
LESSON PLAN:

Making Inferences

Learning Objective

Students will improve their understanding of a News article by learning to make valid inferences.

Pacing

45–60 minutes

Suggested Readings

“Found! Old Ship in Great Lake”
by Achieve3000

“Going Back Home” by Achieve3000

“Happy Birthday, ‘Yankee Doodle’”

See additional article recommendations in the Lesson Extensions.



■ Preparation

Lesson Overview

Students begin this lesson by making inferences about their partners based on artifacts that might be found in their rooms. You will use this activity to segue into a discussion of the definition of an inference with familiar examples. You then model making inferences with an article. Students then continue to practice making inferences using the same article. Students are given an opportunity for independent practice online with the 5-Step Literacy Routine.

Do Before Teaching

Be prepared to display the lesson masters you will be using based on the passages you have selected. The suggested readings in the sidebar lend themselves well to a social studies emphasis. For readings that would work well with a science emphasis, see the suggestions given in the Lesson Extensions.

1. Make copies of the lesson masters, enough for each student to have a copy of both the article and the Practice Inference Questions.

Teaching Routine

Before Reading

Introduce Lesson: Bell-Ringer Activity (5 minutes)

- Display the following Quick Write prompt so that students can see it as they enter the room and begin working on the task immediately: *List five things that can be found in your bedroom.* Once everyone has finished making their lists, have students trade lists with a partner, but without discussing them. Tell the students to think about what is on their partner's list of artifacts and what it says about the list-maker. Ask for a few volunteers to share their partner's list and what they have learned about their partner from the list. What supports their guesses? Then ask partner #1 whether partner #2's inferences are accurate.
- Other ideas for introducing this lesson are given in the Lesson Extensions.

Extra Support

For ELL students, translate the prompt into their home languages.

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For ELL students, explain that “read between the lines” and “put two and two together” are idioms, or phrases, that have meanings that may not be obvious based on the meanings of the words. To “read between the lines” means to try to understand a hidden, rather than openly stated, meaning. To “put two and two together” means to put together pieces of available information to figure something out, as when we add $2 + 2$ to get an answer of 4.

Extra Support

Connect making inferences to the ELL's everyday experiences. When someone is just learning English, they are forced to make inferences every day. They make guesses about what someone is saying based on incomplete information: the few English words they do know, plus the context of the conversation, the gestures and body language of the speaker, and so on.

Provide Direct Instruction and Modeling (5–10 minutes)

- Tell students that when they make a guess based on incomplete information, they are making an inference. For example, when we see someone yawning, we can infer that they are tired. When we make inferences, we “read between the lines” and guess about what is not known, based on what is known. We “put two and two together” to figure out something that isn't stated.
- Explain that good inferences are based on strong evidence, hints, or clues. For example, you can say you think the reason that a certain person is tired is that he or she stayed up all night playing video games, but do you have any evidence of that? Did that person mention playing video games last night? Does he or she have a video game habit that is getting out of hand? Has this person stayed up all night playing video games before? If the person in question doesn't even own any video game equipment, your inference is not likely to be a sound one.

Extra Support

- Preteach difficult vocabulary, idioms, and figurative language as needed, based on the proficiency levels of your students.
- Provide ELLs with a summary of the article in their home languages.
 - Allow ELL students to refer to a bilingual dictionary as they work.
 - Allow ELL students who are at lower proficiency levels to take extra time to complete the tasks.
 - Allow ELL students to work in groups with more proficient English learners, particularly those who share their home language.
- Display “Found! Old Ship in Great Lake” or “Going Back Home.” (For a science emphasis, see article suggestions and ideas in the extensions.) Distribute copies of the article to students. Read the article aloud as students follow along.
- If using “Found! Old Ship in Great Lake,” go to the fourth paragraph and highlight this line:
“Three years later, they began a new search for the HMS Ontario.”
- Ask students, “Why do you think Kennard and Scoville launched a new search for the ship? What evidence in the article supports your answer?” Underline the evidence in the article as students identify it.
- If using “Going Back Home,” go to the third paragraph and highlight these lines:
“There was a part of me that wasn’t right,” Bia said.
And so she made the difficult decision to return to her homeland.
- Ask students, “What was not right for Bia? What evidence in the article supports your answer?” Underline the evidence in the article as students identify it.

Small-Group Practice (10–15 minutes)

- Provide students with copies of the Practice Inference Questions related to the article you chose (see Lesson Masters). Allow students to work together in groups to answer the questions based on “Found! Old Ship in Great Lake” or “Going Back Home.” After most have finished with the questions, go over their answers in a whole-class discussion.

