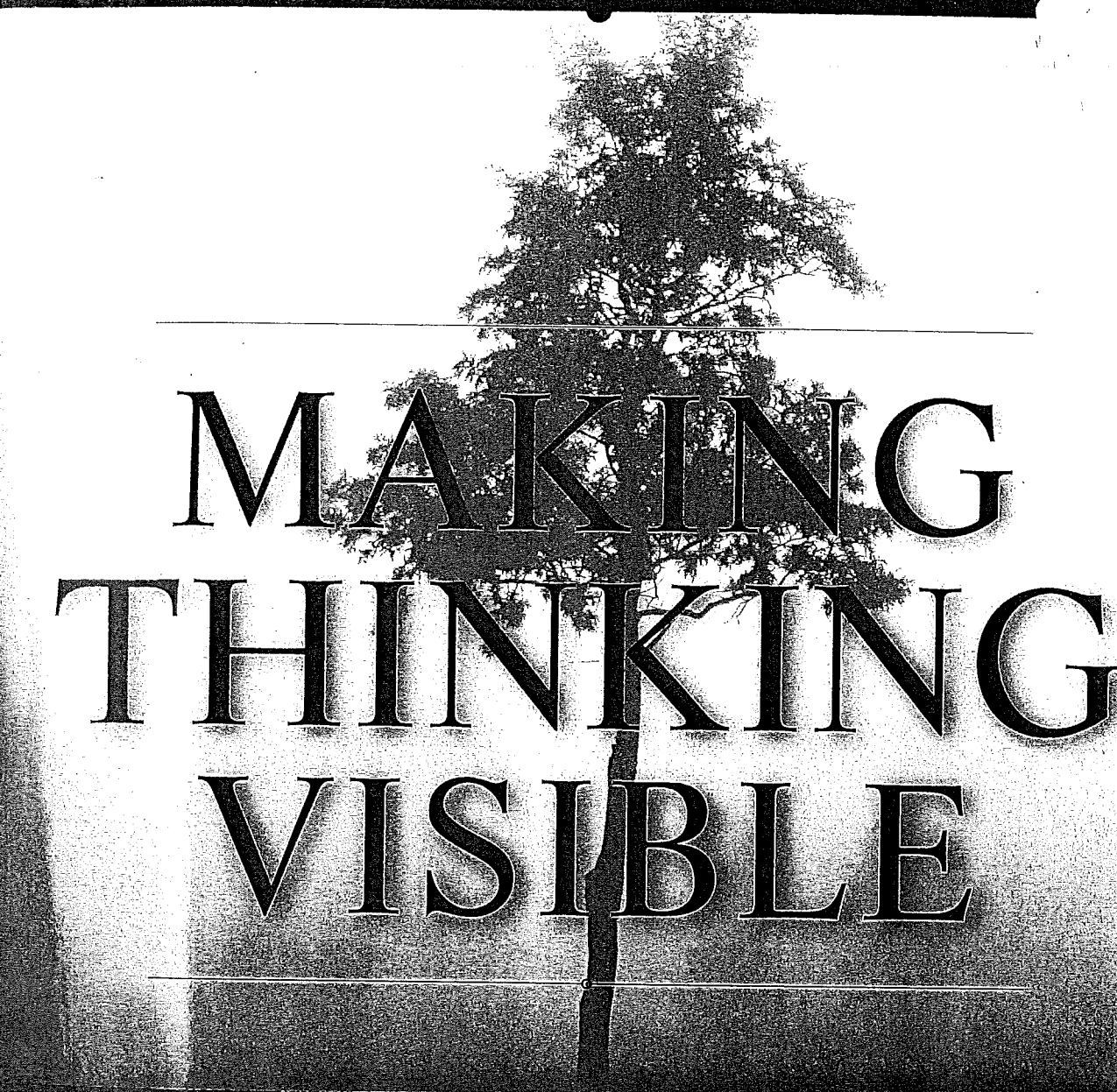


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FOREWORD BY DAVID PERKINS



MAKING
THINKING
VISIBLE

How to Promote
Engagement, Understanding, and
Independence for All Learners

Routines for Introducing and Exploring Ideas

🌀 SEE-THINK-WONDER P. 55

Looking at an image or object:

- What do you see?
- What do you think is going on?
- What does it make you wonder?

