

Questioning Frameworks

Tools for Designing Prompts and Tasks to Assess
Higher-Order Thinking

From Doughty & Hockett (2017). *Differentiation in the Elementary Grades*. ASCD.

Figure 4.17 | Questioning Framework Examples Across Grade Levels and Content Areas

Questions Based on Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001)			
Question Type	Nature of Question	Potential Stems	Sample Questions or Prompts
Remembering	Recalling or recognizing information. Questions ask students to <i>define, name, recall, repeat, or state</i> .	The majority of "Remembering" questions begin with the word <i>who, what, when, or where</i> .	<ul style="list-style-type: none"> • What is a "stanza" in poetry? • When did the United States gain its independence? • What are the properties of a triangle? • Who invented the lightbulb?
Understanding* *This is <i>not</i> the deep and transferable "understanding" discussed in Chapter 2 (UBD).	Comprehending or grasping prior learning. Questions ask students to <i>describe, discuss, explain, paraphrase, or summarize</i> .	<ul style="list-style-type: none"> • Explain the process of _____. • Describe how to _____. • Summarize _____. • In your own words, tell _____. 	<ul style="list-style-type: none"> • Explain the conflict in the story you are reading. • Summarize the events that led up to the beginning of the Revolutionary War. • Describe the steps to follow when solving a long division problem. • How does an elephant stay cool?
Applying	Using information to solve a problem or complete a task. Questions ask students to <i>demonstrate, illustrate, interpret, solve, or use</i> .	<ul style="list-style-type: none"> • Demonstrate the process of _____. • Illustrate how _____. • Determine how _____ works. • Use _____ to solve this problem: _____. 	<ul style="list-style-type: none"> • How would you correct this flawed sentence? • Illustrate how one check or balance works in the branches of the U.S. government. • What are the errors in this solution to the problem? • How could the weaknesses in this experiment's design be improved?

Question Type	Nature of Question	Potential Stems	Sample Questions or Prompts
Analyzing	Breaking down material, examining organizational structure, finding patterns, or relating ideas. Questions ask students to <i>categorize, compare, contrast, discriminate, or distinguish</i> .	<ul style="list-style-type: none"> • _____ is an example of _____ because _____. • What are the similarities and differences between _____ and _____? • How does _____ affect _____? • _____ is/is not an example of _____ because _____. 	<ul style="list-style-type: none"> • What internal conflict is the character in this story experiencing? How do you know? • How are the buildings of Ancient Rome and Greece similar? Different? • Is there another way that we could write the same equation to see if it would still work? • Is _____ an Arctic animal? Why or why not?
Evaluating	Appraising or critiquing based on specific standards or criteria. Questions ask students to <i>appraise, defend, judge, justify, or support</i> .	<ul style="list-style-type: none"> • How effective is _____? Why? • Which is better/stronger/more defensible: _____ or _____? Why? • Support the argument that _____. • Is _____ safe/helpful/ beneficial for _____? Explain. • Why might _____ agree/disagree with _____? Explain. 	<ul style="list-style-type: none"> • How effective is the writer's use of imagery (ability to use words to paint pictures in your head)? Explain. • Why might some people have disagreed with the Boston Tea Party, and how would they defend their opinion? • How effective was [this former student] at solving this problem? • Will planting trees really help the environment? Why or why not?
Creating	Combining and integrating ideas and information into new schematics, products, plans, patterns, or structures. Questions ask students to <i>construct, design, develop, formulate, or propose</i> .	<ul style="list-style-type: none"> • Design a new way to _____. • Develop a theory about _____. • Propose a plan to _____. • Imagine a situation in which _____. • Formulate a new _____ using _____. 	<ul style="list-style-type: none"> • Formulate a new story featuring the same characters facing a different conflict. • Propose a plan to help your classmates distinguish among the different regions. • What is another way to solve this problem, and how might it help people? • Imagine a world in which everyone sorts their trash and recycling. Develop a plan that would make that happen in real life.

