

# QUESTIONING STRATEGIES



## ASK THE “SPICY” QUESTIONS

Be sure to feed your students a regular diet of spicy questions! A spicy question is one that goes beyond the literal, factual material and makes students expand their thinking, use prior knowledge, make inferences, and evaluate. (For a review of levels of thinking and questioning, see Bloom’s Taxonomy on page 6.) As students gain more understanding of a topic, our questions should move from simple, right-or-wrong basic recall (bland questions) to more complex, open-ended questions requiring interpretation and application (spicy questions).

### **Bland questions:**

- When did the Pilgrims come to America?
- What was the name of the ship they came on?
- Where did they land?
- Why did they leave Europe?
- What hardships did they face?

### **Spicy questions:**

- Name all the things you’d be excited about if you were a Pilgrim coming to America.
- How is traveling across the ocean today by boat different than when the Pilgrims came?
- How was life in America different from what the Pilgrims might have been expecting?
- What were the most important things the Pilgrims brought with them to help them live here?
- If the Pilgrims had a second chance to start all over leaving from Europe, what do you think they would have done differently?

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## EVERYBODY GETS TO ASK

In a differentiated classroom, the questions are equally (and sometimes more) important to answers, especially if the questions come from the students. In fact, when we guide students to ask thought-provoking questions we show them how to be life-long learners.

Student-created questions can be related to text or content that the class has read or studied and can be used to review, reinforce, and extend learning. Reading comprehension is richer and deeper when students must generate questions from the text for their peers. Partners can pair up to share their questions and discuss answers.

Model and practice having students ask “spicy” questions of their peers. (See “Ask the ‘Spicy’ Questions,” page 81.) Have a wall chart of question starters as a resource. Encourage students to start with questions that require recall of facts, but to evolve to questions that evoke higher order thinking from their peers.

### Some sample question starters:

- How is \_\_\_\_\_ related to \_\_\_\_\_?
- What did \_\_\_\_\_ mean when he or she said \_\_\_\_\_?
- What would happen if \_\_\_\_\_?
- Find an example to prove this statement: \_\_\_\_\_
- How would it have changed if \_\_\_\_\_?
- Describe the picture in your head from this passage: \_\_\_\_\_
- Does \_\_\_\_\_ remind you of anything?
- What is your opinion of \_\_\_\_\_?

Use peer questioning after read-alouds, after class discussions of content, and after videos and guest speakers.

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## WAIT TIME MAKES A DIFFERENCE

Waiting a few extra seconds after asking a question will guarantee more thinking from more students. We know that boys often formulate verbal answers more slowly than girls. ESL students and students with limited background experience also need more wait time. Furthermore, high-achieving students benefit from longer wait times because their thought processes may be more complex (Kingore, 2004). Given more time, they can come up with deeper thoughts than when answering “off the top of the head.”

Most teachers wait less than three seconds after asking a question before calling on a student to answer. Thinking is not a knee-jerk reaction. Let students know you expect everyone to have a response: “Think about what other choices that character could have made. I’ll think for a few seconds, too.” After 8-10 seconds, ask for hands. After calling on one or two students, ask everyone to share answers with classmates around them: “Turn to your neighbors and tell them your ideas.” Your students soon learn that when you ask a question, you expect everyone to focus on that question.



## Bloom's Taxonomy Question Stems

### Knowledge

- What happened after . . . ?
  - How many . . . ?
  - Who was it that . . . ?
  - Can you name the . . . ?
  - Described what happened at . . . ?
  - Who spoke to . . . ?
  - Can you tell why . . . ?
  - Find the meaning of . . . ?
  - What is . . . ?
  - Which is true or false . . . ?
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### Comprehension

- Can you write in your own words . . . ?
  - Can you write a brief outline . . . ?
  - What do you think might happen next . . . ?
  - Who do you think . . . ?
  - What was the main idea . . . ?
  - Who was the key character . . . ?
  - Can you distinguish between . . . ?
  - What differences exist between . . . ?
  - Can you provide an example of what you mean . . . ?
  - Can you provide a definition for . . . ?
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### Application

- Do you know another instance where . . . ?
- Could this have happened in . . . ?
- Can you group by characteristics such as . . . ?
- What factors would you change if . . . ?
- Can you apply the method used to some experience of your own . . . ?
- What questions would you ask of . . . ?
- From the information given, can you develop a set of instructions about . . . ?
- Would this information be useful if you had a . . . ?



