mean if something grew in popularity? It became more liked and used.*
- Challenge students to scan paragraph 11 and circle the four-word phrase that means the opposite of *grew in popularity*. *(fell out of use)*
- Point out that *grew in popularity* shows the increase of use of the telegraph while *fell out of use* shows the decline.

6️⃣ Stop & Discuss

- Have students **Turn and Talk** to complete the **Stop & Discuss**.
- **LOOK FOR** Students underline the first sentence of paragraph 11.

HELP & GO: Comprehension

- **Ask,** *What happened by the early 2000s? The telegraph fell out of use. Why did people stop using the telegraph? Did they stop communicating with others?* Guide students to understand that communication did not stop but the telegraph was replaced by new devices.
- Read the first sentence of paragraph 11 aloud. **Ask,** *What makes something efficient?* Discuss. Confirm that it means "more productive, faster, cheaper, or easier to use."

Discuss the Whole Text

Encourage students to discuss what their lives would be like without any instant messaging. Revisit the Focus Question by asking how the telegraph improved communication. Record and display responses.

SESSION 3 📖 READ

(Left) **A man operates a telegraph key on Nantucket Island, Massachusetts.** *(Right)* **During World War II, the *New York Times* telegraphed news twice daily to ships at sea using Morse code.**

5️⃣ The Telegraph and Society

9 Telegraphy gave operators the opportunity to make important contributions to society. M. E. Randolph, a telegrapher during the Civil War, passed so many messages over the lines about treating the injured and sick that she volunteered to help get supplies to wounded soldiers! Others, like Eliza Stone, were fearless in carrying out their duties. As a telegrapher in Chicago at the time of the devastating city-wide fire in 1871, Stone remained at her post sending vital information until the last possible moment.

10 Telegrams grew in popularity over the years, reaching their top popularity in the 1920s and 1930s. At that time, the telephone had already been around for 50 years. But it was still cheaper to send a telegram than to make a long-distance phone call.

11 Over the years, newer, more efficient systems of long-distance communication were developed. The telegraph fell out of use by the early 2000s. The last commercial telegram was sent in 2013. However, Morse code is not extinct. It is still used today by aircraft and military professionals. It is also used as an alternative form of communication for people with disabilities or whose ability to communicate is impaired. ✋

6️⃣ Stop & Discuss

Why was the telegraph no longer used much by the early 2000s?

Underline the sentence in paragraph 11 that best supports your response.

SESSION 4 ✏️ PRACTICE

LESSON 16

① Find Information from Multiple Sources

- **Sources** are texts or images that give information about a specific subject area or topic. Sources may be printed or digital. Different sources may approach the same topic differently.
- After you read a text carefully, using strategies like scanning and skimming can help you find information quickly. **Scanning** is searching for a specific text feature, word, or phrase. **Skimming** is reading through something quickly to find the main facts or ideas.

② Reread/Think

Use both "A Visual History of Communication" and "Live Wires" to answer the questions. Then make a checkmark in one or more columns to show where you found the information.

Question	A Visual History of Communication	Live Wires
When was the electric telegraph invented? **1837**	✓	
How did telegraph operators use the telegraph in their free time? **They chatted with friends.**		✓
Why were telegrams still popular after 1876? **Even after the telephone came into use, it was cheaper to send a telegram than to make a "long-distance" phone call.**	✓	✓

Choose one answer and translate it into Morse code using the diagram in "Live Wires."

Sample answer: 1837 = .————   ———..   ...——   ——...

Reconnect to the Text

- Have students **Raise a Hand** to recall ideas and details they remember from "Live Wires."
- Provide cue words: *telegraph, Morse code, dots and dashes, operators, social lives*. **EL**

① Practice the Standard

Have students read the instructional information at the top of the student page. **Say,** *Skimming and scanning information from different sources can remind you of details about a topic and help you answer questions about it.*

② Reread/Think

MODEL THE STANDARD Say, *To answer a question, first read the question carefully. Then scan sources, looking for features like headings or captions that relate to the question. Skim the sections you've found for more specific information. Finally, reread the parts of the text that apply to the question.*

- Display this sample question: *What was a high-tech job in 1850?* **Say,** *I scan the first text and see two dates: 1837 and 1844. Those years are close to the dates in the question, so I'll skim those sections of the timeline. I see the words* telegraph, Morse code, *and* electric.
- *Then, I scan the second text. I see that* high-tech *is a defined word, so that tells me where to skim—and I find the word in paragraph 7. I'll reread just that paragraph. It's about the telegraph. I answer: Telegraph operator was a "high-tech" job in 1850.*

GUIDE STANDARDS PRACTICE Have students complete their charts by answering each question and indicating where they found the answer. Finally, have them translate one answer into Morse code.

