Thinking Through Quality Questioning

Activity Packet

Professional Learning Sponsored by
Salesmanship Club Youth and Family Centers
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Facilitated by Jackie A. Walsh & Beth D. Sattes
Activity #1: Making Connections Between Questioning and Student Thinking—Affinity Mapping

I. Individual Thinking and Writing on Post-Its.
   
   A. Response to prompt.

   *Call to mind classes where you have observed all students actively engaged in thinking about classroom questions. What do you believe led to this high level of student engagement? Identify both the characteristics of the questions and the classroom questioning procedures, practices, and protocols that you believe were contributing factors.*

   B. Record each discrete idea on a separate sticky note. Generate as many ideas as you can during the allocated time. Write as legibly as possible: Your ideas will be read by peers.

II. Silent sharing of ideas.
   
   A. When directed by facilitators, affix your post-its to the easel paper provided.
   B. Working collaboratively and silently, create categories of “like” ideas.

   1. Use some type of graphic organizer to display your “clusters” of ideas.
   2. You may move both your own and your colleagues’ sticky notes as you collaborate to create categories that “make sense.”
   3. You may also add ideas that come to mind as you view and categorize your group’s set of ideas. Just grab another sticky note, record the additional idea, and place it in the appropriate category.

III. Naming of categories.
   
   A. When indicated by facilitators, you may talk within your group, naming a facilitator and recorder to assist with team tasks.
   B. As a team, reflect on the categories you have created. If desired, you can reconfigure sticky notes, consolidating or creating additional or different categories. Hint: Be sure that each category has internal consistency—and that categories are not so broad as to be of minimal use.
   C. When you are satisfied with groupings, decide upon a 1-2 word name for each identified category.
Activity #2: Comparing the Affinity Map to the Framework for TTQQ—
Table Team Jigsaw

I. Individual reading and thinking about one component of the TTQQ Framework.
   A. Each table team member selects an index card that indicates one of the five components of the TTQQ Framework she/he will read and think about. (In some instances, two team members will be reading and thinking about the same component.)

   B. Read your assigned description (on the next pages of this packet), highlighting big ideas and thinking about how you would communicate the essence of this component to your peers. Look back to your table's affinity map and identify similarities between your table’s categories and the components of this framework. Identify additional categories, from the reading, that you might add to the affinity map.

II. Sharing in round-robin fashion.
   A. In round-robin fashion, team members will share (1) the scope and contents of their assigned components, and (2) the relationship of this component to categories on the team’s Affinity Map. In cases where two individuals had the same assignment, they will share in reporting.

   B. Recommended order of sharing:
      1. Frame Quality Question
      2. Strengthen Student Thinking-to-Learn Behaviors
      3. Use Formative Feedback
      4. Promote Response-ability
      5. Nurture a Culture for Thinking

   C. Collaborative agreement on alignment of group categories with framework.
      1. Following all five reports, the facilitator leads the group in determining the extent to which their categories align with the Framework.
      2. The team recorder may add pieces from the framework to the affinity map and note on the easel paper relationships between team thinking and the framework.

III. Individual Reflection. What insights have you gained about questioning behaviors that support student (and teacher) thinking and learning?
1. **Frame Quality Questions.** Quality questioning begins with teacher planning and framing of quality questions (QQs). QQs focus on the content and cognitive learning targets of a given lesson (and are aligned with TEKS). They engage all students in thinking and forming their own answers because they are clear/understandable, connect to students’ prior knowledge and/or experiences, and are at an appropriate level of difficulty and complexity. Additionally, they are interesting and thought provoking to students because they connect, when possible, to the students’ interests and experiences and to other content areas. They prompt student responses that provide teachers with formative feedback about where students are in their learning progression.

QQs don’t “just happen” or come to us in the midst of a class. Rather, teachers grapple with both the concepts and content of these catalysts for student thinking—and the instructional purposes they wish the questions to serve. The best QQs result from teachers thinking collaboratively and creating, critiquing, and editing a limited number of focus questions as a part of lesson planning and design.

2. **Strengthen Thinking-to-Learn Behaviors.** As a part of the question formulation process, teachers need to be thinking about the type and level of student response the question is inviting. What qualifies as an acceptable student response—both in terms of correct content and appropriate cognitive level? Additionally, when teachers collaboratively plan and formulate questions, they can pool past experience in teaching the related content and anticipate student misunderstandings or incorrect responses. This can lead to a productive collaborative conversation addressing the question: “If a student answer contains this misconception, what follow-up questions might we ask to scaffold that student’s understanding?”

Planning for this function begins during the framing of questions, but is executed after the question is posed—in real time during class interactions. The goal is to scaffold students’ thinking about both the question posed and the student’s current understanding of associated content and cognitive requirements. This approach to processing a question differs radically from the traditional teacher-student interactions following the asking of a question. In many classrooms, the teacher asks a question, the student attempts to formulate “the right answer” (i.e., the teacher’s answer), and the teacher evaluates the response as to its correctness. The emphasis is on the students “knowing” the right answer, not thinking about the question and their response to it. Strategies for developing students’ thinking include the following:

- Teacher modeling through use of Think-Alouds, Reciprocal Teaching, etc.
- Wait Time 1 (a 3- to 5- second pause after asking the question before calling on a student to respond);
• Wait Time 2 (a 3- to 5- second pause after a student answers before commenting or posing a follow-up questions);
• Asking probing questions to get behind a student’s thinking;
• Sequencing follow-up questions to direct and support students’ thinking and answering;
• Helping students develop the skills and expectations of self- and peer-assessment of answers.

3. **Use Formative Feedback.** One of the most important uses of questioning is for formative assessment that produces feedback that supports both student learning and teacher decisions about next steps in instruction. A teacher’s ability to formulate this type of productive feedback depends upon her ability to compare a student response to the expected answer and identify any gaps between these two. This requires analytical thinking by teachers in real time in a classroom. This is a challenging task and one that many teachers have not had the time and support to develop to a level of automaticity. When teachers collaboratively frame questions as part of their lesson planning AND think together about expected responses, they are better prepared to identify errors, if any, in a student’s answer and verbalize meaningful feedback.

Additionally, most students do not automatically know how best to use such feedback to manage their learning. Rather, both teachers and students usually think of teacher feedback as a simple evaluation of the correctness of their answers. If we wish students to use feedback to identify errors in their thinking about content, then we must help them understand its purpose and how to use it to advance their learning. Effective feedback occurs in classrooms in which both students and teachers see answers as helpful in determining student understanding of a learning target. This feedback informs both teaching and learning.

4. **Promote Response-Ability.** The goal of quality questioning in the classroom is to engage every student in thinking and responding to questions and to build student ownership in the process of questioning, answering, and assessing responses. Attaining this goal requires a real shift in both teacher and student thinking—a shift from teacher control of student learning to a partnership approach that acknowledges each student’s responsibility for managing his or her learning. Essential to the development of student responsibility are the following:
• Use of response formats that hold all students accountable for formulating answers to every question, including cooperative learning strategies that engage all students
• Teacher’s expectation that students will ask questions when curious or confused and provision of support and opportunities for student questions
• Opportunities for students to learn collaboratively, including teaching them the skills for collaborative group learning
• Teaching students the skills of collaborative discussion and dialogue and formulating questions that will engage them in this type of discussion.
Finally, response-able students are developing skills that cause them to reflect on their thinking and monitor their learning. These students are developing the skills of metacognition. Although some students arrive at school with these skills, most do not. These skills can, however, be taught. Teachers who are working to develop truly response-able students are intentional in helping their students develop these metacognitive skills.

5. **Nurture a Culture for Thinking.** No matter how carefully teachers execute the technical aspects of quality questioning, student thinking will not thrive absent a culture to nurture and support it. Without such a culture, students will persist in traditional questioning behaviors. For example, they will continue to attempt “to guess” the teacher’s answer; they will refrain from asking questions to drive their learning; and they will sit back and wait for other students to volunteer answers.

To create a true learning culture that supports engagement and inquiry, teachers and students partner in creating a classroom where thinking is expected, valued, and celebrated; in which learning goals are established and attained; in which students work together to assess their and others’ learning. Important among the elements of a culture to promote thinking include the following:

- Establishment of norms (for student and teacher behavior related to questioning)
- Discussion and modeling of habits of mind that support inquiry, including intellectual curiosity, flexibility in thinking, open-mindedness, risk-taking, and perseverance or persistence.
- Intentional use of the language of thinking, including such verbs as speculate, analyze, hypothesize, justify.
- Development of caring, respectful relationships

Such cultures do not emerge spontaneously. They result from teacher planning, intentionality, modeling, and ongoing monitoring and reinforcement.
Activity #3: Analyzing Classroom Norms Related to TTQQ: Here’s What, So What? and Give One, Get One

I. Here’s What, So What? Pair Conversation: With an elbow partner, read through the three sets of norms below. After reading each set, think together about what this set of norms might look like in a classroom and about the possible impact on student thinking and learning. Record one “So what?” for each set of norms.

