Making Inferences and Predictions
Grades 6 – 12
“Inferring is the bedrock of comprehension, not only in reading. We infer in many realms. Our life clicks along more smoothly if we can read the world as well as text. Inferring is about reading faces, reading body language, reading expressions, and reading tone as well as reading text.”

(Harvey & Goudvis, 2000, p. 105)

Goals for This Training

- Clarify what Making Inferences and Predictions includes.
- Recognize the importance of teaching Making Inferences and Predictions.
- Practice a routine for planning and teaching Making Inferences and Predictions.
- Understand how to teach Making Inferences and Predictions across disciplines.
Making Inferences and Predictions

Grades 6-12

What Is MAKING INFERENCES and PREDICTIONS?

Making Inferences and Predictions

• Inference: “A logical conclusion based on background knowledge and clues in the text. Inferences are not explicitly confirmed in the text.”
• Prediction: “A logical guess based on the facts. It is either confirmed or disproved by the text.”

(Tovani, 2000, p. 105)
Making Inferences and Predictions

- Assumption: “A fact or statement taken for granted. Assumptions may or may not be based on facts or information and may or may not be correct.”
- Opinion: “A belief or conclusion that isn’t necessarily based on facts or information. It can be informed or ridiculous, because it is based on what one thinks instead of what is proven by facts to be true.”

(Tovani, 2000, p. 105)

Building Reading Comprehension Habits in Grades 6-12

CPO: What do you learn about inferring and predicting from reading the excerpt?

Making Inferences

Inferring includes:
- Determining meanings of unknown words.
- Making predictions.
- Answering our questions when the answers are not in the text.
- Creating interpretations and synthesizing information.

(Miller, 2002)
Why Should We Teach Making Inferences?

"I can diagram a sentence to death. I know the meaning of every literary term there is, but I don’t understand how that’s supposed to help me. I wish teachers would spend more time showing us how to understand hard books. Instead, they assign chapters for us to read along with a bunch of questions, and then they send us on an endless search for when literary devices are used. That makes me hate the book.

My friends don’t even read the book. They use SparkNotes to answer the questions. In a way, they’re learning how to cheat, they’re not learning how to understand hard books."

~ Emily, 8th grade Pre-AP

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Making Inferences and Predictions
Grades 6-12

When we infer, we create a personal meaning from the text. We combine what we read with relevant background knowledge to create a meaning that is not explicitly stated in the text. Good “readers actively search for, or are aware of, implicit meaning.”

(Keene & Zimmermann, 1997, p. 162)

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(Keene & Zimmermann, 1997, p. 162)

Making Predictions

Encouraging students to make predictions has been successful in increasing interest in and memory of what has been read. This is true however, only if predictions are explicitly compared to the ideas in the text during reading. Verifying predictions may be just as important as making the actual prediction.

(Duke & Pearson, 2002)

Why Should We Teach Making Inferences and Predictions?

English Language Arts: Reading

Students analyze, make inferences and draw conclusions about...

• Theme and genre in different cultural and contemporary contexts.
• The structure and elements of poetry, drama, and fiction.
• The varied structural patterns and features of literary nonfiction.
• How an author’s sensory language creates imagery in literary texts.
• The author’s purpose in cultural, historical, and contemporary contexts.
• Expository text, persuasive text.

...and provide evidence from the text to support their understanding/analysis.

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Why Should We Teach Making Inferences and Predictions?

Fig. 19
Reading/Comprehension Skills
Students are expected to...
make complex inferences about text and use textual evidence to support understanding.

Why Should We Teach Making Inferences and Predictions?

• Environmental Systems (c)(2)(i) make inferences and predict trends from data;
• Integrated Physics and Chemistry (c)(3)(C) draw inferences based on data related to promotional materials for products and services;
• Social Studies, Grades 6&7 (b)(21)(B) analyze information by... predictions, and drawing inferences and conclusions;
• Algebra I (b)(1)(E) interpret and make decisions, predictions, and critical judgments from functional relationships.
• Algebra I (b)(2)(C) interpret situations in terms of given graphs...

Why Should We Teach Making Inferences and Predictions?

ELPS Reading 4(J) demonstrate English comprehension and expand reading skills by employing inferential skills such as predicting, making connections between ideas, drawing inferences and conclusions from text and graphic sources, and finding supporting text evidence commensurate with content area needs;
Why Should We Teach Making Inferences and Predictions?

Think about your data.

• What does your data indicate regarding our students’ ability to make inferences and predictions?

How Should We Teach MAKING INFERENCES and PREDICTIONS?