- Circulate and assist students as necessary.
- Consider having mixed language proficiency partners work together to complete the chart. **EL**
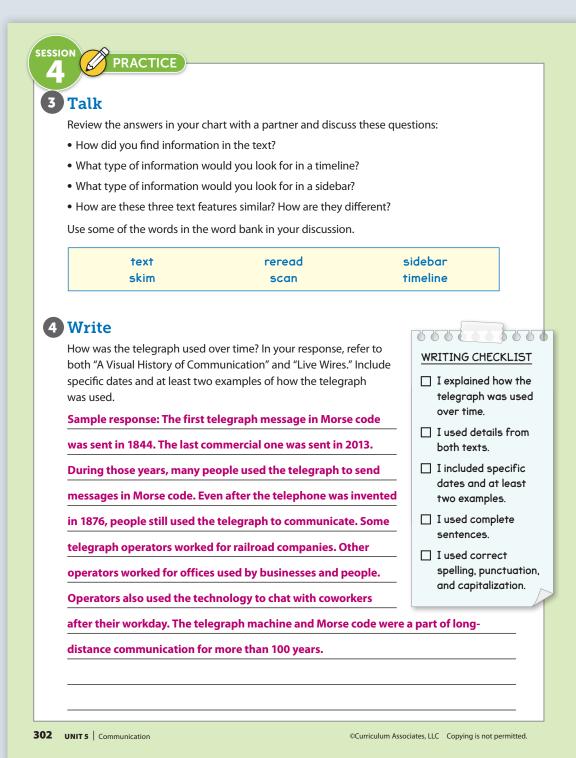
3 Talk

- Introduce the Talk activity. **Say,** *Now you are going to think and talk about how you find information in different text features. Use the words in the word bank to talk to your partner.*

- Remind students to double-check their answers with a partner and make corrections as necessary.

- Have students use **Musical Shares** as they complete the Talk activity.

- **LISTEN FOR** Students explain and evaluate their own process using academic terms. ✔️
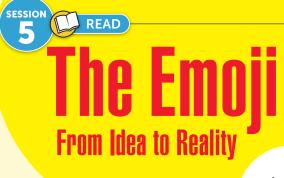
> **HELP & GO: Academic Discussion**
>
> - Direct students to go back and review any terms in the word bank that they don't remember. Have them explain the meaning of each one and record the term and its meaning in their word journals. **EL**
> - Provide sentence frames such as the following:
>   — *To scan a text, I ___. To skim a text, I ___.*
>   — *To answer the question, first I ___.*
>   — *When I have to find information in more than one text feature, I ___.*

4 Write

- Introduce the Write activity. **Say,** *Now you have another chance to find information from multiple sources. Think about your answers to the Talk questions to help you find information to respond to the prompt.*

- Read the prompt aloud. Have students find information from both sources and complete their response.

- Have students circle the information in the texts that answers the question and discuss with a partner before writing. **EL**

- Use written responses to determine whether students need additional support. ✔️

- Use **Pick a Stick** to have a few students share their responses.

SESSION 4 ✏️ **PRACTICE**

3 Talk

Review the answers in your chart with a partner and discuss these questions:

- How did you find information in the text?
- What type of information would you look for in a timeline?
- What type of information would you look for in a sidebar?
- How are these three text features similar? How are they different?

Use some of the words in the word bank in your discussion.

text	reread	sidebar
skim	scan	timeline

4 Write

How was the telegraph used over time? In your response, refer to both "A Visual History of Communication" and "Live Wires." Include specific dates and at least two examples of how the telegraph was used.

Sample response: The first telegraph message in Morse code was sent in 1844. The last commercial one was sent in 2013. During those years, many people used the telegraph to send messages in Morse code. Even after the telephone was invented in 1876, people still used the telegraph to communicate. Some telegraph operators worked for railroad companies. Other operators worked for offices used by businesses and people. Operators also used the technology to chat with coworkers after their workday. The telegraph machine and Morse code were a part of long-distance communication for more than 100 years.

