Support Inferences with Evidence

7.5(F)	Make inferences and use evidence to support understanding.
7.6(C)	Use text evidence to support an appropriate response.
7.6(I)	Reflect on and adjust responses as new evidence is presented.

Introduction

Real-World Connection

Jamie's assignment for class is to read two articles on a topic of her choice, and report back to her class about what inferences she can make about each text. She chooses to read two articles about Yellowstone National Park. While reading the articles, she notices that while most of the information agrees, the focus of each article is different. She wonders what inferences she can make based on the differences in each article. How can Jamie figure out which inferences are valid and what evidence will support her inferences? We will practice the skills in Guided Instruction and Independent Practice. Then, at the end of the lesson, we will revisit Jamie's inferences.

Words to Know
inference
evidence
infer
prediction
understanding

What I Am Going to Learn

- Make inferences based on the text.

- Use text evidence to support responses.

- Adjust responses as new evidence is presented.

What I May Already Know 6.5(F), 6.6(C), 6.6(I)

- I know and understand how to infer.

- I know how to identify evidence that supports an idea.

- I know how to adjust my response based on new evidence I find.

Think About It

To make inferences, use the strategy "It Says . . . I Say . . . And So." In a three-column chart under the heading "It Says," write evidence from the text. Under "I Say," add your own knowledge and experience. Under "And So," write the inference you draw by connecting the two columns.

Understand the TEKS

These vocabulary words will help you understand the TEKS.

An **inference** is an educated, or intelligent, guess. It is a decision you reach after examining the **evidence**, the statements in the text that support your inference. When you **infer**, you read between the lines to find the meaning that lies just below the surface.

The author of an article or a story does not tell you absolutely everything. You have to fill in the gaps. To do this, you think about what you have read. Then you connect this information to what you know from life and experience and from other reading.

Information from text + What I know = Inference

For example, read the passage below.

> Hector had not seen Kevin for almost two years. Now Kevin and his family had moved back to town, and Kevin was going to be in Hector's class.
>
> Hector and Kevin had played on the same softball team at Lee Elementary. He remembered how Kevin used to taunt him when he went up to pitch. "You throw like a baby," Kevin would say, a smirk filling his face. "Can't you get any power in it?" It got so bad Hector dropped out of the team. He kept playing though with his friends and in pick-up games in the neighborhood, and he thought he had become pretty good.
>
> So good in fact that Hector had planned to try out for the school team this year. He had dreams of hitting home runs and winning games for Johnson Middle School. *I'll be a hero*, he thought. Now he wasn't so sure. His friend Billy had just called to say that the latest news was that Kevin was trying out for the team, too. Of course, Kevin's getting on the team was a sure thing.
>
> *Another dream down the drain,* he thought. *And it's all Kevin's fault.*

The author does not tell you directly how Hector feels about Kevin returning to his school, but look at the clues.

- Kevin used to taunt him when he played softball.

- Hector had dropped out of the team.

- They are trying out for the same team.

- Hector thinks his dreams of winning for the team are crushed.

Now put yourself in Hector's shoes. Think about how you would feel in his place.

- Make an inference. How does Hector feel about Kevin returning to his school? Why?

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A **prediction** is a type of inference. When you make a prediction, you make an educated guess about something that will happen in the future.

You make predictions all the time in real life as well as in reading. If the sky is full of clouds and you say, "I think it's going to rain," you have made a prediction. This inference is based on examining clues (the clouds in the sky) and combining them with your own knowledge (that clouds produce rain).

When you draw a conclusion, you arrive at an **understanding**, you know something, based on the facts at hand. Drawing a conclusion looks like this.

Detail + Detail + Detail = Conclusion

For example, suppose a father and his daughter are shopping for paint together. They are going to paint the daughter's room. The daughter rejects every paint chip the father shows her, but when she sees the peach one, she smiles. When she tells her father that she does not care—that he should pick the color—he concludes that she really does not mean what she is saying. She wants her room painted peach.

Suppose you read that eating good food and staying away from junk food has been shown to keep people healthy. You also read that exercising at least twenty minutes a day is a good way to keep in shape. You want to get ready for the soccer team tryouts.

• What do you conclude you should do?

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Evidence

The more evidence you use, the more likely your inference is valid, or sound. Evidence from the text can consist of —

• facts

• details

• examples

• quotations

When you provide evidence to back up your inference, you put it in your own words unless it is a direct quote. You put a direct quote in quotation marks.