## Bloom's Taxonomy Question Stems

### Analysis

- Which events could have happened . . . ?
- If . . . happened, what might the ending have been?
- How was this similar to . . . ?
- What was the underlying theme of . . . ?
- What do you see as other possible outcomes?
- Why did . . . changes occur?
- Can you compare your . . . with that presented in . . . ?
- Can you explain what must have happened when . . . ?
- How is . . . similar to . . . ?
- What are some of the problems of . . . ?
- Can you distinguish between . . . ?
- What were some of the motives behind . . . ?
- What was the turning point in the game . . . ?
- What was the problem with . . . ?

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### Synthesis

- Can you design a . . . to . . . ?
- Why not compose a song about . . . ?
- Can you see a possible solution to . . . ?
- If you had access to all resources how would you deal with . . . ?
- Why don't you devise your own way to deal with . . . ?
- What would happen if . . . ?
- How many ways can you . . . ?
- Can you create new and unusual uses for . . . ?
- Can you write a new recipe for a tasty dish?
- Can you develop a proposal which would . . . ?

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### Evaluation

- Is there a better solution to . . . ?
- Judge the value of . . . ?
- Can you defend your position about . . . ?
- Do you think . . . is a good or a bad thing?
- How would you have handled . . . ?
- What changes to . . . would you recommend?
- Are you a . . . person?
- How would you feel if . . . ?
- How effective are . . . ?
- What do you think about . . . ?

# Bloom's Critical Thinking Cue Questions

## Description

Cue questions related to the six thinking skills in Bloom's Taxonomy are purposely constructed to ensure students are stimulated to respond at all levels of the cognitive domain, especially the higher levels. Students may be asked to respond through quick writes, learning logs, tests, creative writing that answers the six levels of prompts, role-audience-format-topic (RAFT) activities, or other writing or speaking activities.

## Purpose

Use *before*, *during*, and *after* reading to:

- Establish a purpose for reading
- Help students develop their thinking skills at all levels of cognition
- Ensure learning assignments respond to all levels of cognition
- Deepen student comprehension of text, especially at the higher levels
- Stimulate original thinking through the use of open-ended questions
- Provide an array of questions to support differentiation in students' products to demonstrate what they have learned

## Directions

1. Assess the cognitive demands of the reading assignment to determine which of the six levels of thinking are required for students to understand what they are reading.
2. Explicitly teach the students about Bloom's Taxonomy of Critical Thinking and share a copy of the cue questions with them.
3. Use the cue questions to develop discussion or writing prompts in advance about the text and give the prompts to students before they read, to provide a purpose for engaging with the text.
4. Model how to respond to Bloom's thinking levels through think-alouds, whole group discussions, small group discussions, paired answers, and other methods so students learn how to answer cue questions at the six levels.
5. Once students are comfortable with the six levels of thinking skills, assign independent after-reading tasks using cue questions from the chart.

## Extensions

- Provide choice for student responses by offering several cue questions from which they select one to answer for each of the six levels.
- Have students use the cue questions chart when previewing text before they read to set their own purposes for reading.
- Ask students to construct questions and answers about what they have read, using the cue questions on the chart.

