

# The Power of See, Think, Wonder

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## Part I: Thinking About Thinking Series

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This is part one of a five part series focused on using thinking routines to drive metacognitive skill building. Metacognition, often referred to as “thinking about thinking,” is a cognitive skill that empowers learners to reflect on their thought processes, learning strategies, and understanding of a concept or subject. By becoming metacognitive thinkers, students develop the capacity to monitor their learning, recognize gaps in understanding, and be strategic when attempting to solve complex problems.

Teachers can leverage the power of thinking routines developed by [Project Zero at Harvard’s Graduate School of Education](#) to help students develop their metacognitive muscles. The thinking routines are a collection of purposeful and structured thinking patterns designed to stimulate students’ cognitive engagement and cultivate a higher degree of cognitive awareness.

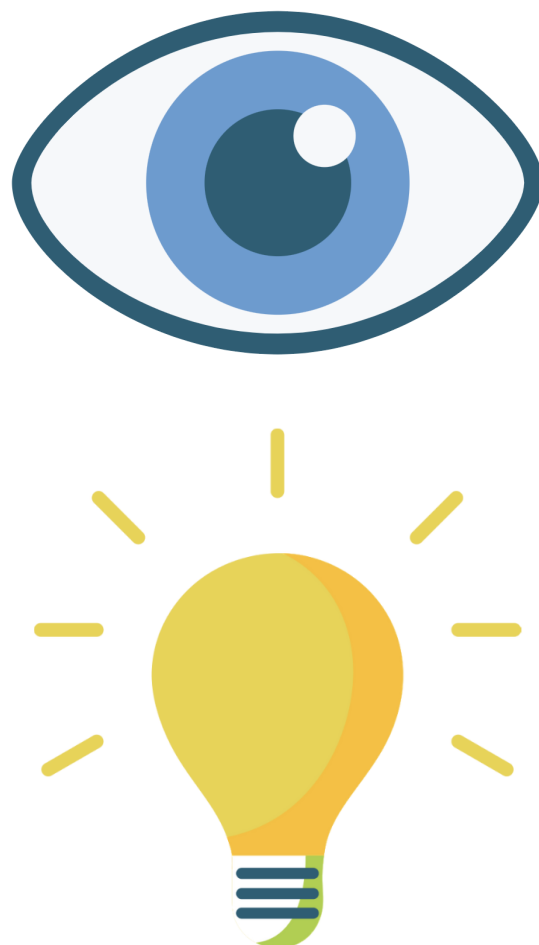
Teachers can use these thinking routines to design online or offline stations in a station rotation or embed them into a playlist to encourage students to pause and intentionally spend time thinking about their learning. Thinking routines offer more than just a structured pathway for students to delve into their thinking and explore the content deeply; they also serve as a window into their cognitive processes, offering invaluable formative assessment data.

In a series of blogs, I'll be exploring each thinking routine and providing suggestions for how teachers across grade levels can harness the power of these thinking routines with students.

## **See, Think, Wonder Thinking Routine**

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"I see, I think, I wonder" is a simple yet versatile thinking routine that can be used in elementary and secondary classrooms. During this process, students observe closely, interpret their observations thoughtfully, and generate questions that spark curiosity and drive inquiry.





At its core, the routine starts with the fundamental act of “seeing.” Students are encouraged to closely observe their surroundings, texts, artworks, or any subject matter presented to them. This initial step prompts them to engage their senses, stimulating curiosity and opening their minds to the richness of details they might otherwise overlook. Whether exploring scientific phenomena, literary works, historical events, or visual art, observation is the foundation of deeper exploration and understanding.

Next, students progress to the stage of “thinking.” As they reflect on their observations, learners are prompted to construct meaning, make connections or predictions, and explore possibilities. This critical thinking process encourages them to draw inferences, identify patterns, and make informed interpretations. Whether analyzing literary themes, scientific data, historical evidence, or artistic techniques, this analytical thinking nurtures their ability to approach subjects with a more discerning and insightful lens.