<table>
<thead>
<tr>
<th>Here’s What TTQQ Proposes to Support Student Thinking &amp; Learning</th>
<th>So What Impact Might This Have on Student Thinking &amp; Learning?</th>
<th>Now What Will I Do with This Information?</th>
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</thead>
<tbody>
<tr>
<td><strong>Purposes of Questioning</strong></td>
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<tr>
<td>• Use teacher questions to prompt your thinking, not to guess the teacher’s answer.</td>
<td>1.</td>
<td></td>
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<tr>
<td>• Use mistakes as opportunities to learn: This is a risk-free classroom.</td>
<td>2.</td>
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<td>• Use follow-up questions to think about and self-assess your first responses and to modify or extend your thinking.</td>
<td>3.</td>
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<td>• Be open to wonder and ask, not just to know and answer.</td>
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<td><strong>Think Times</strong></td>
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<tr>
<td>• Use the pause following the asking of a question to think and to formulate your response.</td>
<td>1.</td>
<td></td>
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<tr>
<td>• Use the pause after your answer to reflect and add to or change it.</td>
<td>2.</td>
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<tr>
<td>• Use the pause following a classmate’s answer to compare it with your own. Be ready to agree or disagree and to add your ideas.</td>
<td>3.</td>
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<td><strong>Participation</strong></td>
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<tr>
<td>• Raise your hand only when you have a question—not to volunteer to answer.</td>
<td>1.</td>
<td></td>
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<tr>
<td>• Listen with respect to other points of view in order to fully understand and learn</td>
<td>2.</td>
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<td>• Monitor your talk so others can contribute.</td>
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</tbody>
</table>
II. Give One, Get One.

A. When directed, stand up, taking Activity #3, a pen or pencil, and perhaps a book to bear down on when writing.

B. Find someone NOT seated at your table, and exchange one “So What?” idea from any of the three categories. When you have recorded this colleague’s idea (and she yours) in the template, move to find a different partner. Complete another exchange.

C. Connect with as many different individuals as possible during the allocated time.

D. When directed, return to your table. Consolidate your “findings” with your table partner.

III. Now What? Individual Reflection. When instructed by facilitators, take time for silent individual reflection focused on Now What Will I Do with This Information? You may think about the Now What? category by category, or as a group of three. You may also wish to jot down any questions you have related to any of the norms in the appropriate box on the template.
<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>INSTRUCTIONAL FUNCTION</th>
<th>EXAMPLES</th>
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</thead>
<tbody>
<tr>
<td>Essential Question</td>
<td>Provides focus for a unit of study; used in lieu of an instructional goal or objective</td>
<td>1. What are the limits of freedom?</td>
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<td></td>
<td>- Engages students in thinking at the conceptual level and assists students in</td>
<td>2. Why do cultures differ in their definitions of beauty?</td>
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<td></td>
<td>constructing schemata or mental models that assist in knowledge transfer</td>
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<td></td>
<td>- Assists students in finding patterns and making personal meaning</td>
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<td>- Promotes inductive learning by guiding students in discovery of ideas and their</td>
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<tr>
<td></td>
<td>meaning</td>
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<td></td>
<td>- Helps students think at more complex levels</td>
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<td></td>
<td>(Erickson, 2002, pp. 90-91)</td>
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<tr>
<td>Hook Question</td>
<td>Motivates students to become actively engaged in new content</td>
<td>1. Assume you lived 200 years ago. Given your preferences and interests,</td>
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<td></td>
<td>- Allows students to answer and become involved with content, even if they know</td>
<td>what benefits or advantages would you have enjoyed compared with your</td>
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<td></td>
<td>little about it</td>
<td>life in today’s society?</td>
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<td></td>
<td>-Invites students to use their experiences, opinions, and creativity to connect to</td>
<td>2. If you could be any creature of the sea, which</td>
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<td></td>
<td>the content</td>
<td>would you choose? Why?</td>
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<td></td>
<td>- Involves students in thinking and speculation</td>
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<td></td>
<td>- Encourages students to become investigators</td>
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<td></td>
<td>- Makes learning fun and adventuresome (Fried, 1995, pp. 78-80)</td>
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<tr>
<td>Diagnostic Question</td>
<td>Activates prior knowledge and preconceptions related to a new unit or lesson</td>
<td>1. In our geographic area, we experience four seasons. Locales that are</td>
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<td></td>
<td>- Activates prior knowledge and beliefs (1) to enable determination of the</td>
<td>closer to the equator do not have these seasonal changes. What is your</td>
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<td></td>
<td>correctness/incorrectness of these, (2) to allow students to connect new content</td>
<td>understanding of why equatorial regions do not have our four seasons?</td>
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<td>to existing knowledge (assuming it is correct), or (3) to engage in learning</td>
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<td></td>
<td>activities that will rectify misconceptions</td>
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<td></td>
<td>- Engages students in learning new content via connecting it to the known or to</td>
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<td></td>
<td>prior experiences</td>
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<td></td>
<td>- Provides teachers with information about student readiness to learn new content</td>
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<td>(Erickson, 2002, pp. 90-91)</td>
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</table>

1. Assume you lived 200 years ago. Given your preferences and interests, what benefits or advantages would you have enjoyed compared with your life in today’s society?
2. If you could be any creature of the sea, which would you choose? Why?
3. How can we uncover mathematical patterns?
4. How is our electronic culture affecting our brains?

1. In our geographic area, we experience four seasons. Locales that are closer to the equator do not have these seasonal changes. What is your understanding of why equatorial regions do not have our four seasons?
2. This year we will be studying U.S. geography, including the locations of the 50 states and their capitals. List the names of all the states that you can remember. Place a check-mark beside any that you have visited.
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<tbody>
<tr>
<td>Question to Check for Student Understanding</td>
<td>Assesses the extent to which students are moving toward learning target</td>
<td>1. What mathematical operations are used to determine earned run averages for baseball pitchers?</td>
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<td></td>
<td>• Allows teachers to assess student progress and to correct misunderstandings or fill in voids by providing additional instruction</td>
<td>2. Why are there more cities with Spanish names in the western and southwestern parts of the United States than in other regions?</td>
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<td></td>
<td>• Is one of the most accessible, easy-to-use, and productive types of formative assessment</td>
<td>3. What rule of spelling is suggested by the following words: weight, neighbor, and reign?</td>
</tr>
<tr>
<td>Probing Question</td>
<td>Helps teacher get behind student thinking and provide scaffolding for student learning and understanding</td>
<td>1. You stated that you do not believe in global warming. Help us understand how you reached this conclusion.</td>
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<td></td>
<td>• Seeks to assist student in clarifying or extending an understanding (or misunderstanding)</td>
<td>2. Previously, you told us that you think the early settlers mistreated the Native Americans. Provide specific examples of this mistreatment.</td>
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<td></td>
<td>• Helps to scaffold student thinking, understanding, and learning</td>
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<tr>
<td>Inference Question</td>
<td>Asks students to go beyond the given information or evidence and draw a tentative conclusion</td>
<td>1. Television, in general, and 24-hour-news channels, in particular, has a dramatic impact on contemporary Americans’ views of politicians. Select one of the American presidents whom we have studied to date; read a biography of his life. Compose a 2-4 page essay in which you offer a scenario of how his political career might have been different had TV existed during his lifetime. Support your thinking.</td>
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<td></td>
<td>• Encourages students to find clues or evidence, analyze these, and make determinations about possible inferences</td>
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<td></td>
<td>• Asks students to fill in missing information</td>
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<td>• Promotes critical thinking</td>
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<td>Interpretation Question</td>
<td>Solicits student analysis of a product (e.g., poem), event (e.g., Potsdam Conference), or a “big” idea or concept (e.g., peace)</td>
<td>1. Review the lyrics of the Star-Spangled Banner. What do these words mean to you? What do you think they meant to Francis Scott Key who composed our national anthem in 1814?</td>
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<td></td>
<td>• Encourages independent thinking</td>
<td>2. Which character in the novel, To Kill A Mockingbird, do you think has had the greatest impact on readers over the years? Why?</td>
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<td>• Provides practice in evaluation or judgment</td>
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<td></td>
<td>• Permits students to form and express personal opinions based upon criteria</td>
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<tr>
<td><strong>Transfer Question</strong></td>
<td>Requires students to apply knowledge in novel settings</td>
<td>1. This week we learned how to find the area of various geometric shapes. For homework, find the area of one room in your home. Use the yardstick we made in class to measure the dimensions of the room. Draw the room to scale on graph paper, marking dimensions. Then calculate the area.</td>
</tr>
<tr>
<td>✓ Requires students to apply information in a novel setting</td>
<td>✓ Enhances relevance of learning if the new setting is connected to real-life situations to which students can relate</td>
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<tr>
<td><strong>Predictive Question</strong></td>
<td>Facilitates student development of hypotheses</td>
<td>1. Look at the number sequence listed below. Predict the next number in the sequence.</td>
</tr>
<tr>
<td>✓ Engages students in “if-then” thinking</td>
<td>✓ Is open-ended; there is no one correct answer</td>
<td>2. We have read the first half of the story. How do you think the story will end? Provide a rationale.</td>
</tr>
<tr>
<td><strong>Reflective Question</strong></td>
<td>Causes students to think about their personal investment in learning and thinking</td>
<td>1. During this class, you often need to memorize certain facts. What strategies do you use to memorize material? What usually works best for you?</td>
</tr>
<tr>
<td>✓ Asks students to assess their personal relationship to the content they are studying</td>
<td>✓ Should be planned to occur at strategic points in the lesson to encourage student ownership of their learning</td>
<td>2. Think about your progress toward mastering the learning targets for this unit. What knowledge and skills have you learned to this point? In what areas do you feel you need to spend additional time and effort to reach mastery?</td>
</tr>
</tbody>
</table>
Activity #4: Anatomy of Question Formulation: A Case Study

A shared goal of the 5th grade team at High Expectations Middle School is to collaborate in designing instruction that will increase student performance in literacy skills, including reading, listening and speaking, and writing as well as deepen their understanding of issues related to the American revolutionary era. They arrived at this goal after a review of the 2011 assessment results for their school, the TEKS for both Social Studies and English/Language Arts, and a collaborative dialogue focused on student strengths and challenges in reading, analytical and inferential thinking. In particular, the team focused on the following TEKS from 5th grade Social Studies and Reading/ELA.