WRITING CHECKLIST

- ☐ I explained how the telegraph was used over time.
- ☐ I used details from both texts.
- ☐ I included specific dates and at least two examples.
- ☐ I used complete sentences.
- ☐ I used correct spelling, punctuation, and capitalization.

SESSION 5 READ · LESSON 16

The Emoji
From Idea to Reality

by Jackie Letera

1

1 When you are texting a friend and want to show how you feel—excited, disgusted, or sleepy—what can you do? Use emojis! These tiny images have become a hugely popular way to communicate thoughts and feelings. Sometimes, though, you might search for an emoji that is perfect for making your point—only to discover that it does not exist. Then what?

A Growing Language

2 You might be able to do something about that situation, because emojis are a "language" that is still growing. The Unicode Consortium is the organization that manages emojis. Every year, its members consider **proposals** for new ones. Anyone can submit an idea, but to have it accepted you need to show that the new image is needed.

3 For example, one proposal was for an emoji of a sloth. Sloths are one of the slowest mammals on Earth, and the emoji would represent being tired, slow, or late. To prove that the emoji would be popular, the proposal **cited** sloth fan pages on social media, sloth characters in movies, and the number of matches for "sloth" in search engines. The Unicode Consortium agreed and added the 🦥 emoji in 2019.

Top 5 Emojis

1 😂
2 ❤️
3 😭
4 😍
5 😘

proposals = a formal requests or ideas

cited = named as evidence

Reconnect to the Texts

Display responses to the Focus Question for "A Visual History of Communication" and "Live Wires." Invite students to make connections between the two texts.

1 Independent Reading

- Set a purpose for learning. **Say,** *Today you will read a text to learn about a more recent type of communication: the emoji.* Have a student **Stand and Share** to explain what an emoji is and how it's used. Clarify as needed.

- If students need more support, work with them in small groups to guide reading.

- Use **CHECK INs** and related **Help & Go** scaffolds as needed.

- **CHECK IN** Students understand the subtitle phrase *from idea to reality*.

HELP & GO: Language

- Read the subtitle aloud. Refer students back to the timeline in Session 1. **Ask,** *How did Morse and Vail or Alexander Graham Bell take their ideas about communicating and make them realities?* Discuss.

- Have students mime how they would look if they just had a sudden idea for a great new invention. Explain that building that invention is an example of changing an idea into a reality. **EL**

- **CHECK IN** Students understand what it means to submit an idea.

HELP & GO: Comprehension

- Refer students to paragraph 2. Define *submit* as "give something important to one or more people." As an example, **say,** *When I was in school, I had to submit my homework to my teachers.* **EL**

- **Ask,** *Can anyone try to get a new emoji approved? Yes. What do you have to prove? that it is needed*

- Have students reread paragraph 3. **Ask,** *What did the sloth proposal cite as evidence to prove a sloth emoji was needed? fan pages, movies, matches in search engines*

2 Independent Reading

- **CHECK IN** Students understand the use of the hypothetical question in paragraph 5.
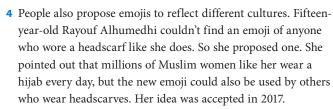
> **HELP & GO: Text Structure**
>
> - **Ask,** *What does an exclamation point communicate? How about a question mark?* *excitement; a question* **EL**
> - Have a volunteer read paragraph 5 aloud, using the inflections signaled by the exclamation point and the question mark.
> - **Ask,** *What is the purpose of the question?* Guide students to understand that the author uses the question as more of a call to action than a question the author expects students to answer.

- **CHECK IN** Students understand Guzman's suggestion that an image can be powerful.

> **HELP & GO: Comprehension**
>
> - Have students recall details about Angela Guzman. **Ask,** *What are some facts of Guzman's life? studied design in college; moved to the United States; unable to speak English at first; drew pictures to communicate*
> - **Ask,** *How important were the pictures Guzman drew for her teachers and classmates when she moved to the United States? very important Why? It was her only way to communicate.*
> - Reread the quotation in paragraph 2 of the sidebar. Tell students that the phrase *even though* means "even when" or "even if." Elicit that pictures, including emojis, can communicate when words aren't an option. **EL**
> - Have students recollect a time when an image made an impression on them.

Reflecting Cultures

2 **4** People also propose emojis to reflect different cultures. Fifteen-year-old Rayouf Alhumedhi couldn't find an emoji of anyone who wore a headscarf like she does. So she proposed one. She pointed out that millions of Muslim women like her wear a hijab every day, but the new emoji could also be used by others who wear headscarves. Her idea was accepted in 2017.