🌀 ZOOM IN P. 64

Look Closely at the Small Bit of Image That Is Revealed

- What do you see or notice?
- What is your hypothesis or interpretation of what this might be based on what you are seeing?

Reveal More of the Image

- What new things do you see?
- How does this change your hypothesis or interpretation? Has the new information answered any of your wonders or changed your previous ideas?
- What new things are you wondering about?

Repeat the Reveal and Questioning Until the Whole Image Has Been Revealed

- What lingering questions remain for you about this image?

🌀 THINK-PUZZLE-EXPLORE P. 71

Consider the subject or topic just presented.

- What do you *think* you know about this topic?
- What questions or *puzzles* do you have about this topic?
- How might you *explore* the puzzles we have around this topic?

⊙ CHALK TALK p. 78

Looking at the topic or question written on the chart paper:

- What ideas come to mind when you consider this idea, question, or problem?
- What connections can you make to others' responses?
- What questions arise as you think about the ideas and consider the responses and comments of others?

⊙ 3-2-1 BRIDGE p. 86

Thinking about the key concept or topic, identify:

INITIAL RESPONSE

- 3 Words
- 2 Questions
- 1 Metaphor/Simile

NEW RESPONSE

- 3 Words
- 2 Questions
- 1 Metaphor/Simile

BRIDGE

Identify how your new responses connect to or shifted from your initial response.

⊙ COMPASS POINTS p. 93

Considering the idea, question, or proposition before you:

E = Excitements. What excites you about this idea or proposition? What's the upside?

W = Worries. What do you find worrisome about this idea or proposition? What's the downside?

N = Needs. What else do you need to know or find out about this idea or proposition?

S = Stance, Steps, or Suggestions. What is your current stance or opinion on the idea or proposition? What should your next step be in your evaluation of this idea or proposition? What suggestions do you have at this point?

⊙ THE EXPLANATION GAME p. 101

Taking a close look at the object you are trying to understand:

- *Name it.* Name a feature or aspect of the object that you notice.
- *Explain it.* What could it be? What role or function might it serve? Why might it be there?
- *Give reasons.* What makes you say that? Or why do you think it happened that way?
- *Generate alternatives.* What else could it be? And what makes you say that?

Routines for Synthesizing and Organizing Ideas

⊙ HEADLINES p. 111

Think of the big ideas and important themes in what you have been learning.

- Write a headline for this topic or issue that summarizes and captures a key aspect that you feel is significant and important.

⊙ CSI: COLOR, SYMBOL, IMAGE p. 119

Think of the big ideas and important themes in what you have just read, seen, or heard.

- Choose a *color* that you think best represents the essence of that idea.
- Create a *symbol* that you think best represents the essence of that idea.
- Sketch an *image* that you think best captures the essence of that idea.

⊙ GENERATE-SORT-CONNECT- ELABORATE: CONCEPT MAPS

p. 125

Select a topic, concept, or issue for which you want to map your understanding.

- *Generate* a list of ideas and initial thoughts that come to mind when you think about this topic or issue.
- *Sort* your ideas according to how central or tangential they are. Place central ideas near the center and more tangential ideas toward the outside of the page.
- *Connect* your ideas by drawing connecting lines between the ideas that have something in common. Explain and write on the line in a short sentence how the ideas are connected.
- *Elaborate* on any of the ideas or thoughts you have written so far by adding new ideas that expand, extend, or add to your initial ideas.

⊙ CONNECT-EXTEND-CHALLENGE

p. 132

Consider what you have just read, seen, or heard, then ask yourself:

- How are the ideas and information presented *connected* to what you already knew?
- What new ideas did you get that *extended* or broadened your thinking in new directions?
- What *challenges* or puzzles have come up in your mind from the ideas and information presented?

