



Making Inferences

Inferring includes:

- Creating interpretations and synthesizing information.
- Making predictions.
- Determining meanings of unknown words.
- Creating mental images.
- Inferring answers to our own questions.

(Harvey & Goudvis, 2007; Miller, 2002)



CREATING MENTAL IMAGES

Creating Mental Images

“Visualizing strengthens our inferential thinking. When we visualize, we are in fact inferring, but with mental images rather than words and thoughts. When we create mental images we take the words from the text and mix them with our background knowledge to create a picture in our mind. We use all of our senses to create mental images. In literary texts, this helps us to understand what the setting looks like, what a character looks like, how characters are behaving, etc. In informational text, creating mental images helps us to understand the dimensions of size, space and time.”

(Harvey & Goudvis, 2007, p. 130)

Creating Mental Images

“Various studies have demonstrated that simply suggesting to students that they attempt to form visual images as they read improves engagement, comprehension, and comprehension monitoring for many students.”

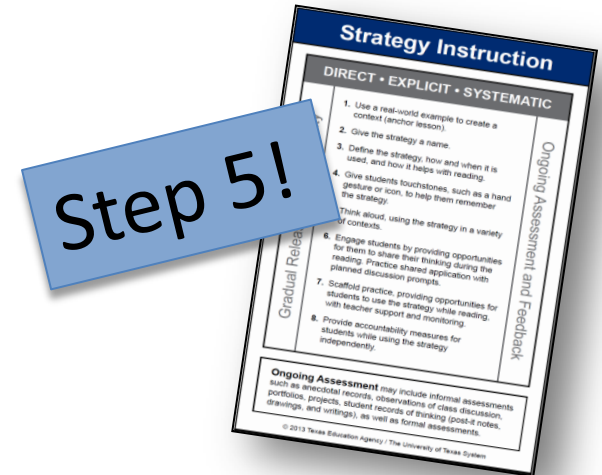
However, “struggling readers do not employ imagery and do not know how to do so. Simply prompting them will not suffice.”



(Wilhelm, 2004, p. 57)

Creating Mental Images

“Reading aloud to students is a great way to help them build their image-making abilities. As you read aloud, be sure you also think aloud to model how you create images as you read. Use texts that are rich in images, and then demonstrate several times how you create images.”



(Wilhelm, 2004, p. 58)

CPQ: How does ordinary smallpox progress throughout the body once the disease is contracted by an individual?

Think Aloud

Text Excerpt

Smallpox is explosively contagious, and it travels through the air. Virus particles in the mouth become airborne when the host talks. If you inhale a single particle of smallpox, you can come down with the disease. After you've been infected, there is a typical incubation period of ten days. During that time, you feel fine. Then the illness hits with a spike of fever, a backache, and vomiting. Small red spots appear all over the body. The spots turn into blisters, called pustules, which are filled with a thick, pressurized opalescent pus. The eruption of pustules is very painful. The skin doesn't break, but it peels off horizontally, tearing away in sheets. The pustules eventually become small, hard, pea-sized bumps. The bumps can be seen through the skin. The bumps eventually begin to erupt so that they get smaller until the top layer of the skin is covered with hard little pea-sized bumps - there isn't a smooth place on the skin. The bumps eventually fall off, leaving scars. This is known as ordinary smallpox.

I can picture this really clearly. I can imagine how small invisible particles of spit spray out of the mouth of someone who is talking and how just one particle might be inhaled by the listener facing the speaker.

So little red spots like a rash appear first and then they get

I can imagine how that would look. The sacs eventually begin to erupt so that they get smaller until the top layer of the skin is covered with hard little pea-sized bumps - there isn't a smooth place on the skin.

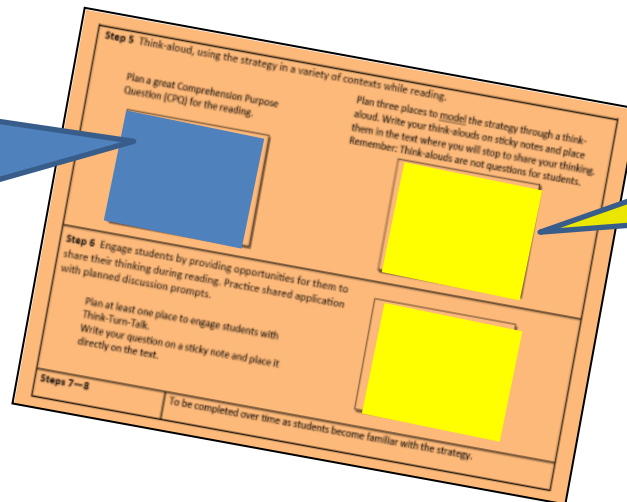


Creating Mental Images



Read the first page of *To Build a Fire* by Jack London. Use the orange planning card to plan a CPQ and at least 2 places where you could stop and think aloud the mental images you are making while reading.

CPQ: What is the relationship of man and nature in London's short story?



Plan 2 places to model aloud the images you make while reading.

Creating Mental Images: Additional Support

“Removing the restraints of word recognition and decoding allows a very positive focus on the meaning behind an author’s words.”