Extra Support

- While most of the class is engaged with their article and the 5-Step Literacy Routine, you may wish to provide additional small-group or individualized instruction based on student needs and your own instructional goals. Such instruction could include reteaching the lesson strategy by presenting it in a different way or working on a particular state standard or skill. The reports in the Admin section of the online Teacher's Edition will provide the data you need to make those types of instructional decisions. We recommend that you never work with small groups larger than five students. Preteach difficult vocabulary, idioms, and figurative language as needed, based on the proficiency levels of your students.
- Provide ELLs with a summary of the article in their home languages to read prior to starting step 2 of the Literacy Routine.
 - Allow ELL students to refer to a bilingual dictionary as they work through the 5-Step process and encourage them to use the dictionary below the article.
 - Allow ELL students who are at lower proficiency levels to take extra time to complete the tasks.

During Reading

Student Practice (15–25 minutes)

- Next, have students apply their learning to the 5-Step Literacy Routine with “Happy Birthday, ‘Yankee Doodle’” or any other Achieve3000 article that lends itself to making inferences. (For a science emphasis, see article suggestions and ideas in the extensions.)

The 5-Step Literacy Routine

Students begin the routine by voting in a Poll. This allows them to access their prior knowledge and share their opinions about the topic of the day.

1. **Email** — Brings students' prior knowledge into the classroom as they make connections and express opinions about the topic of the day.
2. **Article** — Students derive information from nonfiction articles differentiated to their levels. Repeated exposure to vocabulary and embedded strategy support enables all students to participate in classroom discussions. Access to grade-level text and activities ensure that students have frequent interactions with grade-appropriate complex text.
3. **Activity** — Students demonstrate successful close reading of text by responding to text-dependent questions that require higher-order thinking skills.
4. **Poll** — All students express their opinions again, based on the reading they did that day, with teachers requiring students to provide evidence for their opinions. Teachers then facilitate discussion and debates in the classroom.
5. **Thought Question** — A critical-thinking activity guides students to write in more formal scenarios with the intent to either argue or inform about a situation or narrate an event.

After mastering the concepts at reading-level, students have the opportunity to complete the same Article and Activity at grade level. They can also review their Poll results from both before and after reading and reflect on how their readings and experiences affect the evolution of their opinions.

After Reading

Whole-Class Wrap Up (5–10 minutes)

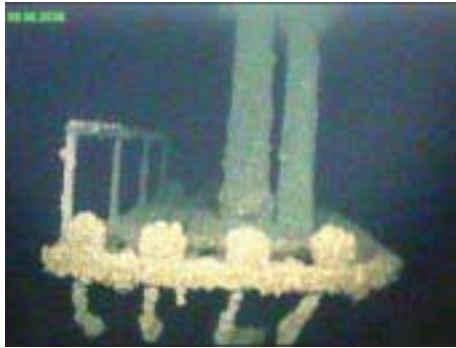
- When all students have completed the 5-Step Literacy Routine (or at least the first two steps), bring the class together to review the lesson, discuss any questions students have, and provide any necessary reteaching.
- Have students enter new vocabulary in their vocabulary journals (*infer, inference*) and indicate their level of understanding for each of the new terms learned in this lesson.

■ Lesson Extensions

- Here are more ways you could introduce this lesson:
 - Invite a volunteer to come forward and share three to five things (artifacts) that are in his or her pocket or purse, then allow the class to make inferences about the volunteer. Or you can share five artifacts from your home — i.e., a favorite CD, a food item, a vet bill, and so on — and allow students to make inferences about you.
 - Play a round of “Guess the Mystery Object.” Invite a volunteer to come forward. Give the volunteer a cloth bag (a pillowcase works well) tied closed with an object in it (such as an empty stapler). Tell the student that she must feel the object from outside the bag and try to guess what the object is. Ask the student what evidence supports her answer. Then reveal the object. Place another object in the bag in a manner that the class cannot see what the object is. Invite another student forward to guess what the object is. Do a total of three rounds of this game.
 - Do a “getting to know you” mime activity. Ask students to learn three things about their partner, but without using language. They can use gestures, sounds, and other methods for getting to know their partner, but not words. Then, one at a time, ask a few of the students to report out to the class about what they learned about their partner. Then ask the second partner if the first partner was correct. Have a few pairs of the students report out, then ask everyone to return to their seats. Point out that the students were able to learn a great deal about each other without using language. These guesses based on limited information are inferences.
- For a science emphasis, conduct this lesson using “What’s Best for the Elephants?” by Achieve3000 for the teacher model and use “Duke’s New Discovery?” by Achieve3000 for the independent reading. Lesson masters for “What’s Best for Elephants?” are provided at the end of this document.
- Photocopy comic strips from the newspaper. White out the dialogue. Have students work together in small groups to decide what they think is going on in the comic strip. Have them report out to the class what they decided and what about the images led them to their decision. Or have them write their own dialogue for the strips. The dialogue should match well with the images, and the students should be able to support why the words and images go together. After all groups have shared their work, show the students the original strips and have them compare their dialogue with the original.