Dear George,

I gave you after-school detention one day for mouthing off to me. I thought I had done such a good job of setting up the premise for the story we read—a great mountain-climbing adventure called “Trip to Mars”—and then had read most of it aloud to the class. You, along with everyone else, were supposed to read the rest of it on your own and then, that night for homework, answer one question. Who was the top man? The next day, when I asked who you thought the top man was, you just shrugged. I asked what the shrug meant.

“I don’t know,” you replied. “You don’t know the answer to the question or you don’t know why you shrugged?” I pressed. “The question. It didn’t say who was the top man.” You’re supposed to make an inference. George, you know. Inference. That’s how you answer the question. Make an inference.” You stared at me for a moment, then said, “No, I guess I don’t know. Don’t you think if I did know, I’d just do it and get you off my back?” Etc.

Obviously, George, twenty-three years ago, it took much less for me to send a kid to detention. Honestly, though, I think I gave you detention because your answer was just too honest. I shushed you into a corner and then punished you when you defended yourself. If I was so good at making inferences, I wonder why it took me so long to figure that one out.
The Teacher Is Key

“Children’s difficulties on inference-related items often correlate to teachers’ lack of clarity about what good inference instruction looks like... if we’re not sure how to describe inference, our instruction tends to be less explicit, less frequent, and less than memorable.”

(Keene & Zimmermann, 2007, p. 148)

Cognitive Strategy Routine

- An anchor lesson is a real-world example used to create context for a cognitive strategy.
- We refer to the anchor lesson to remind students of the cognitive strategy.
Anchor Lesson for Making Inferences & Predictions

Use a Real-World Example (Step 1)

“Remember when we looked through the purse and used the clues in the purse and our background knowledge to figure out who owned the purse?”

Record what you will say for Step 1 on your orange Cognitive Strategy Routine Lesson Planning Card.

Strategy Instruction

1. Use a real-world example to create a context (anchor lesson).
2. Give the strategy a name.
3. Define the strategy, how and when it is used, and how it helps with reading.
4. Give students touchstones, such as a hand gesture or icon, to help them remember the strategy.
Give the Strategy a Name (Step 2)

“Today, we’re going to talk about a strategy called Making Inferences and Predictions.”

Record what you will say for Step 2 on your orange Cognitive Strategy Routine Lesson Planning Card.

Define the Strategy (Step 3)

“An inference is when we combine our background knowledge along with information in the text to understand what the author is not telling us directly. An inference about future information is a prediction. When we make inferences, it helps us understand text more fully.”

“Inferences are really important and great readers make them all the time. An inference is something a reader knows from reading, but the author doesn’t include it in the book. It helps you understand the story more deeply and helps make books mean something very personal to you.”

(Keene & Zimmermann, 2007, p. 148)
Define the Strategy (Step 3)
Record what you will say for Step 3 on your orange Cognitive Strategy Routine Lesson Planning Card.

An inference is...

Give Students Touchstones (Step 4)
You may choose to provide students with a hand motion that signals “Making Inferences and Predictions.”

Display strategy posters in the classroom.

Touchstones: Explain the strategy poster and refer to the anchor lesson.

“When I make an inference, I will show you by pointing to the poster. Look at the detective on our poster. He is searching for clues in the text and using his background knowledge to make an inference. We made inferences when we tried to figure out to whom the purple purse belonged.”
Give Students Touchstones (Step 4)

Record what you will say for Step 4 on your orange Cognitive Strategy Routine Lesson Planning Card.

Think-Aloud (Step 5)

A think-aloud is a way to provide *instruction* rather than just give *instructions*” (Daniels & Zemelman, 2004, p. 238).

Students who struggle with reading “in general do not possess knowledge of strategies and often are not aware of when and how to apply the knowledge they do possess” (Duffy et al., 1987, p. 348).

Cognitive Strategy Lesson Planning Card (Side 2)

Step 5 is where we SHOW students how we use the strategy while reading.

We plan a Comprehension Purpose Question (CPQ), as well as places to model thinking-aloud for students.

Step 5 will differ with each lesson. We transfer the sticky notes from the planning card and place them on the text.
Think-Aloud (Step 5)

Making Inferences Graphic Organizer

Graphic organizers can help struggling students to focus “attention on the text while they read or help them organize the incoming information contained in the text” (Almasi, 2003, p. 92).

This type of activity helps students to actively think about the text while they are reading. This particular organizer helps students to “explore a text by using text-explicit and text-implicit thinking processes... It is a child-centered strategy that allows the teacher to guide children both to the ideas in the text and to the processes involved in getting those ideas” (Searfoss & Readence, 1994, pp. 246-248).