The final stage of this thinking routine is “wondering.” Students are encouraged to generate questions that surface from their observations and interpretations. These questions are the gateway to inquiry-based learning, stimulating curiosity, and driving further exploration. Encouraging students to ask thought-provoking questions not only fosters a deeper understanding of the subject matter but also leverages their natural curiosity, inspiring them to seek answers and become lifelong learners.

## **Using See, Think, Wonder at the Elementary Level**

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**Science Exploration:** Use this routine during nature walks or while exploring the schoolyard. Have students observe plants, insects, or other natural phenomena. They can record what they see, what they think might be happening, and questions they wonder about the environment.

**Reading Comprehension:** Before reading a story, ask students to look at the cover and think about the visual details on the cover, make predictions about what they think the story will be about, and capture their wondering about the story they are about to read. After reading a story or a chapter from a book, ask students to identify what they see in the text, what they think the main idea or theme is, and what questions they have about the characters or events.

**Art Analysis:** Display a piece of art or a photograph and guide students through the routine. They can describe what they see in the artwork, interpret its meaning or message, and share questions they have about the artist's choices.

**Historical Events:** When studying historical events, people, or places encourage students to analyze primary sources. They can share what they see in the documents or images, their thoughts about what they see, and questions they have about the time period, person, or place.

**Math Problem Solving:** Present a math word problem to the class, and have students articulate what they see in the problem, their initial thoughts on how to approach it, and any questions or uncertainties they have about the solution.

## **Using See, Think, Wonder at the Secondary Level**

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**Scientific Investigations:** During labs, experiments, or data analysis, students can use this routine to describe their observations, form hypotheses or explanations, and generate questions for further investigation.

**Literature Analysis:** Apply this routine when analyzing complex literary works, such as poems or novels. Students can delve into the imagery, symbolism, and themes while also questioning the motivations of characters/people or the author's choices/biases.

**Informational Texts:** Use this with informational texts that may include graphics and charts. Encourage students to closely observe the visual elements, articulate their interpretations, and generate insightful questions, fostering critical thinking and a deeper understanding of complex information presented in diverse formats.

**Media and Current Events:** Use this with news articles or multimedia sources. Students can critically examine the content, consider potential biases or implications, and raise further questions for deeper understanding.

**Historical Perspectives:** When studying historical events, encourage students to analyze multiple sources and perspectives. They can share what they see from different viewpoints, what they think about the causes or consequences, and what further questions arise.

**Political Cartoons and Propaganda:** Use when exploring political cartoons and propaganda. Encourage students to observe the visual symbolism, analyze underlying messages, and write questions about the persuasive techniques employed, cultivating media literacy and driving critical thinking.

**Ethical Dilemmas:** Present ethical scenarios or case studies, and ask students to articulate what they see as the core moral issues, their initial thoughts on the situation, and the questions they have about possible resolutions.

**Art:** Encourage students to observe the intricate details, interpret the artist's intentions, and ponder thought-provoking questions about the meaning and emotions conveyed, fostering a deeper appreciation for artistic expression and enhancing visual literacy skills.

The "I see, I think, I wonder" thinking routine can empower students to become more engaged, reflective, and self-directed learners. This versatile routine serves as a stepping stone towards fostering metacognitive skills and cultivating critical thinkers capable of navigating the complexities of the world with curiosity and confidence.

See, Think, Wonder...	
	<p>I see [specific details or objects].            I notice [observable patterns or changes].            I observe [distinctive colors, shapes, or forms].            I recognize [familiar symbols or icons].            I spot [prominent features or landmarks].            I identify [relevant figures or characters].            I perceive [emotional expressions or gestures].            I find [notable contrasts or comparisons].</p>
	<p>I think this means...            I believe that...            It seems like...            I infer that...            I understand that...            I interpret this as...            This suggests to me...            It appears that...            My impression is that...</p>
	<p>I wonder why...            What would happen if...            Why did...            I'm curious about...            What is the significance of...            How does this relate to...            I wonder if there could be a connection between...            What are the possible reasons for...            How might this impact...</p>

In the upcoming blog post of this series, we will explore the practical applications of the “Connect, Extend, and Challenge” thinking routine for educators. Discover how this versatile tool can deepen connections, foster growth, and inspire intellectual curiosity among students.

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