(Wolfson, 2008, p. 105)

Creating Mental Images: Additional Support

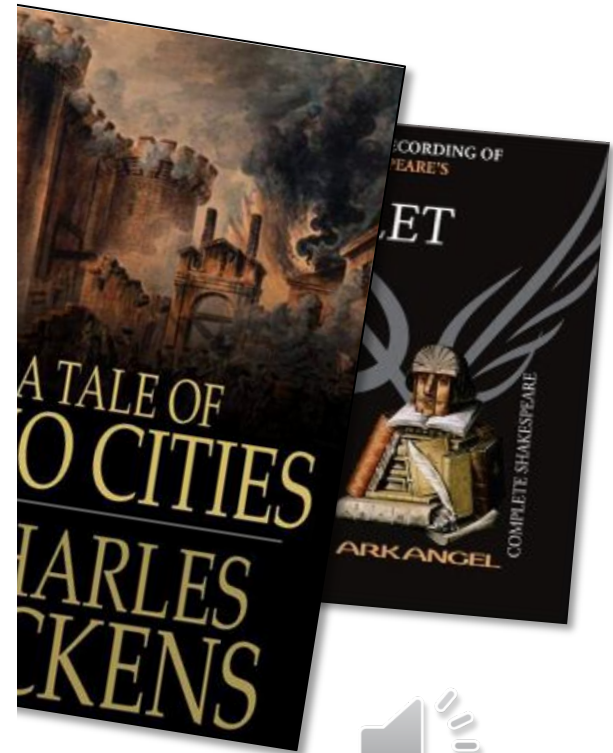
“ The use of audiobooks with struggling, reluctant, or second-language learners is powerful since they act as a scaffold that allows students to read above their actual reading level. This is critical with older students who may still read at a beginner level. While these students must have time to practice reading at their level, they must also have the opportunity to experience the plot, structures, themes, and vocabulary of more difficult books.”

(Beers, 1998, p. 33)

Creating Mental Images: Additional Support

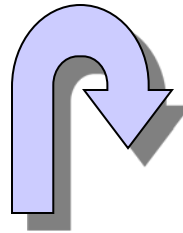
Audiobooks may be used to:

- Introduce a text
- Share an unfamiliar dialect.
- Follow character action.
- Create interest and motivation.
- Clarify critical portions of the text.



Reflect and Share

- How will you teach students to create mental images while reading?
- How might these scaffolds help students to comprehend?





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INFERRING ANSWERS TO OUR OWN QUESTIONS

Teaching Making Inferences & Predictions

- Creating interpretations and synthesizing information.
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(Harvey & Goudvis, 2007; Miller, 2002)



“What I like in a good author isn’t what he says, but what he whispers.”

~Logan P. Smith

The smallpox virus first became entangled with the human species somewhere between three thousand and twelve thousand years ago—possibly in Egypt at the time of the Pharaohs. Somewhere on earth at roughly that time, the virus jumped out of an unknown animal into its first human victim, and began to spread. Viruses are parasites that multiply inside the cells of their hosts, and they are the smallest life forms. Smallpox developed a deep affinity for human beings. It is thought to have killed more people than any other infectious disease, including the Black Death of the Middle Ages. It was declared eradicated from the human species in 1979, after a twelve-year effort by a team of doctors and health workers from the World Health Organization. Smallpox now exists only in laboratories.

Smallpox is explosively contagious, and it travels through the air. Virus particles in the mouth become airborne when the host talks. If you inhale a single particle of smallpox, you can come down with the disease. After you've been infected, there is a typical incubation period of ten days. During that time, you feel normal. Then the illness hits with a spike of fever, a backache, and vomiting, and a bit later tiny red spots appear all over the body. The spots turn into blisters, called pustules, and the pustules enlarge, filling with pressurized opalescent pus. The eruption of pustules is sometimes called the splitting of the dermis. The skin doesn't break, but splits horizontally, tearing away from its underlayers. The pustules become hard, bloated sacs the size of peas, encasing the body with pus, and the skin resembles a cobbled stone street.

The pain of the splitting is extraordinary. People lose the ability to speak, and their eyes can squeeze shut with pustules, but they remain alert. Death comes with a breathing arrest or a heart attack or shock or an immune-system storm, though exactly how smallpox kills a person is not known. There are many mysteries about the smallpox virus. Since the seventeenth century, doctors have understood that if the pustules merge into sheets across the body the victim will usually die: the virus has split the whole skin. If the victim survives, the pustules turn into scabs and fall off, leaving scars. This is known as ordinary smallpox.

Day had broken cold and grey, exceedingly cold and grey, when the man turned aside from the main Yukon trail and climbed the high earth-bank, where a dim and little-travelled trail led eastward through the fat spruce timberland. It was a steep bank, and he paused for breath at the top, excusing the act to himself by looking at his watch. It was nine o'clock. There was no sun nor hint of sun, though there was not a cloud in the sky. It was a clear day, and yet there seemed an intangible pall over the face of things, a subtle gloom that made the day dark, and that was due to the absence of sun. This fact did not worry the man. He was used to the lack of sun. It had been days since he had seen the sun, and he knew that a few more days must pass before that cheerful orb, due south, would just peep above the sky-line and dip immediately from view.

The man flung a look back along the way he had come. The Yukon lay a mile wide and hidden under three feet of ice. On top of this ice were as many feet of snow. It was all pure white, rolling in gentle undulations where the ice-jams of the freeze-up had formed. North and south, as far as his eye could see, it was unbroken white, save for a dark hair-line that curved and twisted from around the spruce-covered island to the south, and that curved and twisted away into the north, where it disappeared behind another spruce-covered island. This dark hair-line was the trail--the main trail--that led south five hundred miles to the Chilcoot Pass, Dyea, and salt water; and that led north seventy miles to Dawson, and still on to the north a thousand miles to Nulato, and finally to St. Michael on Bering Sea, a thousand miles and half a thousand more.