Use scaffolds to support student learning.
Making Inferences and Predictions
Grades 6-12

What do we learn about the woman coming into town?

<table>
<thead>
<tr>
<th>CPQ:</th>
<th>What do we learn about the woman coming into town?</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Answers to the CPQ</td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>Evidence (Text Clues)</td>
</tr>
<tr>
<td>1.</td>
<td>They had come back from burying the dead… the sudden dead.</td>
</tr>
<tr>
<td></td>
<td>She had come back from burying the dead… the sudden dead.</td>
</tr>
<tr>
<td></td>
<td>She was coming back from burying the dead – someone who died suddenly.</td>
</tr>
<tr>
<td>2.</td>
<td>Remember the way they didn’t want to work.</td>
</tr>
<tr>
<td></td>
<td>Swallowed with relish.</td>
</tr>
<tr>
<td></td>
<td>Burning statements… laughs.</td>
</tr>
<tr>
<td></td>
<td>The mood comes alive.</td>
</tr>
<tr>
<td></td>
<td>Coming back in dem overalls?</td>
</tr>
<tr>
<td></td>
<td>Where’s that blue satin dress?</td>
</tr>
<tr>
<td></td>
<td>The townspeople used to be envious of her, but now they enjoy seeing her fall on hard times.</td>
</tr>
<tr>
<td>3.</td>
<td>She’s 40 years old.</td>
</tr>
<tr>
<td></td>
<td>What dat ole forty year ole ‘oman doin’…</td>
</tr>
<tr>
<td></td>
<td>She’s 40 years old.</td>
</tr>
<tr>
<td></td>
<td>What dat ole forty year ole ‘oman doin’ wid her hair swingin’ down her back lak some young gal?</td>
</tr>
<tr>
<td></td>
<td>Her hair is long and she’s wearing it down, which isn’t appropriate for an older woman.</td>
</tr>
<tr>
<td>2.</td>
<td>She left the town to marry a poor, younger man, but that didn’t work out.</td>
</tr>
<tr>
<td></td>
<td>She left the town to marry a poor, younger man, but that didn’t work out.</td>
</tr>
<tr>
<td></td>
<td>Where she left dat young lad of a boy she went off here wid?</td>
</tr>
<tr>
<td></td>
<td>Thought she was going to marry?</td>
</tr>
<tr>
<td></td>
<td>What he done wid all her money?</td>
</tr>
<tr>
<td></td>
<td>Why she don’t stay in her class?</td>
</tr>
<tr>
<td></td>
<td>People are jealous of others when they have less than them.</td>
</tr>
<tr>
<td></td>
<td>She was higher class compared to the rest of the townspeople.</td>
</tr>
<tr>
<td>2.</td>
<td>She left the town to marry a young man, but that didn’t work out.</td>
</tr>
<tr>
<td></td>
<td>She left the town to marry a young man, but that didn’t work out.</td>
</tr>
<tr>
<td></td>
<td>Remember the way they didn’t want to work.</td>
</tr>
<tr>
<td></td>
<td>Swallowed with relish.</td>
</tr>
<tr>
<td></td>
<td>Burning statements… laughs.</td>
</tr>
<tr>
<td></td>
<td>The mood comes alive.</td>
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<tr>
<td></td>
<td>Coming back in dem overalls?</td>
</tr>
<tr>
<td></td>
<td>Where’s that blue satin dress?</td>
</tr>
<tr>
<td></td>
<td>Where all dat money…</td>
</tr>
<tr>
<td></td>
<td>Why she don’t stay in her class?</td>
</tr>
<tr>
<td>2.</td>
<td>She left the town to marry a young man, but that didn’t work out.</td>
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<td>Remember the way they didn’t want to work.</td>
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<td>Burning statements… laughs.</td>
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<td></td>
<td>Coming back in dem overalls?</td>
</tr>
<tr>
<td></td>
<td>Where’s that blue satin dress?</td>
</tr>
<tr>
<td></td>
<td>Where all dat money…</td>
</tr>
<tr>
<td></td>
<td>Why she don’t stay in her class?</td>
</tr>
</tbody>
</table>

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Using Quadratic Models, Chapter 5, p. 236

**QPO:** What information from the table helps you to know your prediction for b is reasonable?

**Inferences:**

1. The water drain decreases.

2. The water level at b minutes will be 0 mm.

<table>
<thead>
<tr>
<th>Minute</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>120 mm</td>
</tr>
<tr>
<td>60</td>
<td>28 mm</td>
</tr>
</tbody>
</table>

**Inference:**
In the first minute, the water level went down from 120 mm to 28 mm, which is a difference of 92 mm. At the start of the second minute, there are only 28 mm left. In 2 minutes, there wouldn't be any water left. It's not possible for the container to refill itself—it is draining.