New Evidence

After making an inference, you may find new evidence in the text. You must then evaluate the new evidence and adjust your earlier inference as needed.

 Measuring Up to the Texas Essential Knowledge and Skills

Guided Instruction

Read the passage below. Then answer the questions in the margin and complete the activities.

A Titanic Mystery

by Paula Murphey

1   It was the biggest ship in the world. When RMS Titanic set sail on April 10, 1912, it was the largest moving object ever made by man.

2   *Titanic* weighed more than 46,000 tons and measured nearly 883 feet long, more than two football fields. It featured many modern luxuries: electric lighting, elevators, gym equipment, a heated saltwater swimming pool and lavish first-class accommodations. *Titanic's* engineering and design was so technologically advanced, its builders and owners declared it to be "practically unsinkable."

3   But in the early hours of April 15, 1912, *Titanic* sank to the bottom of the Atlantic Ocean after striking an iceberg. **Ⓐ** Of the 2,223 people onboard, 1,517 died.

4   *Titanic* came to rest more than two miles below the surface. Because the wreck was in such deep water and the last reported position of the ship in 1912 wasn't exact, its location was a mystery for 73 years.

5   The "detective" who solved this mystery was scientist Dr. Robert Ballard and his team from the Woods Hole Oceanographic Institution. Over the years, many other searchers had failed to find the *Titanic* wreck.

Guided Questions

Highlight the sentence in paragraph 2 that tells why people thought the *Titanic* was unsinkable.

Read sentence **Ⓐ** in paragraph 3. Put it together with the information in paragraph 2. Infer why so many people died.

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Read paragraphs 5–7. In your own words, explain why Ballard was able to solve the mystery.

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6   The secret to Ballard's success?

7   "Coming up with a better way, a better mousetrap," Ballard says.

8   Other attempts had been made with side-scan sonar. With this method, searchers tow a special instrument along the ocean floor that sends out sound signals that are reflected by nearby objects. Because the deep sea is pitch dark, hunting with "ears" instead of "eyes" seems to make sense.

9   Ballard says this method is "like mowing [with sound], moving back and forth, cutting every blade of grass. The width of this lawnmower was about 1,000 meters. The problem was that the search area was huge: between 100 and 150 square nautical miles. It turned out that *Titanic* was at the very edge of that area, and they had been mowing the middle."

10   Ballard's "better mousetrap" involved covering more area faster and searching for a trail of debris. Here's what he was thinking:

11   Eyewitnesses said *Titanic* broke apart as it sank. So instead of the wreck dropping straight down and forming a circle of debris on the ocean floor, as items emptied out of the ship, the heavy material would drop straight down and the lighter debris would be carried farther away by the current. The result would be a debris trail along the ocean bottom. That is what Ballard figured he should search for.

12   "It was as if I wanted to take a picture of a deer," he explains. "I wouldn't look for the deer because it would be hiding from me. I would look for its footprints and follow them to the deer. The trail of debris would be the footprints leading me to the *Titanic*."

13   With his oceanographer skills and reports from the time of *Titanic*'s sinking, Ballard calculated the current's direction and speed. The numbers showed there should be a debris trail one mile long, running north-south.

14   Using the video-camera system Argo, which was outfitted with lights and towed along the ocean floor, Ballard searched in lines running east-west and spaced one mile apart. He thought that at some point, his search line would cross the north-south debris trail.

15   "Instead of mowing the lawn for every blade of grass . . . I could cover a lot of ground rapidly," Ballard says. "That was the key."

16   On Sept. 1, 1985, Argo discovered the debris trail, and Ballard followed it to the *Titanic* wreck just as he thought he would.

Guided Questions

Read paragraphs 8–10. Highlight the sentence that explains why Ballard concludes he needs to cover more area faster.

Read paragraph 10. Think about the purpose of this lesson. How do you think paragraphs 11–15 connect with that purpose?

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17 It's always cool when someone is successful by coming up with a better way of doing something. But what was really cool about Ballard's method is that he figured it out while on a top-secret mission for the U.S. Navy.

Secret Mission

18 Ballard's search for *Titanic* was actually a cover story for a secret naval operation: to map and gather data on the wrecks of two U.S. nuclear submarines—the USS *Thresher* and USS *Scorpion*—that sank during the 1960s. The Navy was interested in knowing how radioactivity from the subs' nuclear weapons and reactors was affecting the environment.