§110.16. English Language Arts and Reading, Grade 5, Beginning with School Year 2009-2010.
(b) Knowledge and skills.
(7) Reading/Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and provide evidence from text to support their understanding. . . .

§113.16. Social Studies, Grade 5, Beginning with School Year 2011-2012.
(b) Knowledge and skills.
(2) History. The student understands how conflict between the American colonies and Great Britain led to American independence. The student is expected to:
(A) identify and analyze the causes and effects of events prior to and during the American Revolution, including the French and Indian War and the Boston Tea Party;
(B) identify the Founding Fathers and Patriot heroes, including John Adams, Samuel Adams, Benjamin Franklin, Nathan Hale, Thomas Jefferson, the Sons of Liberty, and George Washington, and their motivations and contributions during the revolutionary period

As they begin to plan for a cross-disciplinary unit on the roots of the American Revolution, they work together to design an inquiry-driven unit on pivotal speeches and publications advocating independence from England. They agree to be intentional in aligning their questions with appropriate TEKS.

After considerable discussion, they craft the following essential question for this unit: **What role does oratory play in motivating citizens to action?** They believe this to be a question that has enduring value for students, not only as they pursue their academic courses of study but also as they participate in our democratic society.

The teachers decide to introduce this unit by engaging students in analysis of Patrick Henry’s famous 1775 speech to the 2nd Virginia Convention, in which he argued for the arming of the Virginia militia to fight the British. During their first planning session, they draft questions to use in the following stages of instruction: (1) pre-assessment, (2) guided instruction, (3) collaborative learning, (4) independent learning, and (5) a culminating discussion.
Pre-Assessment to Activate Prior Knowledge and Perspectives

One teacher suggests opening the first lesson with the following quote from this landmark speech:

Gentlemen may cry peace, peace—but there is no peace. The war is actually begun! The next gale that sweeps from the North will bring to our ears the clash of resounding arms! Our brethren are already in the field! Why stand we here idle? What is it that gentlemen wish? What would they have? Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take; but as for me, give me liberty, or give me death!—Patrick Henry

She thinks this concluding paragraph of his speech offers an opportunity to check student background knowledge of events surrounding the American Revolution as well as their understanding of the verbiage of this 18th century orator. Following are drafts of four questions they prepare to present to students for individual response using their personal response devices (“clickers”). The teachers will use results of these pre-assessments to plan future lessons, including differentiated designs.

1. Against whom was Patrick Henry encouraging his fellow Virginians to fight?
   a. The French
   b. The Indians
   c. The British

2. In which century did Patrick Henry deliver his speech?
   a. 20th
   b. 18th
   c. 12th

3. Henry asked: “Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery?” Which of the following words is closest in meaning to “liberty?”
   a. independence
   b. excitement
   c. happiness

4. Had you lived during the time leading up to the American Revolution, what position would you most likely have taken in the “war or peace” debate?
   a. I would have wanted to fight for my freedom.
   b. I would have chosen to remain loyal to the King of England.
   c. I would have wanted to do what my family and friends thought best.
Guided Instruction

The 5th grade ELA teachers will play the recording of Henry’s speech found at the Colonial Williamsburg website (http://podcasts.history.org/071111/LibertyorDeath.mp3) They will then ask the students to read a print version of selected portions of the speech, highlighting any word or phrase that they do not understand. The teachers will use student work products as formative feedback to plan a vocabulary lesson.

The team also frames questions to ask following the students’ reading of the speech. Students will work in pairs to formulate responses to the following question, projected on a screen:

1. **Identify words and phrases Henry used in his speech to appeal to the emotions of his audience. Talk about what each selected word or phrase means to you. Why do you think he used each of these words/phrases?**

As the students begin to work, teachers will remind them to record their ideas on Schoology, a web-based program to which all students and the teacher have access. After 5 minutes, the teachers will lead a class discussion to surface the words and phrases identified by students. They will ask students to point to the line in the text where their words/phrases appear. The teachers’ role will be to scaffold all students’ understanding of how Patrick Henry used language to impact his audience.

Next, teachers will write the second question on the board and “think aloud” about what the question is asking as well as offer one response in order to model what is expected. They will then afford students 10-12 minutes to look back through the text to begin formulating their paired responses to this question prior to engaging in whole class sharing.

2. **Patrick Henry offers a number of arguments to convince his audience that they need to act now, not wait for British soldiers to come to their homes. Identify one of these arguments, and find lines from the text of Henry’s speech that illustrate how he developed the selected argument.**

Collaborative Learning

Together the team drafted a question to be addressed in social studies, with the goal of engaging teams of students in thinking about the context in which Patrick Henry delivered his speech. Teachers planned to assign each collaborative team one of the following excerpts and facilitate the teams’ responses to the questions for investigation.

*Patrick Henry offers a number of arguments to counter those who want to wait before calling up and providing weapons to the Virginia militia. Your team will consider the argument made in either (a) or (b) below. [Teachers assign each team one of the following.]*

(a) “Has Great Britain any enemy, in this quarter of the world, to call for all this accumulation of navies and armies? No, sir, she has none. They are meant for us; they
can be meant for no other.”

(b) “Sir, we have done everything that could be done, to avert the storm which is now coming on. We have petitioned; we have remonstrated; we have supplicated; we have prostrated ourselves before the throne, and have implored its interposition to arrest the tyrannical hands of the ministry and Parliament. Our petitions have been slighted; our remonstrances have produced additional violence and insult; our supplications have been disregarded; and we have been spurned, with contempt, from the foot of the throne.”

For your team’s assigned excerpt, engage in the tasks below:

1. Locate your excerpt in the text. Talk together about what it means. As a group, rewrite your excerpt in contemporary language
2. As a team of four, talk about the questions below. Think about the resources that you might use to help respond to each question. Then assign one team member major responsibility for responding to each question.
   a. What specific events or activities might Patrick Henry have used as evidence to support this claim?
   b. Imagine that you were a political cartoonist who listened to Patrick Henry’s speech. Create a cartoon that would convey the argument made by Henry in this excerpt.
   c. Over what time period did the actions described by Henry in this excerpt occur? Make a timeline that Henry might have used as a visual to support this argument.
   d. Imagine that you were a loyalist who believed that the colonies should not revolt against Great Britain. How would you have responded to this argument by Patrick Henry?

3. Team members will have three class periods to work on their assignments. Each member is encouraged to seek advice and help from teammates as needed. On Day 3, each member will bring written response or a work product to class and present to team members, asking for their suggestions for improvement. The team will compile a portfolio containing all four responses for presentation to the class.

Individual (Independent) Learning

The team believes that the above activities will prepare students to engage in individual critical analysis and decides to give students some choice in selecting a piece of persuasive oratory to analyze. Students will be allowed to select this speech from any historical time period, including contemporary times. They will be instructed to search the www to identify potential speeches and to conference with their teacher about their final choice. Students will use MicroSoft Word to compose their essays, to be submitted to their teacher on Schoology. The question to which students will respond follows:

*Henry used persuasive oratory to express his passion and commitment to the cause of*
freedom. Identify an individual from the past or present who used oratory to persuade an audience to accept a particular point of view. You may wish to identify a speech highlighted in www.americanrhetoric.com/top100speechesall.html, a website that includes the “top 100 speeches of the 20th century,” or you may choose to use another print or electronic source. Your essay should answer the following questions:

1. **What is the big idea the speaker is attempting to communicate?**
2. **Identify the argument(s) that the speaker uses to convince his/her audience to accept this idea.**
3. **How does the speaker use language (e.g., figures of speech, particular word choices) to connect with his/her audience? Cite specific lines from the speech, and speculate as to how the speaker intended these to impact the audience.**
4. **Does the speaker succeed in persuading you to accept the point of view he/she is advancing? Why or why not?**

Teachers remind students to refer to the writing rubric they helped develop.

**Culminating Class Discussion**

The team plans a culminating class discussion focused on the guiding questions that follow. The teachers will provide the questions to students the day before the scheduled discussion and encourage them to develop their positions, including personal rationales prior to their class.

1. **Patrick Henry passionately urged his fellow Virginians to take up arms against England. Imagine that you are a member of the Second Virginia Convention. Which of his arguments would have had the greatest influence on you? Why?**

2. **Patrick Henry greatly valued personal and political freedom. He conveyed his strong beliefs in his speech to the 2nd Virginia Convention. If you were called upon to deliver a persuasive speech to your classmates, on what personal belief or value would you focus? Why is this value or belief important to you?**

The team talks about the importance of reminding students of the TEKS that relate to speaking and listening. Before the discussion, they agree to review expectations and norms.
Activity #5: Rewriting Questions to Improve Quality

**Directions:** In this three-part activity, you will explore how to word questions so that they are clearly focused, cognitively engaging, and understandable. In Part I, you will listen, as facilitators will provide direct instruction. In Part II, you will talk with a partner about how two revisions improve the quality of the question. Finally, in Part III, you will participate in the Pairs Check protocol as you learn collaboratively with a partner and another pair.