Lesson Masters

Found! Old Ship in Great Lake



ROCHESTER, New York (Achieve3000, June 14, 2008). A British warship has been discovered at the bottom of Lake Ontario, one of the five Great Lakes. Although the vessel sank during the American Revolution, it's in astonishingly good condition.

The warship was named the HMS Ontario. It went down during a strong storm on October 31, 1780. This was only five months after its launch.

After the ship disappeared, the British conducted an extensive but secretive search. They hoped to keep news of their serious loss a secret from General George Washington's American troops. It wasn't long, however, before signs of the ship's misfortune began to surface. The day after the sinking, several compasses and numerous hats and blankets drifted ashore. A few days later, the sloop's sails were found drifting in the lake. Since then, there has been very little sign of the ship—until now.

This month's discovery of the HMS Ontario ended a lengthy search by shipwreck experts Jim Kennard and Dan Scoville. Kennard began searching for the Ontario 35 years ago. However, he gave up his effort after several disappointing and unsuccessful years. Six years ago, Kennard teamed up with Scoville, a diver. The two located several other ships in the Great Lakes. Three years later, they began a new search for the HMS Ontario.

The two explorers used advanced equipment to locate the shipwreck. One device they used was an unmanned submersible, developed by Scoville. The team also used a special sonar device.

The HMS Ontario was a particularly outstanding find. According to shipwreck experts, it's the oldest shipwreck ever found in the Great Lakes. It's also the only British warship ever found there in one piece, they say.

"Certainly it is one of the earliest discovered shipwrecks, if not the earliest," said Carrie Sowden. Sowden is the archaeological manager of the Peachman Lake Erie Shipwreck Research Center. "And if it's in the condition they say," Sowden added, "it's quite [important]."

According to Kennard and Scoville, the warship is in excellent condition for a shipwreck. "Usually when ships go down in big storms, they get beat up quite a bit," Scoville said. "This went down in a huge storm, and it still managed to stay [together]."

The shipwreck has been remarkably well preserved. This is due to Lake Ontario's dark, cold fresh water. The wreckage is located so deep—about 500 feet down—that there is no light and no oxygen to hasten decomposition. There is also very little marine life to feed on the wood.

A Canadian writer named Arthur Britton Smith related the history of the HMS Ontario in his 1997 book *The Legend of the Lake*. He was shown underwater video of the find.

"If it wasn't for the zebra mussels [covering the shipwreck], she looks like she only sunk last week," Smith said of the historic ship. "It's an archaeological miracle," he added.

Kennard and Scoville said they regard the shipwreck as a war grave. The Ontario sunk carrying as many as 130 people. Scoville and Kennard have no plans to raise the ship. Nor do they plan to remove any of its artifacts—including its two cannons, two anchors, and the ship's bell. Using the remote-controlled submersible, the two have gathered over 80 minutes of underwater video. Now, they do not consider it necessary even to return to the site.

The HMS Ontario is one of an estimated 4,700 shipwrecks submerged in the depths of the Great Lakes. This includes about 500 in Lake Ontario alone. The warship is still considered the property of the British Royal Navy.

Practice Inference Questions for “Found! Old Ship in Great Lake”

1. If archaeology is the study of human history through the excavation of sites and the analysis of artifacts, what does it mean that this ship is “an archeological miracle”? What evidence in the article supports your answer?

2. Kennard and Scoville said they regard the shipwreck as a war grave. What did they mean by this? What evidence in the article supports your answer?

3. The article says that Kennard and Scoville do not consider it necessary to return to the site. Why not? What evidence in the article supports your answer?

Going Back Home



RED MESA, Arizona (Achieve3000, July 21, 2007).