5 As of 2020, the collection had grown from about 500 original emojis to more than 3,000! Do you believe an important emoji is still missing? Then it might be time to start a proposal. You never know which emojis will be added next—and your idea just might be one of them.

Rayouf Alhumedhi proposed an emoji of a person wearing a headscarf.

Emoji Designer

Some of today's emojis (❤️🎉🙋‍♀️) owe their start to Angela Guzman. In 2008, while she was studying design in college, she started working for a major tech company. When the company assigned her to design hundreds of emojis, she initially thought, "What *is* an emoji?" Even though emojis had become popular in Japan in 1999, many people in other countries had never heard of them.

But Angela already understood the benefits of communicating through images. She had been born in Colombia, and when she moved to the United States as a child, she spoke no English. So she drew pictures to communicate with her teachers and classmates. She said, "I noticed immediately the power that an image can have on someone even though you don't speak the same language." The emojis that she later designed are helping people around the world share their ideas.

Respond to Text

3 Reread/Think

Reread "The Emoji: From Idea to Reality." Choose the best response to each question.

1. What does the heading "A Growing Language" before paragraph 2 tell you about the text that follows?

   A. Emojis are helping people speak multiple languages.

   B. Emojis are helping the Unicode Consortium invent a new language.

   C. Emojis naming animals in many languages are needed.

   (D.) Emojis are a language that is expanding as more people use them.

2. Read this sentence from paragraph 3 of the text.

> Sloths are one of the slowest mammals on Earth, and the emoji would **represent** being tired, slow, or late.

What is the meaning of the word *represent*?

   (A.) show

   B. cause

   C. prevent

   D. encourage

3. What does the illustration on page 375 better help the reader understand?

   A. how certain emojis are created

   B. how people propose new emojis

   (C.) what the most popular emojis look like

   D. what the earliest emoji designs looked like

3 Reread/Think

- Have students complete the Reread/Think items independently.
- Consider reading aloud questions and answer choices. **EL**

Answer Analysis

Use the answer analysis below to review the practice items with students. Have students **Shout Out** the response to each question. Then review the correct answers. ✅

1. The correct choice is **D**. The heading "A Growing Language" suggests that emojis function as a language that grows as more people use them. Choices **A**, **B**, and **C** are not found in the text. **DOK 2**

2. The correct choice is **A**. The purpose of emojis is to communicate thoughts and feelings. Using a sloth emoji would not cause (**B**), prevent (**C**), or encourage (**D**) being tired, slow, or late. **DOK 2**

3. The correct choice is **C**. The illustration is titled "Top 5 Emojis" and shows what the most popular emojis look like. Choice **A** is incorrect because the illustration does not show how emojis are created. Choice **B** is incorrect because the illustration shows existing emojis, not proposals. Choice **D** is incorrect because the illustration does not indicate when the emojis were designed. **DOK 2**

4 Answer Analysis

4. The correct choice is **C**. This is the best choice because paragraph 4 tells how Alhumedhi proposed an emoji of a person wearing a headscarf. The other paragraphs do not mention Alhumedhi. **DOK 1**

5. The correct choice is **B**. The information about Guzman's college belongs in the sidebar because that feature is about Guzman and her contributions to emojis. Choice **A** is information that belongs in an introduction to the text. Choice **C** is information that best belongs in paragraph 2. The sidebar mentions Japan, but the information in choice **D** is not relevant to the rest of the sidebar. **DOK 2**
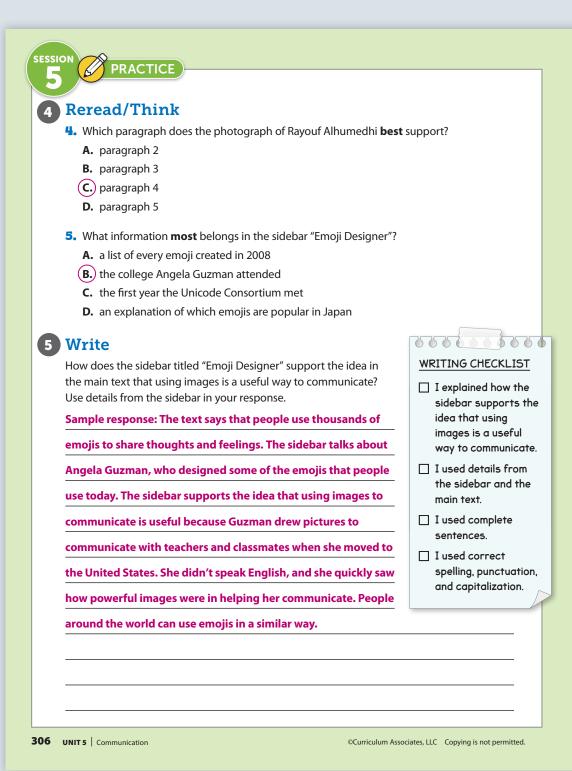
5 Write