<table>
<thead>
<tr>
<th>Question</th>
<th>Quality Question (re-worded)</th>
<th>In what way(s) does the rewrite improve the quality of the question?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part I. Direct Instruction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Is 17 a prime number?</em></td>
<td><em>Why is 17 a prime number?</em></td>
<td><strong>It requires deeper thinking. Answer will give teacher more insight into student understanding of prime numbers.</strong></td>
</tr>
<tr>
<td><em>What were the major problems facing the United States that led to the Civil War, and how would life be different today if the southern states had not seceded?</em></td>
<td><em>A number of factors contributed to the Civil War. Which do you believe had the greatest impact, and why? <strong>AND/OR</strong> Imagine that the southern states had not seceded. How might today’s social, political, and/or cultural life in the U.S. be different? Justify your answer.</em></td>
<td><strong>The wording and syntax (structure) are more precise and understandable. The original question is double-barreled (i.e., asks students to think about two different issues concurrently, whereas each of the reworded prompts focuses on one issue.) The rewritten questions also take thinking to higher cognitive levels (i.e., from remember or understand to evaluate.</strong></td>
</tr>
<tr>
<td><em>Is Charlotte’s Web a fantasy? What makes it a fantasy?</em></td>
<td><em>A fantasy is a story in which magical things happen. With your partner, think together about whether or not Charlotte’s Web is a fantasy. Provide evidence from the book to support your answer.</em></td>
<td><strong>The rewritten question requires analytical thinking, calling for textual evidence. The 2nd original question is so open-ended as to be vague, and could be answered in 1-2 words.</strong></td>
</tr>
<tr>
<td>Question</td>
<td>Quality Question (re-worded)</td>
<td>In what way(s) does the rewrite improve the quality of the question?</td>
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<tr>
<td>What is the area of a rectangle that is 8 feet by 4 feet?</td>
<td>Imagine that you and a friend want to create a dog run, where his dog can play. You have 32 feet of fencing. Think of three possible shapes and dimensions for this dog run. Which do you think would be best for the dog and why?</td>
<td></td>
</tr>
<tr>
<td>Identify and describe two renewable energy sources.</td>
<td>Individual: Imagine you are designing a new house. Think of at least two examples of how you might incorporate renewable energy sources into your design. Group: Share responses and select two energy sources to explore further. Assign each group member responsibility for investigating one of these four variables for each of the selected energy sources: reliability, cost efficiency, energy efficiency, and environmental friendliness. Bring your findings to the group. Decide, based on information, which renewable energy source would be the best to include in your new house.</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Quality Question (re-worded)</td>
<td>In what way(s) does the rewrite improve the quality of the question?</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
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<tr>
<td>Do you think that Scout respected her father (Atticus Fitch)?</td>
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<tr>
<td>How would you go about constructing an argument to prove that most television news sources are biased and to determine why they hold their particular points of view?</td>
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</tbody>
</table>
Reading Prior to Activity #6

As you read the paragraphs below, think of one or more of the major ideas. Record them in the box with your name, on the following page.

Use of Student Responses

Student responses to teacher questions can provide teachers with formative feedback they can use to plan next steps in instruction. This happens if—and only if—teachers listen to understand the thinking behind a student’s answer—and pose follow-up questions such as “What made you say that?” or “I’d like to get behind your thinking.” or “Help me understand how you arrived at that answer/thought.” This does not happen when teachers merely evaluate a student’s answer as to its correctness and/or move on to another student in an attempt to get a “right answer.”

Student responses also provide teachers with opportunities to scaffold student learning by posing follow-up questions to help students correct misunderstandings or to deepen a correct understanding. Scaffolding is a powerful teaching strategy AND the most effective type of formative feedback to students in that it allows students to work out understandings and problems themselves.
**Activity 6: Four Square Share**

**Directions:** Organize into a group of four participants. Write the names of group members in the appropriate quadrant on the template below. Hint: Colleague #1 is the person to your right. (1) As you read the piece on the preceding page, identify key ideas. Summarize these in the upper left-hand quadrant of the template. (2) Identify a group manager who will keep your group’s sharing moving in a clock-wise manner and will ensure that each group member takes no more than two minutes to share key ideas. (3) As other group members share, record their ideas in their designated quadrants. (4) Following the round-robin sharing, each group member will work individually to summarize what she has heard into a one-sentence statement, which she will write in the designated area on the template.

<table>
<thead>
<tr>
<th>Your name:</th>
<th>Peer #1:</th>
</tr>
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<tbody>
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</table>

**Synthesis/Summary of Insights.**

<table>
<thead>
<tr>
<th>Peer #3:</th>
<th>Peer #2:</th>
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</table>
Activity 7: Scaffold Student Thinking and Learning—
Analysis of a Class Transcript

Directions:

I. Individual reading and analysis. Individually read the transcript of 5th graders’ responses to one of the questions in the case study we looked at earlier. As you read, highlight examples of scaffolding that occurred during this discussion. Be ready to share with colleagues.

Gentlemen may cry peace, peace—but there is no peace. The war is actually begun! The next gale that sweeps from the North will bring to our ears the clash of resounding arms! Our brethren are already in the field! Why stand we here idle? What is it that gentlemen wish? What would they have? Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take; but as for me, give me liberty, or give me death!—Patrick Henry

The teacher has posted the Focusing Question on the white board: Patrick Henry passionately urged his fellow Virginians to take up arms against England. Imagine that you are a member of the Second Virginia Convention. Which of his arguments would have had the greatest influence on you? Why?

Teacher: “Jenny, please read the focusing question for today’s discussion aloud.” [Jenny reads the question.]

Teacher: “I would like for everyone to take a minute to think about two things: (1) What is the question asking? and (2) What is your response? You may want to jot down your ideas. Please work silently.”

[Teacher waits 1 minute.]

Teacher: “Tisha, would you tell me in your own words what you think the question is asking?”

Tisha: “Yes. It’s asking us to imagine that we were members of the convention in Virginia that was meeting to decide whether or not to fight England—and to decide what Patrick Henry said that would have caused us to want to fight.”

Teacher: “Thank you, Tisha, that is exactly what the question is asking. So, let’s see what you are thinking. [pauses 3 seconds] Michael.”

Michael: “I think I would have agreed with Patrick Henry.”

Teacher: “Tell me exactly what you agree with.”
Michael: “He said he would rather die than not be free—and I would be willing to die for my freedom, too.”

Teacher: “Can you find evidence in the text to support your idea that freedom is worth fighting for?”

Michael: “Well, in the line where he says ‘but as for me, give me liberty, or give me death.’”

Teacher: “That is one piece of evidence. Is there another place in the text you can find support for your inference?”

After a 5 second pause, Michael says: “Uh, I really don’t know.”

Teacher: “I can find another line that supports Michael’s response. I’d like for everyone to go back to the text and find another sentence that supports Michael’s argument: that Henry believed freedom is worth fighting for.” [pause] “Sally, what evidence have you identified?”

Sally: “I believe it’s when he says ‘Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery?’”

John: “I have a question. I didn’t know that the colonists were in chains or that they were slaves—at least I didn’t think that Patrick Henry and George Washington and those dudes were slaves. I know they owned them, but I don’t think that’s what he meant.”

Sally: “John, he’s using this as a figure of speech.¹ Don’t you remember we learned about those in our language arts class from Ms. Jones? I think he’s talking about the colonists not having a say-so in their taxes, and about England sending soldiers to tell people what to do.”

Teacher: “How many of you agree with Sally—that the people to whom Patrick Henry was talking were not in ‘chains and slavery’? Give me a thumbs up if you agree.”

[All students give a thumbs up.]

Teacher: “So why do you suppose Henry used this figure of speech, ‘chains and slavery,’ if his audience members were not actually slaves? Turn and talk to your partner for today about this question.” [Teacher affords 2 minutes for student talk and walks around listening in to the student conversations.]

¹ “Demonstrate understanding of figurative language, word relationships, and nuances in word meanings” is an important skills related to vocabulary acquisition and use.
Teacher: “I heard a portion of John and Will’s conversation. They had an interesting theory. Would you share that with us, John?”

John: “We think that he was just trying to get them worked up. You know, he was appealing to their emotions. Maybe he wanted to make them afraid that they would be in chains if they didn’t vote to go to war.”

Teacher: “I think that is a reasonable inference. As I was reflecting on his use of this phrase, I was thinking that he wanted his audience to visualize themselves in chains. So that could cause a lot of emotional responses. Fear is certainly one of them.

“OK, so let’s recap what you’ve shared. Michael said that Patrick Henry’s argument about liberty would have most influenced him, and we’ve analyzed the way Henry made that argument—how he used language to influence his audience. Is there another reason Henry believes the Virginia Convention should vote to arm their militia to fight against England? [Teacher pauses 5 seconds; students look puzzled.] Let’s take another look at the text.”

Maria: “Well, we haven’t talked about the first few sentences where he says that the war has already begun. [pause] And he says, ‘our brethren are already in the field.’ [pause] Umm, I don’t know what he means by that. I don’t even know what brethren means.”

Nika: “Uh, I think I know what brethren means because our preacher uses that word a lot. I think it means something like brothers, but not relatives; you know, our friends and neighbors.”

Teacher: “Let’s look up the word in the dictionary. Hal, will you do that? Meanwhile, let’s take a poll. If you agree with Nika, raise your hand. [all hands go up] ”

Hal: “I found it, and Nika has the right idea. The dictionary says: ‘used chiefly in formal or solemn address in referring to the members of a profession, society, or sect.’—and a sect IS a religious group.

Susan: “I don’t think Patrick Henry is talking about religion. I think he’s talking more about society, and he mentions the North. I mean he’s from Virginia, and we know that it was the colonists in Boston who got it all going with the Tea Party. So I think he’s saying that the British are already fighting Americans in other colonies, and they may invade Virginia.”