Although she grew up as a Diné, the term Navajo members use to describe their nation, young Andrethia Bia measured her success according to Western standards. As a child, Bia was raised in a traditional manner and spent most of her time with her late grandmother, Mary Kitseally, helping her with her sheep and watching her weave. Bia's childhood was filled with listening to Diné ideas about life. She grew up speaking Navajo.

During high school, Bia was active in school activities, including athletics and the student council. She even served as student council vice president. At 18, she accepted a scholarship to the College of Eastern Utah in Blanding. Bia went on to study and work in Utah and Arizona, and taught at the Salt River reservation. She continued to surround herself with other members of her community, even as she worked and raised her two sons. Then, a vague uneasiness kept bothering her. She longed to know more about her culture.

"There was a part of me that wasn't right," Bia said. And so she made the difficult decision to return to her homeland. Bia's decision runs counter to U.S. trends, which have seen the population of the Navajo nation decline. Many young people are seeking opportunities elsewhere. If this trend continues, by 2012 about half of the Navajo people will live outside of the Navajo nation.

Bia has since returned to her homeland. She is learning Navajo skills such as weaving. She also began classes at Diné College. She is working toward a degree in elementary education. Diné College is the first college in the country established by Native Americans for Native American education.

One night, Bia dreamed that she hugged her grandmother, then in a nursing home, and talked to her in the Navajo language. Bia shared the dream with her mother and with her weaving teacher. They told her to visit her grandmother and tell the woman about the dream. Bia took their advice. "The reason I came to [you] is because I am waiting for your rug," Bia's grandmother said. The elder woman explained that her journey to the next world would only continue after the rug was completed. Initially, Bia did not want to finish the project. She feared that her grandmother would die once the rug was finished. But a month later, Bia completed the rug. Soon after, Bia's grandmother died.

Thinking back, Bia admits she once felt her Navajo culture held little importance. Now, the best parts of her busy day are the moments she spends with the elders and her children.

"They [elders] want somebody around them to share their [beliefs and ideas] with them," Bia said. "I'm not embarrassed to say I started [learning] last year. You're never too old, and it's never too late."

The Associated Press contributed to this story.

Practice Inference Question for “Going Back Home”

What is the meaning of Bia’s dream? What evidence in the article supports your answer?

What's Best for the Elephants



WASHINGTON, D.C. (Achieve3000, January 14, 2009). Zoo elephants don't live as long as elephants in the wild. A new study compared the average life spans of Asian and African elephants. Some were in European zoos and some were living in the wild or working for humans. Scientists found that the wild or working animals lived at least twice as long as their relatives in zoos.

The study compared the life spans of Asian elephants living in European zoos with the life spans of Asian elephants working in Myanmar timber companies. Researchers found that the median life span for the zoo elephants was 18.9 years. In other words, half of the elephants died younger than that age and half lived longer. The median life span for the elephants working in the timber industry was 41.7 years.

The study also looked at the life spans of African elephants living in European zoos. Those were compared with the life spans of African elephants living in a wildlife reserve in Kenya. The median life span for the zoo elephants was 16.9 years. The median life span for elephants in the reserve was 56 years.

Why would zoo elephants have shorter life spans than the wild elephants? Georgia J. Mason, one of the study's authors, speculated on some reasons. She noted that it is difficult for zoos to reproduce natural habitats. Zoos don't usually have large grazing areas. Also, zoo elephants often live alone or with one or two unrelated animals. In the wild, they live in related groups of 8 to 12 animals.

Some people believe Mason shouldn't criticize zoos. Steven Feldman, with the Association of Zoos and Aquariums, believes this. He pointed out that the report did not study North American zoos. Feldman said it is hard to compare conditions in zoos and in the wild. "Every event in a zoo is observed," Feldman said. Only a small number of events in nature are observed.

Paul Boyle, also with the Association of Zoos and Aquariums, says Mason's study was unfair. The study used zoo data going back to 1960. Zoo conditions are a lot better now. Zoo officials know more about animal behavior, diets, and medical needs.

Critics also say that the two non-zoo populations studied are special. One group lives in a protected animal reserve. The other lives at a timber company with caretakers. Elephants outside these areas face threats to their survival. They are hunted. Their habitat is being destroyed. All this affects their life spans. There are only about 30,000 Asian elephants in the wild. Twenty-five years ago there were about 200,000. The number of African elephants is also declining.

Mason agrees that the life spans of zoo elephants have improved. But she still believes that protected wild and working elephants are better off than zoo elephants. Mason says zoos need to figure out how their elephants can live long and healthy lives.

The Associated Press contributed to this story.