⊙ THE 4C'S

p. 140

After reading a text:

- *Connections*: What *connections* do you draw between the text and your own life or your other learning?
- *Challenge*: What ideas, positions, or assumptions do you want to *challenge* or argue with in the text?
- *Concepts*: What key *concepts* or ideas do you think are important and worth holding on to from the text?
- *Changes*: What *changes* in attitudes, thinking, or action are suggested by the text, either for you or others?

⊙ THE MICRO LAB PROTOCOL P.147

Reflect individually on the issue or topic being examined, then working in triads:

- *Share*: The first person in the group shares for a set time (usually 1–2 minutes). The other members listen attentively without comment or interruption.
- *Pause* for 20–30 seconds of silence to take in what was said.
- *Repeat* for persons two and three, pausing for a moment of silence after each round.
- *Discuss* as a group (5–10 minutes), referencing the comments that have been made and making connections between the responses of the group.

⊙ I USED TO THINK..., NOW I THINK... P.154

Reflect on your current understanding of this topic, and respond to each of these sentence stems:

- I used to think...
- Now I think...

Routines for Digging Deeper into Ideas

⊙ WHAT MAKES YOU SAY THAT? P.165

In follow-up to a statement, assertion, or opinion expressed by someone, ask:

- What makes you say that?



CIRCLE OF VIEWPOINTS

P.171

Identify the different perspectives that could be present in or affected by what you have just read, seen, or heard. Record these in a circle with the issue or event at the center. Choose one of these perspectives to explore further, using the following prompts as a starting place:

1. I am thinking of [name the event/issue] from the point of view of . . .
2. I think . . . [describe the topic from your viewpoint. Be an actor—take on the character of your viewpoint]. Because . . . [explain your reasoning]
3. A question/concern I have from this viewpoint is . . .



STEP INSIDE

P.178

Think about a person or an object that is a part of or connected to the event or situation you are examining. Place yourself within the event or situation to see things from this point of view. Some questions to consider:

- What can this person or thing see, observe, or notice?
- What might the person or thing know, understand, hold true, or believe?
- What might the person or thing care deeply about?
- What might the person or thing wonder about or question?



RED LIGHT, YELLOW LIGHT

P.185

As you read, view, or listen to the material before you, consider the following questions:

- What are the *red lights* here? That is, what things stop you in your tracks as a reader/listener/observer because you doubt their truth or accuracy?
- What are the *yellow lights* here? That is, what things slow you down a bit, give you pause, and make you wonder if they are true and accurate or not?



CLAIM-SUPPORT-QUESTION

P.191

Drawing on your investigation, experience, prior knowledge, or reading:

- Make a *claim* about the topic, issue, or idea being explored. A claim is an explanation or interpretation of some aspect of what is being examined.
- Identify *support* for your claim. What things do you see, feel, or know that lend evidence to your claim?
- Raise a *question* related to your claim. What may make you doubt the claim? What seems left hanging? What isn't fully explained? What further ideas or issues does your claim raise?

⊙ TUG-OF-WAR

P. 199

Place a line across the middle of your desk or table to represent a tug-of-war rope. Working with a dilemma that can be considered from multiple perspectives or stances:

- Identify and frame the two opposing sides of the dilemma you are exploring. Use these to label each end of your tug-of-war rope.
- Generate as many "tugs," or reasons that "pull you toward," that is, support each side of the dilemma as you can. Write these on individual sticky notes.
- Determine the strength of each tug and place it on your tug-of-war rope, placing the strongest tugs at the farthest ends of the rope and the weaker tugs more toward the center.
- Capture any "What if . . . ?" questions that arise in the process. Write these on sticky notes and place them above the tug-of-war rope.

⊙ SENTENCE-PHRASE-WORD

P. 207

In your discussion group, review the text that you have read and each select your own:

- *Sentence* that was meaningful to you, that you felt captures a core idea of the text
- *Phrase* that moved, engaged, or provoked you
- *Word* that captured your attention or struck you as powerful

As a group, *discuss* and *record* your choices. Begin by each sharing your words, then phrases, then sentences. Explain why you made the selections you did. Looking at your group's collective choices of words, phrases, and sentences, reflect on the conversation by identifying:

- What themes emerge?
- What implications or predications can be drawn?
- Were there aspects of the text not captured in your choices?