- Have students respond independently to the Write prompt. **DOK 3**
- If students need more support, work with them in small groups to guide them through writing. Use **Help & Go** scaffolds as needed.
- **LOOK FOR** Students find and use details from the sidebar in their response.

> **HELP & GO: Writing**
>
> - Have students read the prompt carefully and skim and scan the text to find and circle information related to the question. Have them discuss their ideas before writing.
> - Focus students' attention on smaller chunks of text in both texts. **EL**

Lesson Wrap-Up

- Have students revisit the Focus Question using examples from the text. Record responses and display them next to previous ones.
- Invite students to **Stand and Share** connections between the texts they have read.

SESSION 5 🖊 **PRACTICE**

4 Reread/Think

4. Which paragraph does the photograph of Rayouf Alhumedhi **best** support?

- **A.** paragraph 2
- **B.** paragraph 3
- **(C.)** paragraph 4
- **D.** paragraph 5

5. What information **most** belongs in the sidebar "Emoji Designer"?

- **A.** a list of every emoji created in 2008
- **(B.)** the college Angela Guzman attended
- **C.** the first year the Unicode Consortium met
- **D.** an explanation of which emojis are popular in Japan

5 Write

How does the sidebar titled "Emoji Designer" support the idea in the main text that using images is a useful way to communicate? Use details from the sidebar in your response.

Sample response: The text says that people use thousands of emojis to share thoughts and feelings. The sidebar talks about Angela Guzman, who designed some of the emojis that people use today. The sidebar supports the idea that using images to communicate is useful because Guzman drew pictures to communicate with teachers and classmates when she moved to the United States. She didn't speak English, and she quickly saw how powerful images were in helping her communicate. People around the world can use emojis in a similar way.

WRITING CHECKLIST

- ☐ I explained how the sidebar supports the idea that using images is a useful way to communicate.
- ☐ I used details from the sidebar and the main text.
- ☐ I used complete sentences.
- ☐ I used correct spelling, punctuation, and capitalization.

Respond to the Focus Question

How have we improved communication over time?

1 Reread/Think   **Sample responses shown.**

Review all three texts in this lesson. Take notes in the chart.

	A Visual History of Communication	Live Wires	The Emoji: From Idea to Reality
What I learned	**We've been sending long-distance messages for hundreds of years.**	**Many telegraph operators were women.**	**The Unicode Consortium manages emojis.**
One thing that surprised me	**The cell phone was invented earlier than I realized.**	**Operators could identify who sent the message by the sound of the click.**	**A college student created a lot of emojis.**

2 Talk

With your classmates, discuss the following questions:

Based on what you have read, what do you think was the biggest change in communication?

How can communication still be improved?

What other emojis do you think are missing today?

3 Write

How can *you* improve communication today? Write a proposal for a new emoji or describe an improvement to communication. Explain why your idea would improve the way people communicate. Use evidence from at least one text in this lesson to support your response.

LESSON 16 | From Here to There **307**

Respond to the Focus Question

Read the Focus Question. Tell students that today they will answer the question using information from all three texts.

1 Reread/Think

Review "A Visual History of Communication," "Live Wires," and "The Emoji: From Idea to Reality." Have students skim each text and take notes in the first row of their charts. After each review, give students a moment to complete the second row of the chart.

2 Talk

- Divide the class into small groups. Have each group use **Merry-Go-Round Share** to answer the Talk questions.

- After groups have completed their work, reconvene as a class. Use **Somebody Who** to have one student from each group share responses from the group.

3 Write

- Introduce the Write activity. Instruct students to consider everything they have read, written, and talked about before they respond to the prompt.

- Have students share their ideas with a partner before writing. **EL**

- Have a few volunteers **Stand and Share** their responses.