Maria: “That’s what I was thinking. Patrick Henry was saying that the British are already fighting other colonists, so the Virginians had better get ready.”

[The teacher helps the class consolidate their thinking regarding this question. She then poses the second question to advance their thinking about liberty or freedom.]
II. Sharing with Colleagues

a. Assign the following group roles: facilitator, timekeeper, recorder, and materials manager. Share-around examples of scaffolding identified by individual group members. Record these examples on easel paper as group members share.

b. When all members’ ideas have been surfaced, group your examples into “like” categories. Be ready to share your group product.
Classroom Response Systems

If questions are to serve as effective formative assessment, they must engage all students in thinking and forming an answer—and teachers must use response strategies that promote this end. This means a move away from the traditional Initiate-Respond-Evaluate (IRE) model where a teacher asks a question, calls on one student to answer, evaluates that student’s answer as to its correctness and moves on. Most commonly, the responding student is a volunteer who raises his/her hand to answer.

Quality questioning uses the following kinds of response systems to engage all students in thinking and answering:

• In whole-class settings, the teacher asks a question, pauses 3-5 seconds to afford all students an opportunity to form their answer to the question, and then calls on a student randomly. A “no hand-raising” policy governs classroom responding, and students have been taught what to do with the think time after the question is asked. Oftentimes, the teacher uses signaled responses to find out peer agreement or disagreement with an answer. When appropriate, the teacher scaffolds incorrect or incomplete answers—and always provides formative feedback that is useful to the responding student and to the entire class.
• The teacher routinely uses paired responses (e.g., Think-Pair-Share, Turn-and-Talk) to engage students in thinking out loud to a peer about their answer and learning from that peer.
• The teacher uses more complex collaborative response formats (particularly during the “y’all do” stage of the lesson) to support student dialogue leading to deeper understandings.
Activity #8: Collaborative Thinking About Response Decisions—
Interview Design

I. Asking and Answering Questions.
   1. In your table group, number off 1-4 to determine who will be asking each of the questions listed on the next page.
   2. Read your question to be certain that you understand it.
   3. Now, stand up with the handout packet turned to the questions on the next page, a pen or pencil, and a book that you can use to bear down on as you write.
   4. You will now ask your question of four individuals at your table (who were in the different 1-4 set from you) and you will, in turn, answer their questions. Follow the pattern below: Facilitators will call time at the end of each round, announcing new pairings—which will also be displayed on the screen.
      Round One: #1 white-#1 blue; #2 white-#2 blue; #3 white-#3 blue; #4 white-#4 blue
      Round Two: #1 white-#4 blue; #2 white-#1 blue; #3 white - #2 blue; #4 white - #3 blue
      Round Three: #1 white-#3 blue; #2 white-#4 blue; #3 white; #1 blue; #4 white-#2 blue
      Round Four: #1 white-#2 blue; #2 white-#3 blue; #3 white-#4 blue; #4 white-#1 blue

II. Summary of Responses.
   1. Each pair (of 1’s, 2’s, 3’s, and 4’s) at a table should find one or two other pairs who asked the same question as they. Hold up your numbered card to cue colleagues at adjoining tables.
   2. Sit down with ad hoc group, and name a facilitator.
   3. Compare your responses, identifying the most frequently mentioned as well as outliers.
   4. Someone in each pair creates a consolidated list to use in reporting back to home table.

III. Sharing of Responses.
   1. Return to your home table.
   2. Name a facilitator and timekeeper.
   3. Each pair will present findings related to their assigned question—accepting comments or questions from “listening” peers.
   4. When pair sharing has been completed, facilitator leads table team in discussion focused on this question: What insights have we gained into how decisions about the use of different response formats affect student engagement with teacher questions?
Questions for Interview Design

1. Many thought leaders recommend that teachers adopt a “no hand raising policy [EXCEPT to ask a question] during classroom questioning sessions.
   a. What potential problems or barriers might teachers encounter when implementing this policy?
   
   b. How might teachers address these problems or barriers?

2. Paired response formats such as Think (or Write)-Pair-Share or Turn-and-Talk can be used at strategic points in a teacher-led lesson to engage students in thinking and processing content that has been presented.
   a. What potential benefits might result from the use of this strategy?
   
   b. Based upon your experience, what suggestions can you make regarding the use of these types of paired conversation protocols?
3. **Collaborative response strategies such as Affinity Mapping afford students opportunities to think and learn collaboratively. Think back to our use of this strategy earlier in this session.**
   a. What types of thinking did this protocol nurture?

   b. What were the benefits or “positives” of the protocol?

4. **Numerous academic and social benefits can result from collaborative small group responses to questions; however, if small groups are to engage in productive conversation, certain conditions must be in place.**
   a. In your view, what are the requirements for effective collaborative group conversation?

   b. What are some of the most frequent problems you observe with such collaborative group conversations?
Activity 9: Guidelines for Effective Feedback—*Jigsaw of Four Tools Related to Feedback*

**Directions:** Form pairs at your table. Number off pairs from 1-4. As a pair, read the tool that corresponds to your number, e.g. 1 reads Tool #1. After reviewing the tool, talk together as partners about what you have read:

- How might you use it for your work in the classroom?

- How might you share it with other teachers in your school?

- What would be the benefit to students of using such a tool?

When time is called, share around the table so that others learn about the tool you reviewed and discussed.
Tool #1: Characteristics of Effective and Ineffective Formative Feedback

<table>
<thead>
<tr>
<th>EFFECTIVE FEEDBACK</th>
<th>INEFFECTIVE FEEDBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describes a student’s status in relationship to the learning target; gives specific and descriptive examples</td>
<td>Is evaluative, and may be vague or general</td>
</tr>
<tr>
<td>Connects to criteria that have been previously communicated to students or that students have helped to develop</td>
<td>Is based on teacher discretion; is not linked to specific criteria</td>
</tr>
<tr>
<td>Involves students actively</td>
<td>Is directed and controlled by the teacher</td>
</tr>
<tr>
<td>Uses words carefully in a helpful, positive tone</td>
<td>May be misinterpreted or taken as criticism</td>
</tr>
<tr>
<td>Includes suggestions for how to improve</td>
<td>Provides no suggestions for ways to improve</td>
</tr>
<tr>
<td>Is timely</td>
<td>Is delivered too late to make a difference</td>
</tr>
</tbody>
</table>

Describe a student’s status in relation to the learning target; give specific and descriptive examples. Formative feedback answers the question Where are you in relationship to the learning target? This is the question that helps a student identify where she is compared to where she hopes to be. Effective feedback is not evaluative; that is to say, formative feedback does not merely convey whether a response is correct. Rather, it is descriptive, meaning it refers specifically to some component of the student’s answer. Your comment indicates that you considered the perspectives of both of the major characters provides information about what the student did that met established criteria. Evaluative comments such as Good thinking or This is an incomplete response are so general that they don’t help students know what part of their response is acceptable or what they need to do to improve. Probes can help both the teacher and the student learn more about the student’s progress toward a learning goal. For example, if a teacher says, Tell me how you verified the reliability of the information that came from the Internet, both can learn something about the student’s skill in identifying valid sources.

In a study of third-grade classrooms, the majority of positive teacher feedback statements were vague and lacking in specific examples. Very good was a typical teacher comment in response to a student answer. In sixth-grade math classes, the same trend was found. This type of response does not constitute effective feedback. Also, researchers have discovered that when teachers included specific feedback with examples of what students did correctly, student self-efficacy improved (Huebner, 2009, p. 91).

Connect to criteria that have been previously communicated to students or that students have helped to develop. Teachers who understand the importance of feedback will have helped students as they translated the learning target into student-friendly

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words. By knowing the learning targets, students understand the criteria by which their responses will be assessed; this information positively impacts student achievement (Marzano, 2007, p. 104).

The practice of aligning questions and resultant feedback with learning targets is essential if we want feedback to result in improved student performance. Unfortunately, the lack of well-defined learning targets makes this practice uncommon in schools. For example, if a teacher focuses questions and feedback on discrete facts or bits of knowledge, students may be able to regurgitate the facts but be unable to make connections between and among disparate facts. Thus, opportunities for true learning are lost. What was the intended learning target? What type of thinking or cognitive processing is required to attain this target? If students never receive feedback on their thinking or analytic skills, they are unlikely to improve in this area.

**Involve students actively.** Quality questioning—whether used during class recitations or discussions—engages students in thinking. Questioning can also be used in conjunction with students’ completion of a written assignment. Questions are an ideal way to prompt student reflection and thinking about written work products. For example, if a student has produced a pie chart to demonstrate an answer to a social studies question, a teacher might help the student think about alternatives by asking, *How else could you display the data?* Once the student responds or produces an alternative illustration, the teacher might continue, *Which of these explains the data better? Which would be easier to understand, and why?* The most powerful questions engage students in self-assessment. For example, when a teacher asks a student to rethink the question and/or reflect on his answer, the teacher is inviting the student to self-assess and self-correct. We should aspire to this type of student involvement in assessment and feedback.

**Use words carefully in a helpful, positive tone.** Teachers know the value of using words that demonstrate respect, never belittling students or using sarcasm, even in a joking manner. How students interpret the feedback—not how it is intended—determines whether it will have a positive impact on achievement. When feedback is discouraging, student achievement decreases (Marzano, 2007, pp. 104–105). Monitor student nonverbals to determine if they understand and are processing your feedback. Never use false praise; most of the time, students know when teacher praise is genuine.

