LESSON TITLE
Emoji Essay
Guiding Question: How can we connect with each other?

Ignite Curiosity

- Could we use emoji to communicate with anyone, anywhere in the world?
- What would a piece of academic writing written in emoji look like?
- How well would a written language based on emoji communicate the writer's intention?

To communicate, the earliest people used images: cave drawings and hieroglyphics. In contemporary English and many other languages, we use letters, which are another form of images, to communicate with one another. Some contemporary languages, such as Mandarin, use pictograms as characters with which to communicate. Recently, we have seen the rise in popularity of emoji: digital pictures that help us communicate efficiently, regardless of the language the recipient speaks. In this lesson, students will read a short essay and translate it into emoji for a hypothetical foreign reader.

In THINK, students will act as linguists who consider how emoji can help or hinder communication and how they might be improved. In SOLVE, students will read a short essay and summarize it using emoji, abstracting information by reducing the complexity of the ideas in the essay so that it can be communicated using the pictorial language. In CREATE, students will use emoji to write a longer synopsis of the essay to communicate its details to a non-native English speaker. These synopses will serve as computational artifacts that could connect students to cultures beyond their own. In CONNECT, students will assess how the use of emoji can benefit society, from communicating across cultures to helping those with conditions such as aphasia, a neurological disorder that makes it challenging to speak and understand language. They will also consider related careers that could benefit from, and continue to develop, emoji as a method of communication.

Students will be able to:

- Identify how emoji are currently used and interpret their potential for future use,
- Construct a summary of a brief text using emoji, followed by a longer synopsis,
- and Evaluate the potential social benefits of using an emoji-based written system of communication.
Students act as linguists studying emoji as a new written language, evaluating the benefits and drawbacks of the system as it stands and making suggestions for how the system could be improved.

1. **Read** the following scenario to students:

   Imagine that you are a team of linguists working to develop a universal written language. To do this, you have started to study emoji as a potential “alphabet” with which to communicate. Before you can introduce the idea of emoji as a universal language to the world, though, you must answer these questions to guide your research into how to improve their use and effectiveness: What do emoji allow us to express? What do they not allow us to express? If you are successful, you could invent a way for any person on the planet to communicate with any other person efficiently and without stress. If you are unsuccessful, you may introduce a system that many people spend time learning but that ultimately does not help them communicate.

   Elicit from students a few of their favorite emoji. Where possible, draw these emoji on the board. Then, ask students to define what each emoji means, or has the potential to mean; anticipate multiple definitions for each emoji.

2. **Ask** students to consider an example sentence: “Today I walked to school in the rain and jumped over puddles.” Using the emoji on the board, elicit from students how adding each emoji to the sentence would change its meaning.

3. **Lead** students to consider the importance of finding a universal language. Ask:
   - Why would we want to create a universal language? (to learn more about other cultures; to pass ideas between cultures; to make the need for learning many other languages obsolete)
   - What would be difficult about creating a universal language? (Everyone would have to learn it; symbols and images may have different meanings for people from different cultures; different words have different meanings and connotations/associations in different cultures.)

4. **Distribute** the Emoji Library student handout to familiarize students with the specific emoji that already exist in common usage. Guide students through reviewing this document and the categories of emoji it contains. In pairs, students should discuss the following questions:
   - What are good aspects of the emoji library as it is?
   - What are some bad aspects of the emoji library as it is?
   - If we could change the emoji library to make it more effective, we would...

5. **When students have finished** discussing the questions about the emoji library, regroup as a class and discuss student responses. You may wish to incorporate changes students have suggested into the emoji library going forward. If you do so, creating an additional handout or keeping new emoji permanently listed on the board will be important.
Students will read a short essay and summarize the main points of the essay using 20 emoji or fewer.

1 **Distribute** copies of a short essay (300–500 words) from your subject area. Read the essay as a class.

2 **Invite** students to brainstorm with a partner responses to the following guiding questions:
   - What are the main points of the essay?
   - What words make it possible to describe the essay’s main point?

   Return to the larger group to discuss students’ responses to these questions.