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Figure 4.17 | Questioning Framework Examples Across Grade Levels and Content Areas

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Questions Based on Webb's DOK (Webb et al., 2005)			
Webb's Level	Key Verbs	Potential Stems	Sample Questions or Prompts
<p>Level One: Recall <i>Who, what, when, where, why</i></p>	<p>Arrange, calculate, define, identify, list, measure, recognize, recall, repeat, state, use</p>	<p>The majority of "Recall" questions begin with the word <i>who, what, when, or where</i>.</p>	<ul style="list-style-type: none"> • When and where did the story of <i>Sarah, Plain and Tall</i> take place? • Where were the majority of the battles in this war fought? • What does it mean to say that two fractions are "equivalent"? • What kind of animal is a dolphin?
<p>Level Two: Skill/Concept <i>Beyond recall; requires processing</i></p>	<p>Categorize, estimate, identify patterns, organize, predict (if/then), separate, summarize</p>	<ul style="list-style-type: none"> • If _____, then _____? • How would you organize _____ to show _____? • Illustrate how _____ works. • What do you think would happen if _____? Why? • Use _____ to solve this problem: _____. 	<ul style="list-style-type: none"> • If the Grinch is motivated by greed, what do you think he will do next? • To which branch of government does [this power] "belong"? Why do you say so? • What angle measures would we get if we decomposed this angle into 3 smaller angles with equal measures? • Using what you know about the traits of mammals, categorize these animals into "mammals" and "nonmammals."

Webb's Level	Key Verbs	Potential Stems	Sample Questions or Prompts
<p>Level Three: Strategic Thinking <i>Requires mental processing at a higher level</i></p>	<p>Appraise, assess, compare, critique, formulate, hypothesize, investigate, revise</p>	<ul style="list-style-type: none"> • How are ____ and ____ alike? How are they different? • Based on the data you've collected, what is your hypothesis about ____? • Use what you've learned about ____ to revise your thinking about ____. • How would you rate the ____ of ____? • Evaluate ____ based on the following criteria: _____. 	<ul style="list-style-type: none"> • How does Steve Jenkins use illustrations in <i>What Do You Do with a Tail Like This?</i> How does this compare with how he uses illustrations in <i>Never Smile at a Monkey?</i> • Use what you've learned about a city community to evaluate our classroom community. • Use estimation strategies to assess the reasonableness of your answer to this story problem (CCSS4.OA.A.3). • Based on the data you've collected, what is your hypothesis about the temperature next week?
<p>Level Four: Extended Thinking <i>Requires planning and developing; therefore, extended time is necessary.</i></p>	<p>Apply concepts to, connect, create, critique (more factors), design, prove, synthesize</p>	<ul style="list-style-type: none"> • Apply the concepts of ____ to creating a ____. • Plan and conduct an investigation to determine _____. • Critique this ____ in terms of _____, _____, and _____. • Design an original application of _____. • Use ____ to prove _____. 	<ul style="list-style-type: none"> • Create an original poem that reflects your favorite poem's theme. • Investigate the structures in our school to determine if they better represent Roman or Greek architecture. • Use what you know about area and volume to design a waterpark with 5 pools with the following dimensions: _____. • Plan and conduct an investigation to provide evidence of what plants need to live.

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Figure 4.17 | Questioning Framework Examples Across Grade Levels and Content Areas

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Questions Based on The Six Facets of Understanding (Wiggins & McTighe, 2006)			
Facet	Nature of Question/Prompt	Potential Stems	Sample Questions or Prompts
Explain/Explanation	Put information, ideas, principles, and processes into own words and explain thinking.	<ul style="list-style-type: none"> • What is the key idea in _____? • What caused _____? What are the effects of _____? • What are examples of _____? • How did _____ come about? • What might happen if _____? • What are some common misconceptions about _____? • What are some examples of _____? • How might we confirm/prove/justify _____? • How is _____ connected to _____? 	<ul style="list-style-type: none"> • Draw and label a simple diagram that shows how plants “feed” themselves. Then explain what your diagram shows. • Think about a swimming pool. What is the difference among the <i>area</i> of the pool, the <i>perimeter</i> of the pool, and the <i>volume</i> of the pool? • What caused the American Revolution? • Circle the metaphor in the song/poem excerpt below. Then explain why you think this is a metaphor. • Give examples and nonexamples of symmetry.
Interpret/Interpretation	Make sense of information, ideas, principles, and processes by creating comparisons, analogies, or stories.	<ul style="list-style-type: none"> • How is _____ like a _____? • What is the meaning of _____? • How does _____ relate to _____? • What are the implications of _____ for _____? • What does _____ reveal about _____? • What does _____ have to do with _____? • Explain _____ to an audience of _____. 	<ul style="list-style-type: none"> • How is a plant like a human? • How does “manifest destiny” relate to us? • Write a story for this number model. • Use your own words to paraphrase this idea: _____. • Explain to an audience of preschoolers why we <i>need</i> standard units of measurement. Be sure to use examples and analogies they would understand.