**Include suggestions about how to improve.** To be helpful to student performance, feedback needs to identify what, specifically, students did well and offer discrete suggestions as to how students can improve. “In the classroom, providing students with information about particular qualities of their work and about what they can do to improve is crucial for maximizing learning” (Pellegrino, Chudowsky, & Glaser, 2001, p. 8; emphasis added). Interestingly, Hattie (2009) describes findings from a meta-analysis by Kluger and DeNisi specific to feedback. They found that “feedback is more effective when it provides information on correct rather than incorrect responses” (p. 175). Our reading of this finding is that we are more effective when we build upon what the student knows and can do, making suggestions that will enable the student to connect suggestions for
improvement to existing skills or knowledge. If we offer suggestions that seem foreign to the student because she has no background for understanding them, the feedback is likely to fall on deaf ears.

Be timely. There is universal agreement that feedback must be timely if it is to be useful; that is, the feedback should be communicated to the student as close to a student’s response to a question or problem as possible—but not before three to five seconds of wait time! This is one of the reasons that classroom questioning, when effectively managed, is such a powerful type of formative assessment: The feedback following a student response can be immediate.
## Tool #2: Guidelines for Assessing Student Answers

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Thinking</th>
<th>Communication Skills</th>
<th>Responses to Follow-Up Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates a solid understanding of the content of the question.</td>
<td>Makes connections between prior knowledge and the question content.</td>
<td>Speaks clearly.</td>
<td>Formulates a correct answer to prompts from teacher or peers.</td>
</tr>
<tr>
<td>Includes correct and complete facts, concepts, and/or procedures.</td>
<td>Answers at the cognitive level of the question posed.</td>
<td>Projects voice so all can hear.</td>
<td>Extends or elaborates on initial answer when invited to do so.</td>
</tr>
<tr>
<td>Uses appropriate vocabulary and terminology.</td>
<td>Demonstrates thinking by questioning answers (of self and of peers), extending thinking of self and others.</td>
<td>Speaks to entire class, not to the teacher only.</td>
<td>Corrects initial answer (if incorrect) when afforded time, feedback, or prompts.</td>
</tr>
<tr>
<td>Asks clarifying questions, if necessary.</td>
<td>Relates answer to previous student and teacher comments as appropriate.</td>
<td>Uses complete and grammatically correct sentences.</td>
<td></td>
</tr>
<tr>
<td>Defends response if questioned by peers or teacher, by giving examples or evidence.</td>
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<td>Organizes and sequences words so that meaning is clear.</td>
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### Tool #3: Teacher Feedback to Prompt Thinking

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<thead>
<tr>
<th>TYPES OF TEACHER PROMPTS</th>
<th>USE WHEN</th>
<th>EXAMPLES</th>
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</thead>
<tbody>
<tr>
<td><strong>Affirming correct facts or procedures</strong></td>
<td>1. Answer is completely correct</td>
<td>1. “Your description of the setting for the story makes me feel as if I am there.”</td>
</tr>
<tr>
<td></td>
<td>2. A portion of the response is correct</td>
<td>2. “You are correct when you state that nutrition affects health. What other factors contribute to good health?”</td>
</tr>
<tr>
<td><strong>Questioning to expose and get behind thinking</strong></td>
<td>1. Answer is not the “expected”</td>
<td>1. “You said that you would judge Richard Nixon to be one of our greatest Presidents. On what criteria are you basing this judgment?”</td>
</tr>
<tr>
<td></td>
<td>2. Answer is vague</td>
<td>2. “You stated that the U.S. entered WWII because we felt threatened. What particular event occurred that heightened this feeling?”</td>
</tr>
<tr>
<td><strong>Questioning to elicit extension or expansion of thinking</strong></td>
<td>1. Answer is partially correct</td>
<td>1. “You have correctly identified two branches of our federal government. Do you remember the name of the branch that ‘interprets the Constitution?’”</td>
</tr>
<tr>
<td></td>
<td>2. Answer is correct, but reasoning is not at the cognitive level of the question</td>
<td>2. “Do water and soda have different boiling points? That is a question around which we could set up an experiment. However, I asked you to propose an experiment that would ‘test’ whether the boiling points of two liquids are the same or different. Tell me what you might do to answer your question about water and soda?”</td>
</tr>
<tr>
<td></td>
<td>3. Answer to initial question is correct, but questioner wants to elicit thinking about the content at an even higher cognitive level</td>
<td>3. “You’ve accurately portrayed the similarities and differences between these two characters. Now, can you speculate as to why this author developed two such similar character types in this story?”</td>
</tr>
<tr>
<td><strong>Questioning that invites</strong></td>
<td>1. Facts or procedures are incorrect, and</td>
<td>1. “You stated that you would first add to find the total number of miles traveled. That’s correct.”</td>
</tr>
<tr>
<td><strong>Responder to identify and correct erroneous facts or mistakes in reasoning</strong></td>
<td><strong>Questioner wants to give responder a chance to self-correct</strong></td>
<td><strong>Now, remember, you are trying to calculate the average speed or MPH traveled on this three-hour trip. Talk me through what you’d do after you’ve calculated the total miles traveled.”</strong></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
</tr>
<tr>
<td>2. Reasoning is faulty, and questioner wants to “walk” responder through a chain of logic</td>
<td>2. “Let’s think through this together. You began by stating that you would find the radius of the circle. Can you tell me in your own words what is meant by ‘radius’?” [Student provides definition.] “OK. That’s correct. So tell me: what is the radius of this circle?” [Student realizes that he’s using the diameter instead of the radius in his solution and corrects this error.] “Yes. That was one error in the solution. Now let’s look at …”</td>
<td></td>
</tr>
<tr>
<td><strong>Providing correct facts or procedures; poses question that allows responder to apply</strong></td>
<td><strong>Responder is unable to self-correct, and questioner wants to provide correct answer</strong></td>
<td>“I think you’ve confused two terms. Simile is the word we use when talking about one object being like another. So can you create a simile that uses ‘a rainy day’ as the opening phrase?”</td>
</tr>
</tbody>
</table>
Tool #4: Alternatives to Feedback during a Discussion

In a discussion with students, direct teacher feedback can stifle student thinking. If a teacher responds to a student, “I like the direction of your thinking. Say more about that” students can be influenced by what the teacher “likes.” Other students might begin to pursue that line of thinking rather than exploring their own. In a discussion in which there is no one correct answer, teachers want to hear from every student. Use one or more of these alternatives to encourage all students to participate and express their own views.

<table>
<thead>
<tr>
<th>1. Make a simple declarative statement.</th>
<th>Not everything you find on the Internet is true.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Paraphrase what you heard the student say.</td>
<td>So you think that...(paraphrase student statement).</td>
</tr>
<tr>
<td>3. Describe your state of mind.</td>
<td>I’m confused about what you’re saying.</td>
</tr>
<tr>
<td>4. Invite the student to elaborate.</td>
<td>I think we would all understand better if you would give some examples</td>
</tr>
<tr>
<td>5. Invite the student to ask a question.</td>
<td>What questions do you have about this topic? Do you need to ask a question to clarify your thinking?</td>
</tr>
<tr>
<td>6. Invite the class to ask the student a question.</td>
<td>What questions do you have about what Carla said?</td>
</tr>
<tr>
<td>7. Be deliberately silent.</td>
<td>Use Wait Time 2. Use signals so other students also wait before responding.</td>
</tr>
</tbody>
</table>

Processes to Engage Learners in Thinking

1. Affinity Mapping

**Purpose:** Engages students in analyzing data to identify relationships and create conceptual categories.

**Preparation:** Prepare a question that will generate many responses from students. Provide each student with sticky notes and a pen or pencil. Provide each group of students with a large piece of paper (e.g., butcher, flip chart, or poster board).

**Facilitation:** Ask students to respond to the question (individually or in pairs) by writing each response on a separate sticky note. After allowing sufficient time for generating ideas, ask each group to post its sticky notes on a large piece of paper. Direct them to look for related ideas and to form clusters of sticky notes. Ideas can be grouped and regrouped by any member of the team, as each looks for commonalities among ideas. Sticky notes can be moved numerous times until group members feel satisfied that they have created meaningful concepts or clusters of ideas. As a last task, each group should name each cluster of ideas. As groups share with the larger class, look for how many groups came up with similar categories. Did they find different ways to consolidate ideas?

**Sample questions:**
- History: What have been the main causes of conflict between countries?
- Mathematics: How do we use fractions in everyday life?
- Metacognition: How do you learn best?

2. Jigsaw

**Purpose:** Provides a structure for cooperative group learning, whereby students learn from one another. Encourages students to take responsibility for their own learning as each assumes the role of teacher for his or her small group.

**Preparation:** Identify a reading or several readings around which to organize Jigsaw. Create worksheets for each expert group. At a minimum, such worksheets should include the page numbers for the assigned reading, questions to think about and discuss with other members of the expert group, and suggestions for organizing a presentation to be made to the home groups.

**Facilitation:** Organize students into heterogeneous “home groups.” Describe the Jigsaw process and be sure that each student has an assignment. (Note: If there are five different concepts or readings, home groups will be composed of five students, each of whom assumes a different assignment.) Like a jigsaw puzzle, in which every piece is necessary to complete the picture, the home group is composed of five students, each of whom becomes an expert on
one portion of the assignment, learning with others in an “expert group” composed of other
students with the same assignment. After learning, all students return to their home groups to
teach other members. Without every member, the learning is incomplete.

As students begin in their home groups, distribute the readings and assign one to each student
or allow each student to select his or her assignment. Ask students to reorganize so that they
meet in expert groups (i.e., with other students who have the same assignment). They will
read the assigned material as indicated on the worksheet; discuss questions, as outlined; and
prepare to share their learnings with others in their home groups. After sufficient time,
students return to their original home groups in order to teach one another what they have
learned.