3 **Guide** students to return to the Extrapolating Ideas student handout and invite students to work in pairs or small groups to complete Part I: Practice. Discuss students’ responses as a large group. Keep in mind that a variety of responses may be valid, given the nature of emoji.

4 **Instruct** students to complete Part II: Summary of the Extrapolating Ideas student handout individually. When students have completed the handout, have them share their results in pairs and then in small groups to compare summaries. Discuss with students the ways in which emoji are an efficient way of communicating. Elicit that they can express more complex emotions and thoughts in fewer characters and using less data than traditional writing. Point out that the use of emoji also makes communication across cultures more efficient by eliminating the need for translation. Clarify with students that the process of reducing the complexity of an idea by removing detail to make the idea more general is called **abstraction**. Abstraction uses the details of phenomena to make generalizations that allow a solution to work in a variety of scenarios. Abstraction is an important part of computing because it allows computers to process much larger amounts of data by abstracting and categorizing the data, rather than treating each piece of data individually. Have students identify ways in which they can use emoji to abstract information; students may suggest that emoji remove all extraneous details from a sentence, stripping it to its essential meaning, or that each emoji is in a sense its own “category” of word, from which readers can extrapolate a variety of meanings based on context.
Students will expand the emoji summary they wrote in Solve into a longer synopsis of the essay that a non-native English speaker could understand.

1 **Tell students** that they will now expand the summaries they wrote using emoji into full-length paragraphs using the Synopsis Student Handout. Explain that they will identify the key ideas from the passage before translating it using the Emoji Library Student Handout and any additions you made to it as a class. Instruct students that their translations should be clear enough that someone who doesn’t speak English could understand their meaning.

2 **When students have completed** their summaries, convene as a larger group to discuss students’ choices. Have students explain the emoji they chose to represent specific ideas and details, and elicit alternatives that other students used.

3 **Students should submit** Part II of their Synopsis Student Handout for evaluation.

4 **Summarize** with students that abstraction allows us to create efficiencies, saving time and effort. Ask students to share out answers to the following questions: How does using pictorial language, like emoji, reduce the complexity of ideas so they can be communicated simply and quickly? What are the benefits and drawbacks to communicating in emoji?
Students will assess how the use of emoji can benefit society, from communicating across cultures to helping those with conditions such as aphasia.

Select one of the strategies listed below to help students answer these questions:

- How do this problem and solution connect to me?
- How do this problem and solution connect to real-world careers?
- How do this problem and solution connect to our world?

1. Write the three questions on PowerPoint or flip chart slides and invite students to share out responses.

2. Display pieces of chart paper around the room, each with one question written on it. Ask students to write down their ideas related to the questions on each sheet.

3. Assign one of the questions to three different student groups to brainstorm or research, and then share out responses.

4. Invite students to write down responses to each question on a sticky note, and collect them to create an affinity diagram of ideas.

<table>
<thead>
<tr>
<th>How does this connect to students?</th>
<th>How does this connect to careers?</th>
<th>How does this connect to our world?</th>
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</thead>
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<tr>
<td>Students increasingly have access to their own smartphones, allowing them to text and message their peers. On many of these devices, a library of emoji allows students to pick specific images to express or qualify their ideas when communicating. Furthermore, the increasing use of emoji can help prevent misunderstandings between students: a sentence that could be misunderstood as sarcastic (such as “Great job in class!”) can be qualified with emoji that give it a variety of meanings, allowing the image to color the text in previously impossible ways.</td>
<td><strong>Graphic Designers</strong> may use emoji in their work to elicit immediately identifiable reactions from their audiences. They also continue to design new emoji, adding to the already vast library. <strong>Marketing Professionals</strong> can use emoji to express emotions they wish to associate with a brand, whether through social media or through advertising. <strong>Market Researchers</strong> working with human subjects may find emoji useful in gauging reactions to their products. <strong>Medical Professionals</strong> already use a set of emoji-like illustrations to have patients evaluate the level of pain they are feeling (the Wong-Baker Faces Pain Rating Scale).</td>
<td>Emoji developed to allow people to clarify meaning by communicating emotions along with text in an increasingly text-based and visual society. However, they have increasingly been used on their own, indicating that an emoji-based “alphabet” is not unthinkable—or even far off. Emoji have been applied to various social projects, including helping people who have medical conditions communicate. Further applications could be providing near-instantaneous feedback on projects (peer- or teacher-reviewed), breaking down language barriers, and improving quality of life for people who have difficulty speaking or communicating through other mediums. The Weemogee app was created by speech therapists to help people who suffer with aphasia. The therapists took 140 common phrases and translated them into emoji. The user with aphasia can select an emoji to communicate and the app will translate the emoji into a sentence.</td>
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National Standards