Facet	Nature of Question/ Prompt	Potential Stems	Sample Questions or Prompts
Apply/ Application	Use information, ideas, principles, and processes in new contexts and situations.	<ul style="list-style-type: none"> • How could someone use _____ to _____? • How is _____ applied in the larger world? • Where do we see _____ in the world today? • How could _____ help/benefit _____? • Solve _____. Name a real-life situation in which you might use _____. • Use _____ to create a _____ that shows _____. 	<ul style="list-style-type: none"> • Create a table for these data that makes them easier to understand. • When would it be more appropriate to use the <i>mode</i> of a set of data rather than the <i>mean</i>? • Revise this paragraph for capitalization and punctuation. • Name three ways that someone could use fractions to plan a birthday party. • Choose your favorite symmetrical object in the classroom. Make a list of all the ways that this object's symmetry helps it do its "job."
Demonstrate/ Have perspective	Recognize and articulate the many possible different viewpoints regarding a situation.	<ul style="list-style-type: none"> • What are different points of view about _____? • How might _____ look from _____'s point of view? • What are the benefits and limitations of this _____? • How is _____ similar to/different from _____? • What are other possible reactions to _____? • What are the strengths and weaknesses of _____? • What are the limits of _____? • What's the evidence for _____? Is the evidence reliable? Sufficient? • Is it ever OK for _____? Why or why not? 	<ul style="list-style-type: none"> • Analyze this student's work from a class several years ago. What did he or she do well? What did he or she not do well? • What are the benefits and limitations of using a bar graph to display these data? • How might the problem in the story look from [this character's] point of view? • Give the pros and cons of relying on GPS for directions. • Argue that a car is a <i>need</i>. Then argue that it's a <i>want</i>.

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Questions Based on The Six Facets of Understanding (Wiggins & McTighe, 2006)			
Facet	Nature of Question/Prompt	Potential Stems	Sample Questions or Prompts
Display empathy/Empathize	Take on the view-point, concerns, or opinions of another and argue from that perspective.	<ul style="list-style-type: none"> • What would it be like to walk in the shoes of ____? • How might _____ feel/have felt about _____? • How can I reach a better understanding about _____? • What was _____ trying to make _____ feel or see [about _____]? • One misunderstanding someone might have about _____ is _____. 	<ul style="list-style-type: none"> • What would it be like to walk in the shoes of a Native American child? • Respond to someone who might say that capitalizing doesn't matter. • Assume the role of the main character and explain why you made the choice you did in this chapter. • What is one misconception that someone might have about <i>scale</i>? What would you say (or do or show) to correct that misconception? • What did the author want you (the reader) to better understand after reading this story? How do you know?
Self-reflect	Reflect on one's own connection to, use of, and strengths and weaknesses with regard to the ideas and processes.	<ul style="list-style-type: none"> • How do I know _____? • What are the limits of my knowledge about _____? • How are my views about _____ shaped by my [experiences/habits/prejudices/styles]? • What are my "blind spots" about _____? (What <i>don't</i> I know?) • How can I best show _____? • What are my strengths and weaknesses in _____? • What is one question people should ask themselves when they _____? • What is a mistake that someone might make in trying to _____? Why might he or she make that mistake? 	<ul style="list-style-type: none"> • What is a mistake someone might make when adding or subtracting fractions? Why might he or she make that mistake? • What don't you understand yet about using quotation marks? • How has your understanding of the writing process changed over the past month? • How can a person know when to use an estimate and when to use an exact measurement? • What should people be sure to do when working on the kind of problem we've been learning about this week? <i>They should be sure to . . . because. . .</i>