19 It was important to keep this mission a secret because in 1985 the U.S. was still involved in the Cold War, a period of time from 1946 to 1991 when relations between the U.S. and the Soviet Union were very tense. The Navy didn't want the Soviets to follow Ballard's ship via satellite and discover where these subs were located. If they found the subs, they could learn U.S. nuclear technology secrets.

20 The cover story of Ballard's *Titanic* hunt was believable because the subs are located in the general area of *Titanic's* last reported position. Navy officials told Ballard that after he found the subs and photographed their wreckage, he could then search for *Titanic*.

A Learning Experience

21 It was fortunate that Ballard was sent to work with the subs' wreckage first. The mission proved to be a valuable learning experience.

22 "These submarines imploded on their way down, thousands of feet above the ocean bottom," Ballard says. "The *Scorpion* ended up in about 11,500 feet of water and the *Thresher* in about 8,000 feet. So imagine these submarines going off like bombs and all of the stuff raining down onto the bottom of the ocean."

23 When Ballard began mapping the subs' wreckage sites, he discovered the debris trails they left. He later applied this knowledge to his search for *Titanic*. The rest is history.

24 "I don't think that the Pentagon expected me to find the *Titanic*. When I did, they were a little nervous that the cover story would be blown," Ballard says. "But it actually wasn't blown, and then a few years back they chose to declassify the story."

Guided Questions

Read paragraph 17. What will the rest of this article discuss?

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Read paragraph 18. What inference do you make about the location of these two submarines?

_____

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Read paragraphs 19–20. Highlight the sentence that helps you check your inference.

Read paragraphs 21–22. Highlight the sentences that support the conclusion that Ballard's secret mission may have helped him find the *Titanic* wreckage.

Read paragraph 24. Based on what you learned earlier, why do you think the government chose to let the story become public?

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_____

25 In 1989, Ballard applied this same debris-trail method to find the wreck of another famous ship, the German battleship *Bismarck.* The technique also helped him discover a number of ancient shipwrecks over the years.

26 As for his most famous discovery, the last time Ballard visited *Titanic* was in 2004.

27 "I wanted to go back out and see what has happened to it in almost 20 years," Ballard says.

28 He discovered that the wreck had suffered a lot of damage.

29 "Most of the damage was by submarines used by filmmakers and salvagers," he says. "Most of it was human-induced damage, not natural damage."

Guided Questions

Critical Thinking

1. Look at the front page of the newspaper. How important do you think the story of the *Titanic*'s sinking was considered at the time? Why?

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_____

2. Make a connection to the real world. Do you think this estimation of the story's importance holds today? Why or why not?

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3. Read the newspaper headline. Then reread paragraph 3. Why do you think the information given is different?

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_____

4. Why do you think Ballard took on the secret mission to find the *Thresher* and *Scorpion*?

_____

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_____

How did he use what he learned to achieve his own goals?

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5. Work with a partner. Discuss what you learned about problem solving from the way Ballard went about finding the *Titanic*. Add to the discussion what you know and think based on your own experience as well as information from other texts you have read or seen. Then develop a set of guidelines for effective problem solving. Create a poster to display your guidelines.

How Am I Doing?

★ What questions do you have?

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_____

_____

_____

★ What inferences did you find easy to make? Which pieces of evidence guided you?

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_____

_____

★ Fill in the circle that shows how you are doing with the skill.

◯ I am stuck.   ◯ I almost have it.   ◯ I understand the skill.
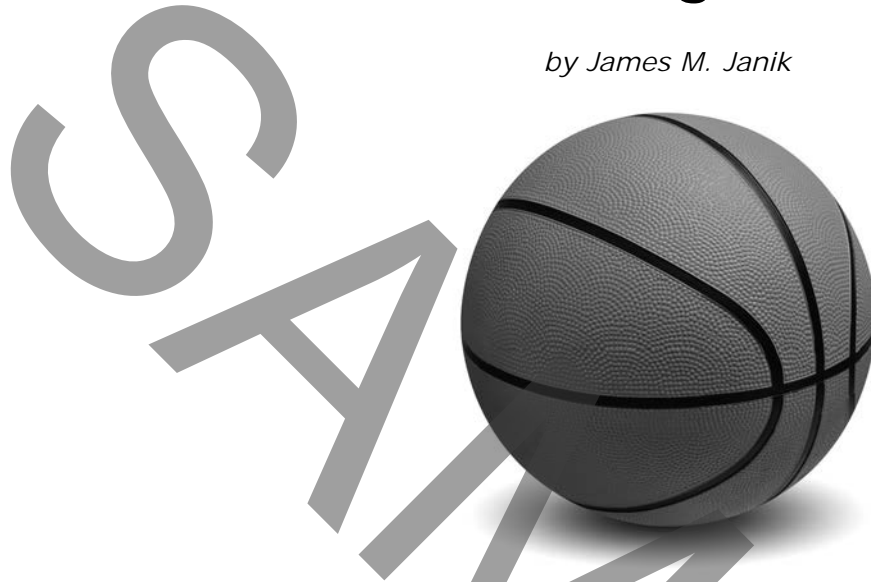
Independent Practice