COMMON CORE STATE STANDARDS CONNECTIONS

CCSS.ELA-LITERACY.W
Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

CCSS.ELA-LITERACY.W
Draw evidence from literary or informational texts to support analysis, reflection, and research.

THE COLLEGE, CAREER, AND CIVIC LIFE (C3) FRAMEWORK FOR SOCIAL STUDIES STATE STANDARDS:
GUIDANCE FOR ENHANCING THE RIGOR OF K-12 CIVICS, ECONOMICS, GEOGRAPHY, AND HISTORY

Dimension 4, Communicating Conclusions
By the end of grade 8:
D4.3.6-8. Present adaptations of arguments and explanations on topics of interest to others to reach audiences and venues outside the classroom using print and oral technologies (e.g., posters, essays, letters, debates, speeches, reports, and maps) and digital technologies (e.g., Internet, social media, and digital documentary).

K-12 COMPUTER SCIENCE FRAMEWORK

Practice 5. Creating Computational Artifacts
The process of developing computational artifacts embraces both creative expression and the exploration of ideas to create prototypes and solve computational problems. Students create artifacts that are personally relevant or beneficial to their community and beyond. Computational artifacts can be created by combining and modifying existing artifacts or by developing new artifacts. Examples of computational artifacts include programs, simulations, visualizations, digital animations, robotic systems, and apps.
Review the attached library of emoji. What categories of emoji do you observe?

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Emotions</td>
<td>😊, 😂, 😨, 😐, 😔, 😂, 😍, 😢, 😎</td>
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<tr>
<td>Food</td>
<td>🍓, 🍏, 🍔, 🍕, 🍔, 🍎</td>
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<td>Nature</td>
<td>🌿, 🐾, 🐿, 🐮, 🐳, 🐳</td>
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<td>Animals</td>
<td>🐕, 🐶, 🐱, 🐳, 🐳, 🐴</td>
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<tr>
<td>Objects</td>
<td>🎉, 🎇, 🌋, 💥, 💡, 🎈</td>
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<tr>
<td>Miscellaneous</td>
<td>🟢, 🟢, 🟢, 🟢, 🟢, 🟢</td>
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Find more easy-to-implement resources to integrate computational thinking practices into your classroom by visiting ignitemyfutureinschool.org
Extrapolating Ideas
In this handout, you will first work to translate English sentences into emoji and emoji sequences into English sentences. Then, you will use emoji to summarize the main ideas of an essay by completing the table.

Part I: Practice
Translate the following ideas into sequences of emoji:

I was so tired this morning. __________________________________________________________

I love to play soccer. ______________________________________________________________

My little sister is so cute! ____________________________________________________________

Translate the following emoji sequences into English sentences:

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Part II: Summary
In one sentence, summarize the essay you read: __________________________________________________
_________________________________________________________________________________________

Fill out the following table to translate the most important concepts from your summary into emoji:

<table>
<thead>
<tr>
<th>Concept</th>
<th>Emoji</th>
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Using 20 emoji or fewer, summarize the main point of the essay you read:
Synopsis

On this handout, you will create a longer summary of the essay using emoji.

**Part I**
Write a one-paragraph synopsis of the essay that you read:

In the following table, list the most important ideas from your synopsis and provide possible emoji that could express these ideas:

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<th>Concept</th>
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**Part II**

Using exclusively emoji, summarize the essay that you read. Be sure to include all key ideas from the paragraph you wrote.