## Bloom's Critical Thinking Cue Questions

*Cross Content Sample*

<p><b>English Language Arts</b></p> <p><i>During and after</i> reading a classical novel with complex plot, characterization, and theme</p> <p>During reading, provide Bloom's cue questions for students to respond at all cognitive levels: knowledge, comprehension, application, analysis, evaluation, synthesis.</p> <p>After reading, provide the chart of cue questions for each of Bloom's six thinking levels and have students select and answer at least one question for each thinking level to communicate their learning.</p>	<p><b>Mathematics</b></p> <p><i>Before and after</i> reading a text chapter on measurements</p> <p>Before reading, have students activate prior knowledge and predict what will be learned "up" the six levels of Bloom's Critical Thinking Taxonomy by answering six one-minute Quick Write prompts created by the teacher from the cue question chart that relate to precision, accuracy, and units of measurement.</p> <p>After reading, have students review and revise the predictive responses to the Bloom's cue questions to check their understanding of how precision, accuracy, and measurement units affect mathematical predictions and estimates.</p>
<p><b>Science</b></p> <p><i>During</i> reading a text chapter, reviewing graphic depictions, and viewing a video on plate tectonics</p> <p>Structure a two-column note taking chart with prompts derived from Bloom's cue questions chart that require students to analyze, evaluate, and synthesize the information on plate tectonics and correlate it to geological features in today's world.</p>	<p><b>Social Studies</b></p> <p><i>Before, during, and after</i> reading editorials about the economic systems in several countries</p> <p>Have the students refer to Bloom's cue questions for the analysis, evaluation, and synthesis levels when writing a persuasive essay about the country with the most effective economic system. Show them how to justify their response by analytical comparisons, evaluative judgments about quality, and a synthesizing description about the ways other countries would benefit from adopting the selected economic system.</p>

# Bloom's Critical Thinking Cue Questions

## Cue Questions Based on Blooms' Taxonomy of Critical Thinking

Lower-Order Thinking Skills	Higher-Order Thinking Skills
<p><b>1. REMEMBERING</b></p> <ul style="list-style-type: none"> <li>• What is ...?</li> <li>• How is ...?</li> <li>• Where is ...?</li> <li>• When did _____ happen?</li> <li>• How did _____ happen?</li> <li>• How would you explain ...?</li> <li>• How would you describe ...?</li> <li>• What do you recall ...?</li> <li>• How would you show ...?</li> <li>• Who (what) were the main ...?</li> <li>• What are three ...?</li> <li>• What is the definition of...?</li> </ul>	<p><b>4. ANALYZING</b></p> <ul style="list-style-type: none"> <li>• What are the parts or features of ...?</li> <li>• How is _____ related to ...?</li> <li>• Why do you think ...?</li> <li>• What is the theme ...?</li> <li>• What motive is there ...?</li> <li>• What conclusions can you draw ...?</li> <li>• How would you classify ...?</li> <li>• How can you identify the different parts ...?</li> <li>• What evidence can you find ...?</li> <li>• What is the relationship between ...?</li> <li>• How can you make a distinction between ...?</li> <li>• What is the function of ...?</li> <li>• What ideas justify ...?</li> </ul>
<p><b>2. UNDERSTANDING</b></p> <ul style="list-style-type: none"> <li>• How would you classify the type of ...?</li> <li>• How would you compare ...? contrast ...?</li> <li>• How would you rephrase the meaning ...?</li> <li>• What facts or ideas show ...?</li> <li>• What is the main idea of ...?</li> <li>• Which statements support ...?</li> <li>• How can you explain what is meant ...?</li> <li>• What can you say about ...?</li> <li>• Which is the best answer ...?</li> <li>• How would you summarize ...?</li> </ul>	<p><b>5. EVALUATING</b></p> <ul style="list-style-type: none"> <li>• Why do you agree with the actions? The outcomes?</li> <li>• What is your opinion of ...?</li> <li>• How would you prove ...? disprove ...?</li> <li>• How can you assess the value or importance of ...?</li> <li>• What would you recommend ...?</li> <li>• How would you rate or evaluate the ...?</li> <li>• What choice would you have made ...?</li> <li>• How would you prioritize ...?</li> <li>• What details would you use to support the view ...?</li> <li>• Why was it better than ...?</li> </ul>
<p><b>3. APPLYING</b></p> <ul style="list-style-type: none"> <li>• How would you use ...?</li> <li>• What examples can you find to ...?</li> <li>• How would you solve _____ using what you have learned ...?</li> <li>• How would you organize _____ to show ...?</li> <li>• How would you show your understanding of ...?</li> <li>• What approach would you use to ...?</li> <li>• How would you apply what you learned to develop ...?</li> <li>• What other way would you plan to ...?</li> <li>• What would result if ...?</li> <li>• How can you make use of the facts to ...?</li> <li>• What elements would you choose to change ...?</li> <li>• What facts would you select to show ...?</li> <li>• What questions would you ask in an interview with ...?</li> </ul>	<p><b>6. CREATING</b></p> <ul style="list-style-type: none"> <li>• What changes would you make to solve ...?</li> <li>• How would you improve ...?</li> <li>• What would happen if ...?</li> <li>• How can you elaborate on the reason ...?</li> <li>• What alternative can you propose ...?</li> <li>• How can you invent ...?</li> <li>• How would you adapt _____ to create a different ...?</li> <li>• How could you change (modify) the plot (plan) ...?</li> <li>• What could be done to minimize (maximize) ...?</li> <li>• What way would you design ...?</li> <li>• What could be combined to improve (change) ...?</li> <li>• How would you test or formulate a theory for ...?</li> <li>• What would you predict as the outcome of ...?</li> <li>• How can a model be constructed that would change ...?</li> <li>• What is an original way for the ...?</li> </ul>