★ Practice

Read the selection and choose the best answer to each question.

Silencing Stork

by James M. Janik

1   "Come on, short stuff. Get in my face." Stork dribbled the basketball, edging his hip into me one step at a time. With each bounce, he nudged me closer to the hoop.

2   "You can quit the talk, Stork," I answered. "Just shoot the ball."

3   Stork beat me at one-on-one every morning, needling me the whole time. I was sick of it.

4   "I'm coming, Shorty," he said, backing into me. "Watch yourself, now. Here it comes."

5   I pressed my elbow hard against his hip. I leaned forward on the balls of my feet, shadowing his every movement. Stork was as quick as lightning and just as flashy. The only way to silence him was to beat him. Today was as good a day as any to try.

6   He glanced over his right shoulder. Then, after one last high dribble, he cut hard to my left. He dipped and passed me before I could recover. An easy lay-up.

7   "Man, you won't ever catch me that way," he said. "You've got to know my moves. You've got to see me coming."

8   "Yeah, I know, Stork. You remind me every time you beat me to the hole."

9   "Well, the truth isn't always pretty."

10   Stork had one full year and at least five inches on me. And he was good. He played in a regular league. I hadn't made the team.

11   He tossed the basketball at my chest, and it thumped me good and hard. "Your ball, man," he said. "Let's see what you've got today."

12   I dribbled the ball at the half-court line. I stared into Stork's eyes, trying to read his mind. *He always goes for the steal*, I thought. *He doesn't have patience. Wait for the chance.*

13   Stork jabbed in with his right hand. I cross-dribbled between my legs and drove hard. I had the step and took the ball to the hoop for a quick, left-handed lay-up. The score was even. That stopped the talk, temporarily.

14   Most guys avoid working their weak side. Not me. I'd practiced my left-handed lay-ups every day since getting cut at the league tryouts. "Your ball, Stork. Guess you'd better learn my moves, too."

15   "Your moves? Give me a break," Stork groaned. He took the ball two steps to his right and popped up for a quick jumper from the free-throw line. Nothing but net. He was up by a basket again. I had to find a way to stop him.

16   My ball. I dribbled with my back against him, planning to crowd him into the post beneath the basket. Stork darted in from my left and tapped the ball away. Posting wouldn't work—his arms were just too long. He was always reaching in with that quick right hand.

17   Stork bounced the ball high, showboating at the top of the key. "Come on, little man," he taunted. "Come and get me."

18   So I did. I lunged at the ball, but Stork did a quick spin move and drove to his right for the hoop. "Man, this isn't even a challenge," he said. "Do you ever dream about stopping me?"

19   "Give me the ball, Stork. If you could shoot half as well as you talk, you'd only be one-third as good as you think you are."

20   He flipped the ball at me with a grin. "Come on, now. Make up your mind," he said. "Are you playing? Or are you just going to let me whip you again? Maybe you want me to teach you some solid moves?"

21   I drove straight down the right side of the lane. No fakes, no fancy stuff—straight at Stork's left side. He tripped over his feet moving backward to his left. Easy basket for me. "Your ball, big man," I said.

22   Stork dribbled high again. He faked left but pulled up. He dribbled with his left hand and smirked. He wanted to draw me to his weak side with the fake. No way. I'd already fallen for that one. He head-faked left again, then drove hard to his right.

23   I was waiting for him. One quick jab and the ball was mine. A clean steal. Could it be that easy? Did he ever work on his weak side?

24   My ball. I faked right and dribbled left. I pulled up for a fade-away jumper from ten feet. The ball bounced in and out.