Using Quadratic Models, Chapter 5, p. 236

**What information from the table helps you to know your prediction for b is reasonable?**

**Inference:**
In the first minute, the water level went down from 120 mm to 28 mm, which is a difference of 92 mm. At the start of the second minute, there are only 28 mm left. In 2 minutes, there wouldn't be any water left. It's not possible for the container to refill itself—it is draining.
Making Inferences and Predictions
Grades 6-12

Title: Pedigree Charts, Chapter 14, p. 342

CPQ: "What are the genotypes of both parents on the left in the second generation?"

- At the top of the chart is a grandfather.
- Grandfather has the heterozygous trait.
- Dad must be heterozygous, because only one of his parents has the trait and he has the trait. We don’t know about mom’s parents, but since only one of their kids has the trait, mom has to be heterozygous. If she was homozygous, then both kids would have the trait.

Pedigree Charts, Chapter 14, p. 342

Text

Handout 5

Making Inferences Graphic Organizer

| CPQ | "What are the genotypes of both parents on the left in the second generation?"
| P & Q | My Answers to the CPQ (Shaded or Empty)

<table>
<thead>
<tr>
<th><strong>Text</strong></th>
<th><strong>Shaded (Homozygous) or Empty (Heterozygous)</strong></th>
<th><strong>Background Knowledge (Connects to What Shown)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity 1.4.3: Pedigree charts identify traits inherited from parents. Pedigrees show genotype, not phenotype.</td>
<td>Shaded (Homozygous)</td>
<td>Pedigree charts identify traits inherited from parents. Pedigrees show genotype, not phenotype.</td>
</tr>
<tr>
<td>Activity 1.4.3: Pedigree charts identify traits inherited from parents. Pedigrees show genotype, not phenotype.</td>
<td>Empty (Heterozygous)</td>
<td>Pedigree charts identify traits inherited from parents. Pedigrees show genotype, not phenotype.</td>
</tr>
</tbody>
</table>

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Your Turn! (Step 5)

- Read the excerpt from Johnny Tremain.
- Use the Cognitive Strategy Routine Lesson Planning Card to plan a CPQ for this text.

Text Excerpt

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Your Turn! (Step 5)

- Use the Think-Aloud sticky notes to record the first three statements you will stop to think-aloud for students.

Your Turn! (Step 5)

- Place your sticky notes on Handout 6 (blank graphic organizer).
- To ensure that your lesson is clear and explicit, plan what you will say to students. Record the text evidence and/or background knowledge you relied on to make the statement.

Practice Your Think-Aloud Lesson

- Place your sticky notes back in the text where you will stop and think-aloud for students. Now read the excerpt.
  a. Stop and share aloud the statement on the sticky note.
  b. Place the sticky note on a blank organizer as you would when modeling for students.
  c. Share out loud and record the appropriate information on the graphic organizer (refer to the organizer you created when planning as a guide).
  d. Tell students whether your statement is directly stated in the text or if you made an inference.
- Continue reading until you reach your next stop.
- Repeat a–d.
Engage Students (Step 6)

Ask students to share their thinking. Add statements to the graphic organizer and ask them to identify whether or not the statement is directly stated in the text or if they have to make an inference.

- Is this true? Did the author tell us this directly or are we making an inference?

She left the town to marry a poor, younger man, but that didn’t work out.

<table>
<thead>
<tr>
<th>Step 6</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 6</td>
<td>Inference</td>
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<td>Step 6</td>
<td>Inference</td>
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<td>Step 6</td>
<td>Inference</td>
</tr>
<tr>
<td>Step 6</td>
<td>Inference</td>
</tr>
</tbody>
</table>

- The men find her appealing (maybe she’s very attractive).
- Pheoby Watson is her best friend.
- The women in the town don’t think much of her.
- She wants to be famous, don’t you think much of her.
- Mostly remains in her best friend.

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“Discussion plays a key role in supporting the development of students’ understanding of text. It is through the interaction—or the transaction—of ideas, language, and perspective that comprehension is developed” (Israel & Duffy, 2009, p. 523).

Engage Students (Step 6)

Ask Think-Turn-Talk questions that require students to make inferences or predictions.

– “How did Janie feel about her discovery and why did she feel that way?”
– “Why is Nanny pushing so hard for Janie to get married?”
– “What are you inferring now?”
– “What do you think might happen?”