Debrief the process with the class:
- Did you like this method of learning? Why or why not?
- Did every member of your group assume responsibility for the group’s learning? What
  is evidence of that responsibility?
- How would you improve this strategy?
- Did you learn more or less from other students—compared to what you typically learn
  from the teacher? Why might this be?

3. Round-Robin Sharing

**Purpose:** To ensure equitable opportunity for students to share in a group.

**Facilitation:** After students have individually generated ideas to a pre-determined
prompt, ask them to go around the group, each sharing one of his ideas, and moving to
the next person in order. Continue in this way until all ideas have been shared.

4. Give One, Get One

**Purpose:** To provide a structured opportunity for student to share ideas in pairs. The
strategy builds responsibility and offers each student the opportunity to teach others.

**Preparation:** Prepare an open-ended prompt, to which many correct answers are
appropriate. Provide students with a pen and paper or index card on which to write
individual answers.

**Facilitation:** Present the question to students and allow time for each to respond
individually on a paper or card. Encourage each student to write at least three ideas.
Once they have written a few ideas, ask each student to find a partner. Each shares one
or more ideas. When a student hears an idea that she didn’t already have on her list, she
will assess it’s accuracy, and add it to her list. Allow enough time for students to move to
three or four partners, adding ideas to their original lists.
5. Interview Design

**Purpose:** Engages all class members in asking and answering a set of questions in a one-on-one setting; students gather and summarize information and perceptions from other students in an equitable and risk-free manner. Provides practice in posing questions and in using quality questioning strategies.

**Preparation:** Prepare four questions of equal complexity around the topic of interest. Label the questions A through D. Create a handout with each question written on the top; make enough copies so that a fourth of the class will get question A, a fourth will get question B, and so forth. Arrange the room so that there are several sets of eight chairs (a row of four facing a row of four), with enough chairs for all students.

**Facilitation:** The Interview Design process encompasses two phases:

*Phase 1: The Interviews.* After students are seated in the rows, review the process of interviewing:
- Ask with interest in the response
- Use wait time
- Record what is said
- Probe, as necessary, to get behind the other’s thinking (e.g., *Can you give an example? Can you say more about that?*)
- Refrain from making evaluative comments

In each row of four chairs, assign each student one of the four questions, A-D; assign each student’s “partner” (the person in the facing chair) the same question, so that question A faces A, B faces B, and so forth.

Allow a few minutes for the partners to ask and answer their assigned question. Then, within each set of eight chairs, have one row of four participants remain seated while those in the facing row move in the following order: the person on one end of the moving row gets up and walks to the other end of the row, and the others in his row each move down one seat to let him sit in the end chair. Allow time for the new partners to ask one another their questions, and then have those in the moving row move again. Continue this pattern until every person in each row has answered all four questions—and has asked his or her question to each of the people in the facing row.

*Phase 2: Summarizing Data.* Students gather with others who asked the same question (all the A’s in a group, all the B’s in a group, etc.). As a group, they read the responses they collected and create a summary. One member of the group, the recorder, writes down the major ideas and shares results with the large group.

**Tips**
1. Provide context for each question by prefacing it with a statement or quote.
2. Use a timer and call time so that each person has the opportunity to pose a question and respond before the group moves.
3. Make accommodations, when the size of the group isn’t evenly divisible by the number of questions, by adding a person to either end of one of the nonmoving rows.
4. After some experience with the interview process, have cooperative groups formulate a question to use during the process, collect data from peers, summarize their findings, and prepare a report to the rest of the class.

6. Four-Square Share

**Purpose:** This protocol engages four students in interaction around a common text and uses the note-taking template below to provide for individual accountability.

**Facilitation:** Organize students into groups of four, providing a template for each student. Each student writes his/her name in the upper left quadrant of the note-taking template and records the name of one other group member in each of the other quadrants. All students read a designated passage and take personal notes in the space provided. Then, in a round-robin fashion, each student shares personal comments while peers listen and take notes in the appropriate quadrant.

Following the round-robin conversation, each student individually summarizes the big ideas in a single sentence and writes this in the designated place in the center of the handout. The teacher collects individual note-taking sheets and identifies where each student is in his or her learning—providing feedback, as appropriate.
7. Say Something

**Purpose:** Helps learners process a reading, increases comprehension by allowing readers time to think through a passage by talking about it, and creates connections by having learners connect a reading passage with prior knowledge.

**Preparation:** Identify a short reading that is on a topic of interest and that might stimulate discussion and dialogue.

**Facilitation:** Direct students into pairs and provide each with a copy of the reading passage. Give instructions: *I’ll ask you to read a short passage. As soon as you have finished, turn to your partner and “say something” about what that passage means to you. Then listen as your partner “says something” to you about the same passage. There are no right or wrong things to say; you may ask a question, agree, or disagree with the reading. Assign a part of the reading. After participants have read and talked, call time. Give them another passage. Continue until the passage has been completed.*

**Tips**

1. This activity works very well with a bulleted list of items. Ask students to read two or three of the bulleted items and talk about them; then assign another two or three. Continue until they have read and discussed the entire list.

2. Alternatively, a series of four or five thought-provoking quotes works well. Ask students to read and say something about the first quote. Continue to call time and assign a new quote until they have read and discussed them all.
## Looking Back at Engagement Protocols Used in TTQQ Session

<table>
<thead>
<tr>
<th>Process and Description</th>
<th>Value to You in Your Role as Learner</th>
<th>Potential Classroom Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affinity Mapping</td>
<td></td>
<td></td>
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<tr>
<td>Jigsaw to review Framework</td>
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</tbody>
</table>
References


Thinking Through Quality Questioning

Sponsored by:
Salesmanship Club Youth & Family Centers
February 3, 2012

Jackie A. Walsh & Beth D. Sattes, Facilitators

Welcome!

- Please sit at tables in groups of 8. This will enable you to meet other colleagues and will help make this interactive design work!

Essential Question

How can quality questioning enhance teacher and student thinking and learning?
Guiding Questions

1. In what ways can shifts in classroom norms support enhanced student thinking and learning?
2. What are the dimensions of questions that catalyze student engagement and thinking?
3. How can teachers use student responses to move learning forward?
4. How does the choice of response format enhance the engagement and thinking of all students?

PART I

QUESTIONING TO PROMPT STUDENT THINKING AND LEARNING

How is Thinking Related to Questioning?

What? Affinity mapping
Why? Activate prior knowledge about thinking; share with colleagues; relate thinking to questioning
How? Respond individually to the prompt, p. 3, writing one idea per sticky note. Directions for sharing and analysis are in the Activity Packet.
Framework for Thinking Through Quality Questioning

Overview of the TTQQ Framework

**What? Table-team Jigsaw**

**Why?** To understand the organizing framework of thinking through quality questioning through reading and interacting with colleagues.

**How?** Select a component of the framework (1-5) from index cards on your table; read the description (pp. 5-7); share main ideas with colleagues. Look for matches and/or additions to affinity map. (See page 4 in Activity Packet for directions.)

Individual Reflection

- What insights have you gained about questioning behaviors that support student (and teacher) thinking and learning?
Create a Culture for Thinking

Norms to Create a Culture for Thinking and Learning

Classroom Norms
- Purposes of Questioning
- Wait Times
- Participation

Analyzing Classroom Norms Related to TTQQ

Why? To think together about the value of classroom norms related to questioning, considering how they might promote student thinking and learning.
How? With a partner, read through each set of norms and record at least one implication for student learning for each set of norms (middle column, page 8). Share with others (per directions p.9), exchanging ideas. Commit to how you might use.
Frame Quality Questions

- Determine content focus.
- Consider instructional function.
- Stipulate expected cognitive level.
- Match to social context.
- Polish grammar and word choice.

Content Focus

- **Aligned** with learning goals? (Rigor)
  - Promotes identified content standard(s)
  - Related to identified student learning target
- **Addresses** student needs, interests, and experiences? (Relevance)
  - Within students’ zone of proximal development
  - Related to real-world experiences
- **Connected** to other concepts in subject under study or to other subjects? (Relationships)
Purposes for Questioning

“\textit{I suggest that there are only two good reasons to ask questions in class: to cause thinking and to provide information to the teacher about what to do next.}”

\textit{—Dylan Wiliam, Embedded Formative Assessment, p. 79}

What instructional function is the question intended to further? (pp. 10-12)

- Essential Question (integrating unit or lesson of study)
- Hook Question (motivating/engaging)
- Diagnostic Question (activating prior knowledge/conceptions)
- Check for Understanding (formative assessment)
- Probing/scaffolding (getting behind student thinking; assisting in concept development)
- Inference Question (drawing conclusions)
- Interpretation Question (inviting analysis)
- Transfer Question (using in novel settings)
- Predictive Question (strengthening cause & effect thinking)
- Reflective Question (supporting metacognitive thinking)
Expected Cognitive Level

• At what level of thinking will the question engage students?
• Taxonomies and frameworks serve as tools for teachers as they plan for and formulate quality questions.
  – Examples:
    • Revised Bloom Taxonomy
    • Webb’s Depth of Knowledge

The Original Bloom Taxonomy

<table>
<thead>
<tr>
<th>Knowledge Dimension</th>
<th>Cognitive Process Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facts</td>
<td>Remember</td>
</tr>
<tr>
<td>Concepts</td>
<td></td>
</tr>
<tr>
<td>Procedures</td>
<td></td>
</tr>
<tr>
<td>Metacognition</td>
<td></td>
</tr>
</tbody>
</table>
Cognitive Process Dimension