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## Bloom's Critical Thinking Cue Questions

		<i>Actions</i>	<i>Products</i>
<b>Higher-order thinking</b>	<b><u>Creating</u></b>  (Putting together ideas or elements to develop an original idea or engage in creative thinking).	Designing Constructing Planning Producing Inventing Devising Making	Film Story Project Plan New game Song Media product Advertisement Painting
	<b><u>Evaluating</u></b>  (Judging the value of ideas, materials and methods by developing and applying standards and criteria).	Checking Hypothesising Critiquing Experimenting Judging Testing Detecting Monitoring	Debate Panel Report Evaluation Investigation Verdict Conclusion Persuasive speech
	<b><u>Analyzing</u></b>  (Breaking information down into its component elements).	Comparing Organising Deconstructing Attributing Outlining Structuring Integrating	Survey Database Mobile Abstract Report Graph Spreadsheet Checklist Chart Outline
<b>Lower-order thinking</b>	<b><u>Applying</u></b>  (Using strategies, concepts, principles and theories in new situations).	Implementing Carrying out Using Executing	Illustration Simulation Sculpture Demonstration Presentation Interview Performance Diary Journal
	<b><u>Understanding</u></b>  (Understanding of given information).	Interpreting Exemplifying Summarising Inferring Paraphrasing Classifying Comparing Explaining	Recitation Summary Collection Explanation Show and tell Example Quiz List Label Outline
	<b><u>Remembering</u></b>  (Recall or recognition of specific information).	Recognizing Listing Describing Identifying Retrieving Naming Locating Finding	Quiz Definition Fact Worksheet Test Label List Workbook Reproduction

# BLOOM'S TAXONOMY PLANNER

Have I provided opportunities for higher-level thinking?

LEVELS OF THINKING	VERB EXAMPLES	ACTIVITIES AND STRATEGIES
<b>Knowledge</b> (I know.)	count, define, find, label, list, match, recall, recite, state, sequence	
<b>Comprehension</b> (I understand.)	explain, give examples, illustrate, paraphrase, retell, report, summarize	
<b>Application</b> (I use what I know.)	apply, chart/graph, construct, demonstrate, select, solve, transfer	
<b>Analysis</b> (I break down information.)	analyze, break down, categorize, compare, contrast, distinguish, rank	
<b>Evaluation</b> (I form and support opinions.)	assess, critique, debate, justify, judge, predict, prove, recommend, test	
<b>Synthesis</b> (I use knowledge and skills to create something new.)	create, design, devise, infer, invent, reconstruct, make a system, plan	