Creating a Safe Environment

“If we encourage and celebrate changes in thinking, rather than ‘correct’ responses, reading improves … We want to encourage our students to go back into the text to validate their thinking. We want … them to know that they can review the text and change their thinking” (Sibberson and Szymusiak, 2003, p. 124).

“Constant penalties for being wrong, as well as an overemphasis on correctness, grades, and being right, undermine the climate of safety that … readers need to take risks and grow” (Zemelman, Daniels, & Hyde, 2012, p. 107).
**Scaffold Practice (Step 7)**

“Today, we are going to read a well-known poem called, *Invictus*. As you work to understand the poem, record the inferences you are making on sticky notes. You will share your inferences with your group. Be prepared to explain why you think what you do.”

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**Provide Accountability Measures (Step 8)**

“After reading the excerpt today, I would like you to write your response to the CPQ. In your writing, explain what you learned about the character and her motivations. Be sure to provide text evidence and background knowledge to support your thinking.”

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“Students' comprehension of science, social studies, and language arts texts is improved when they write about what they read, specifically when they respond to a text in writing (writing personal reactions, analyzing and interpreting the text)…”

(Sharon Graham & Fran Hebert, 2010, p. 5)

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How might using the Cognitive Strategy Routine as an approach to teaching Making Inferences and Predictions support the students with whom you work?

Think

Turn

Talk

FADING THE SCAFFOLD

Teaching Making Inferences and Predictions

Annotating the Text

- “Annotating text is one of the most common comprehension-enhancing strategies used by proficient readers” (Daniels & Steineke, 2011, p. 41).
- “When students capture their thinking while reading, they are more likely to return to texts, participate in discussion and have an easier time starting writing assignments. They also use their marked text to review and study” (Tovani, 2004).
Annotating the Text

- “The concept of holding and making thinking is new to a lot of students because they’ve been taught that it’s the teacher’s job to ask the questions, and the student’s job to answer them” (p. 68).
- “Merely underlining text is not enough. Thinking about the text must accompany the underlining” (p. 69).
- “I have to teach students how to show their thinking again and again. It doesn’t miraculously happen because I’ve assigned it” (p. 69).

(Tovani, 2004)

Annotating the Text

- Select small, complex pieces of text to model annotating text for students.
- Project the text so it is large enough for all students to see.
- Set the CPQ for the reading.
- Read the text aloud, stopping to underline the key information and place sticky notes explaining your thinking in the margin of the text.
- Clearly explain why you underlined what you did and what you are thinking.

Annotating the Text

- The Gettysburg Address, 1863
  Abraham Lincoln

Fourscore and seven years ago our fathers brought forth, upon this continent, a new nation, conceived in liberty and dedicated to the proposition that "all men are created equal."
Making Inferences and Predictions
Grades 6-12

He’s come to dedicate a portion of the battlefield as a memorial to those who have died in the war. The brave men, living and dead, who struggled here have earned all honor. It is not the Senate or Congress, nor any other man, but we, the living, who are to be held accountable for the result of the war. Therefore, it is our duty to dedicate these grounds as a memorial to the brave men who gave their lives for our country.

Your Turn!

• Read the excerpt from The Story of An Hour.
• Use the Cognitive Strategy Routine Lesson Planning Card to plan a CPQ for this text.

Text Excerpt

Your Turn!

• As you read, underline the most important information (evidence in the text). On sticky notes, record your thinking. Be aware of the inferences you are making to help you answer the CPQ.
• Think about how you would explain to students WHY you are annotating the text the way you are.
Annotating the Text

• After we model multiple times for students, we can annotate text together (Step 6).
• Gradually, we release responsibly so students are able to successfully annotate complex chunks of texts independently (Step 8), increasing their ability to make inferences and predictions while reading.

Teaching Making Inferences

• Graphic Organizers – highly supportive.
• Annotating Text – less supportive.

Reflecting On the Training

• How might you implement the approaches for teaching Making Inferences and Predictions in your classroom?
• How might this type of instruction help your students?
Dear George,

On the last day of class, you handed me a note. “Read it later,” you said, then headed off for summer vacation. You had barely walked out our classroom door before I had unfolded your note. There, in your familiar pencil-smudged scrawl, you had written: “Sometimes what we show on the outside doesn’t really match what’s going on on the inside. Thank you for being my teacher.”

My inferencing skills weren’t too good, and I was never quite sure if the “we” meant students, in particular you, or the “we” meant teachers, in particular me. In either case, your words mean more than I ever had the chance to tell you. By the time I got into high school, you were gone. I dreamed of a summer of basketball, skateboards, and fishing. . . . I hope you had a life of success.

(Deer, 2003, p. 72)
References