25   Stork grabbed the rebound. "It's over now, baby. It's all over," he jeered from midcourt.

26   I crouched low on the balls of my feet. It was time to test my theory. Time to see if this big guy could do anything else but go to his right.

27   I shifted to my left, cutting off Stork's right-hand lane. His left lane was wide open. Could he do it? Would he drive to his weak side?

28   Stork looked confused by my stance. He cross-dribbled to his left hand. He feinted once left.

29   I didn't go for it.

30   He took a quick step left and pulled up.

31   Again, I didn't take the bait.

32   Then he dribbled straight up, searching my face. He spun and tried to drive around me to his right side.

33   I was all over him, cutting off his lane, forcing him to his left. He couldn't do it. He wouldn't do it. He plowed right into me. I staggered onto my back, taking the charging foul.

34   Stork was silent as I rose to my feet.

35   I took the ball at midcourt and grinned. Stork couldn't drive left. He had five inches and one year on me, but now I had something on him.

36   I had a chance.

1   Which statement in paragraphs 1 through 4 best supports why Stork might be taunting the other player?

   A   He craves the respect of the other player.

   B   He knows that he is the star player on the team.

   C   He wants to intimidate the other player so that he plays badly.

   D   His teasing the other player makes Stork feel important.

2   Based on the narrator's reaction to being taunted, the reader can infer —

   F   he is determined to improve his game

   G   he is concerned that Stork will hurt him

   H   he is resilient and has confidence in himself

   J   he is afraid of Stork and wants to quit basketball

3   Read paragraph 12 from the story. Which inference can be made about the narrator's next move?

   A   Stork lacks patience giving the narrator a chance to shoot.

   B   Stork's actions are predictable allowing the narrator to be able to get by him.

   C   Stork is surprised by the narrator's stare so the narrator knows what Stork is planning.

   D   Stork will leave an opening for the narrator to shoot because he is always trying to steal the ball.

4   Which choice from paragraph 33 best demonstrates why Stork cannot make the shot?

   F   *I was all over him, cutting off his lane, forcing him to his left.*

   G   *He couldn't do it. He wouldn't do it.*

   H   *He plowed right into me.*

   J   *I staggered onto my back, taking the charging foul.*

5   After reading paragraph 32 through 36, the reader should reflect on which statement to adjust his or her understanding?

   A   *Then he dribbled straight up, searching my face.*

   B   *I was all over him, cutting off his lane, forcing him to his left.*

   C   *Stork was silent as I rose to my feet.*

   D   *He had five inches and one year on me, but now I had something on him.*

★ Assessment

Choose the best answer to each question.

1 What effect do Stork's taunts have on the narrator?

A He plays even harder to win.

B He decides to learn new moves.

C He wants to copy how Stork plays.

D He realizes that he will never be the star.

2 Which sentence from paragraphs 1 through 5 illustrates Stork's taunting of the narrator?

F *With each bounce, he nudged me closer to the hoop.*

G *"You can quit the talk, Stork," I answered.*

H *"I'm coming, Shorty," he said, backing into me.*

J *The only way to silence him was to beat him.*

3 Which might the reader infer about the narrator when he answers Stork in paragraph 8?

A He is too tired to play anymore.

B He is sure he can beat Stork next time.

C He is very angry that Stork bumped into him.

D He is annoyed and frustrated that his move didn't work.

4 Read paragraph 21.

> *I drove straight down the right side of the lane. No fakes, no fancy stuff—straight at Stork's left side. He tripped over his feet moving backward to his left. Easy basket for me. "Your ball, big man," I said.*

What information from earlier in the passage best supports why the narrator can make the shot?

F He understood Stork's weakness.

G He knew that he was a good player.

H He realized that hard work would help him improve.

J He had practiced his left-handed layouts every day.

5 What can the reader infer about success based on the text?

A Success is achieved by patiently waiting your turn to rise to the top.

B Success is built on a foundation of mental toughness and desire to win.

C Success is based on your natural skill and ability to intimidate your opponent.

D Success comes not only by building on your strengths, but also from working on your weaknesses.

Exit Ticket

Now that you have mastered the art of making inferences, let's revisit Jamie and the Real-World Connection.

Jamie is making inferences based on reading two articles about Yellowstone National Park. She is to make a report to the class about what she has learned. How can Jamie figure out which inferences are valid and what evidence will support her inferences? Describe the process you would use to help Jamie complete her assignment.

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