1. Remember
2. Understand
3. Apply
4. Analyze
5. Evaluate
6. Create

See pp. 12-18, Chapter 2, Thinking through Quality Questioning

Anatomy of Question Formulation—A Case Study

What? Think-alouds related to the formulation of selected questions from a Case Study (pp. 13-17) that describes the collaborative planning of questions for a unit

Why? To illustrate the five dimensions of quality questions

How? Listen to facilitators think aloud about two selected questions, following along in the case study to understand the context in which the questions were prepared

Question for Analysis

Patrick Henry offers a number of arguments to convince his audience that they need to act now, not wait for British soldiers to come to their homes. Identify one of these arguments, and find lines from the text of Henry’s speech that illustrate how he developed the selected argument. (p. 15, Activity Packet)
Content Focus

Aligned with ELA/Reading, Grade 5 TEK
“Reading/Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and provide evidence from text to support their understanding. . . “ (p. 13, Activity Packet)

Instructional Function

Check for Understanding (formative assessment): The purpose is to determine if students understand the passage and know how to identify an argument and find evidence in the text to support the argument. (Check for both reading comprehension and text analysis)

Cognitive Level

Analysis—Requires students to break apart the text in order to identify an argument and textual evidence to support it
Social Context

**Paired Response.** Students will have an opportunity to read and think about the passage individually (THINK); then, turn to a partner and share their ideas, delving deeper into the question and comparing responses (PAIR). Finally, the teacher will call upon selected pairs to share their thinking with the whole class (SHARE).

Wording and Grammar

- Notice the first declarative sentence that sets the context for student thinking.
- The actual prompt (“Identify one of these arguments, and locate . . .” ) is clear and straight-forward.

2nd Question for Analysis

*Patrick Henry passionately urged his fellow Virginians to take up arms against England. Imagine that you are a member of the Second Virginia Convention. Which of his arguments would have had the greatest influence on you? Why?*  
*(p. 17, Activity Packet)*
Content Focus

- Aligned with Standards:
  - Social Studies, grade 5
  - ELA/Reading, grade 5
- Relates to students, eliciting personal point of view

Instructional Focus

- Interpretation, requiring personal engagement with the content

Cognitive Level

Evaluate—requires students to identify and apply personal values (criteria) to make a judgment

Social Context

Individual preparation for whole-class discussion

Wording & Grammar

- First two sentences set a clear context for thinking.
- The first question calls for an assessment; the 2nd question requires that students provide criteria for judgment and a justification for their point of view
Quick Review of Case

• Skim through the case (“Anatomy of a Question”, pp. 13-17) noting the kinds of questions associated with varying stages in the learning cycle.

• What can you infer about quality questions from this review?

Activity #5: Analyzing and Editing Questions

What? Rewriting Questions to Improve Quality

Why? To apply criteria for quality questions to the editing of questions to reinforce the characteristics of QQ’s and to provide samples or exemplars to support learning

How? Facilitator modeling, pair conversation, and Pairs Check, following directions on pp. 18-20 of Activity Packet.

How Does the Rewording Improve the Question?

Part I: Direct Instruction (Facilitator Demonstration)

Original: Is 17 a prime number?

Revision: Why is 17 a prime number?
How Does the Rewording Improve the Question?

A number of factors contributed to the Civil War. Which do you believe had the greatest impact, and why?

Imagine that the southern states had not seceded. How might today’s social, political, and/or cultural life in the U.S. be different? Justify your answer.

---

How Does the Rewording Improve the Question?

A fantasy is a story in which magical things happen. With your partner, think together about whether or not Charlotte’s Web is a fantasy. Provide evidence from the book to support your answer.

---

How Does the Rewording Improve the Question?

Part II: Guided Practice (p. 19)

Read both questions beneath Part II, and think about how each of the revisions improves the quality of the original question. Jot down your ideas.

Turn to your partner, and share and compare your ideas. Reach agreement on the ways in which the revision improves the original.
How Does the Rewording Improve the Question?

Part III. Collaborative Learning—Pairs Check (p. 20)
1. Form a group of four with two partnerships at your table.
2. Work with your partner to revise the first of the two questions in this section. Agree upon why your revision is an improvement on the original.
3. When both you and your partner and the other pair on your team have completed your work, share and compare. Try to reach consensus on the best rewrite and the justification for this rewrite.
4. Move to the 2nd question, and repeat the protocol.

Connect-Extend-Challenge

• Please complete the three-item reflection before lunch.

• Leave the completed form on the table for presenter review.

PART II
USING STUDENT RESPONSES TO PROMPT TEACHER THINKING ABOUT NEXT STEPS
Scaffold Student Thinking-to-Learn

**What?** *Say Something*

**Why?** To assist learners in being metacognitive as they read to deepen understanding of a short passage, and to activate peer accountability for making meaning of the shared reading.

**How?** In pairs, read an assigned passage. Turn to your partner and say something about what you read; listen to your partner say something about the same passage.
**Scaffold Student Thinking and Learning**

*Say Something*

“Scaffolding is the help given to a learner that is tailored to that learner’s needs in achieving his or her goals of the moment. The best scaffolding provides this help in a way that contributes to learning.” —Sawyer (2009, p. 11)

---

**Two Pieces of Data Required for Effective Scaffolding**

- Learning Goals (or Learning Targets)
- Student’s Current Level of Understanding (determined by questioning)

---

**Zone of Proximal Development (ZPD)**

- Actual Development Level
- Level of Potential Development
Say Something

“For example, telling someone how to do something or doing it for them may help them accomplish their immediate goal; but it is not scaffolding because the child does not actively participate in the construction of knowledge. In contrast, effective scaffolding provides prompts and hints that help learners figure it out on their own.”—Sawyer (2009, p. 11)

Scaffold Student Thinking-to-Learn

What? Collaborative Analysis of a Class Transcript

Why? Understand different models and purposes of scaffolding through analysis of interactions from a sample class.

How? Read transcript (p. 23-25) and identify examples of the scaffolding of thinking. Share with group and formulate categories of strategies, purposes, or ways to scaffold (per directions, p. 26).

Scaffold Student Thinking and Learning

• Share and compare your categories with another table.
• What similarities do you find?
• What differences do you find?
Individual Reflection: Scaffold Thinking

• What insight(s) did you develop about scaffolding from your review and analysis of the classroom example?
• Individually record your ideas, insights, and questions.

Standard Stems

• Stems to Extend Thinking
  o Can you say more about ___?
• Stems to Clarify or Narrow
  o Can you give me an example?
• Stems to Build Accountability for Evidence
  o What is your evidence?
  o What makes you say that?

Developing Student Response-ability
Big Idea: Importance of Student Responding

Responding to questions matters. “So when teachers allow students to choose whether to participate or not . . . they are actually making the achievement gap worse.”
—Dylan Wiliam, *Embedded Formative Assessment*, p. 81

Importance of Student Responding

To prepare to think more deeply about ways to engage all students in thinking, read the short passage on page 27 of the Activity Packet.

Consideration of Different Response Systems

**What?** *Interview Design*

**Why?** To encourage reflection on practice, deep and thoughtful listening to others as they reflect, and analysis and summary of divergent ideas.

**How?** Pairing up per instructions (p. 28), ask your question and record the answers; respond thoughtfully to your partner’s question. Move to a new partner until you have gathered ideas from four people. Summarize and share your findings.
Interview About Response Decisions

• Pair with the person from your table who has the same question (the same number but a different color.)

• The blue card interviews her partner first: ask the question, listen carefully, use wait time, and prompt to fully understand. Record the answers.

• Switch roles. The white card interviews his partner, asking the same question, and recording answers.

Interview About Response Decisions

• Move to a new partner, following this pattern for Round 2:
  #1 white paired with #4 blue
  #2 white paired with #1 blue
  #3 white paired with #2 blue
  #4 white paired with #3 blue

Ask the same question (your number) and record the new partner's answers.

Interview About Response Decisions

• Move to a new partner, following this pattern for Round 3:
  #1 white paired with #3 blue
  #2 white paired with #4 blue
  #3 white paired with #1 blue
  #4 white paired with #2 blue
Interview About Response Decisions

• Move to a new partner, following this pattern for Round 4:

  #1 white paired with #2 blue
  #2 white paired with #3 blue
  #3 white paired with #4 blue
  #4 white paired with #1 blue

Thinking Collaboratively About Response Decisions

• After sharing responses, as a group discuss the following:

  What insights have we gained into how decisions about the use of different response formats affect student engagement with teacher questions?

USE FORMATIVE FEEDBACK
Activity #9: Feedback Tools

**What?** Jigsaw

**Why?** To learn about four tools—through individual study and learning from colleagues—and to reflect on the potential of each.

**How?** Individually read your assigned tool and discuss with a partner who has the same assignment. Of what value might this be in your classroom? How might you share with colleagues? Prepare to share with others in your group.

Activity #10: Take-Aways and Commitments

**What?** Card Swap

**Why?** To make a personal commitment to incorporate something you have learned; to heighten accountability by sharing with colleagues; and to stretch your goals by hearing what others plan.

**How?** On an index card, write one or more ideas that you plan to use in your classroom. Stand and share with a partner. Swap cards and find another partner with whom to share. Continue until time is called.

“The search for meaning is at the very heart of motivation. Students must be inspired to wonder, develop intellectual curiosity, and desire to understand and find answers for themselves.” — Hopkins, 2010, p. 19

Please complete your session evaluation!

Thanks, Jackie and Beth