

## Through the Roof: Raising Students' Thinking Skills through Depth & Complexity

with Lisa Van Gemert | [giftedguru.com](http://giftedguru.com)

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### *Best Practices:*

- Combine the elements with high levels of \_\_\_\_\_.
- Combine the elements with a quality \_\_\_\_\_.
- Raise the level for GT with \_\_\_\_\_.
- Avoid doing the Sherman \_\_\_\_\_ through \_\_\_\_\_ thing.

### *Keep Exploring:*

Find the depth & complexity resources at [jtayloreducation.com](http://jtayloreducation.com). Use discount code "DIFFWITHDC" for 15% off.

Intro to depth & complexity: [bit.ly/depth-complex-byrd](http://bit.ly/depth-complex-byrd)

And then of course there's this [bit.ly/depth-complex-math](http://bit.ly/depth-complex-math) for the math peeps.

Depth: Language of the discipline, big idea, essential details, rules, patterns, trends, unanswered questions, ethics:

[bit.ly/elements-of-depth](http://bit.ly/elements-of-depth).

Complexity: Change over time, multiple points of view, across the disciplines. [bit.ly/depth-complex2](http://bit.ly/depth-complex2).



Introduction slide deck: [bit.ly/intro-depth-complex](http://bit.ly/intro-depth-complex). Ugly, but comprehensive and with good techniques in the classroom.

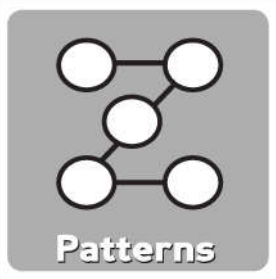


Stay connected at [giftedguru.com](http://giftedguru.com) for loads of ideas and helps.

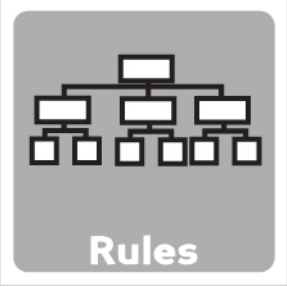


# The Elements of DEPTH and COMPLEXITY




Note: This chart identifies questions, thinking skills, prompts, and ideas associated with the eleven elements of the Depth & Complexity Framework. It shares the icon itself, along with:

- Sample Questions that can be used in the course of lesson plans
- Associated Thinking Skills
- Resources most likely to help students locate the information associated with the element and examples of activities

ICON	PROMPT	SAMPLE QUESTIONS	THINKING SKILLS	RESOURCES/EXAMPLES
	<ul style="list-style-type: none"> <li>• specialized vocabulary</li> <li>• tools of the discipline</li> <li>• signs &amp; symbols</li> <li>• names of skills or tasks</li> <li>• jargon/idioms</li> <li>• acronyms</li> </ul>	<p>What words are specific to the work in this discipline?</p> <p>What tools does a ____ use?</p> <p>Where did these words come from?</p> <p>What are the most important words in understanding ____?</p>	<p>categorize</p> <p>identify</p> <p>prioritize</p> <p>identify relationships (among the terms)</p> <p>determine appropriate use of terminology</p>	<ul style="list-style-type: none"> <li>• text</li> <li>• biographies</li> <li>• dictionaries</li> </ul> <p>Create a brochure advertising the literary devices the author uses to greatest effect.</p> <p>What piece of equipment is most difficult to be substituted in this lab?</p>
	<ul style="list-style-type: none"> <li>• features</li> <li>• attributes</li> <li>• defining characteristics</li> <li>• parts</li> <li>• factors</li> <li>• data</li> </ul>	<p>What are its attributes?</p> <p>What distinguishes this from other things?</p> <p>What details are more/most important?</p> <p>What information can be added to what we already know about __?</p> <p>What elements repeat?</p> <p>What is the sequence/ order of events?</p>	<p>identify traits</p> <p>describe</p> <p>compare/contrast</p> <p>prove with evidence</p> <p>observation</p> <p>note ambiguity</p>	<ul style="list-style-type: none"> <li>• pictures</li> <li>• documents</li> <li>• diagrams</li> </ul> <p>Illustrate how ____ would change if we _____?</p> <p>Use a graphic organizer to prove that _____.</p> <p>Create a crossword puzzle using at least 12 important details from the text.</p>

 <p><b>Patterns</b></p>	<ul style="list-style-type: none"> <li>• repetition</li> <li>• predictability</li> <li>• recurring events</li> <li>• cycles</li> <li>• repeated features</li> </ul>	<p>What predictions can be made based on past events?</p> <p>What elements/ events/ ideas are repeated over time?</p>	<p>determine relevancy v. irrelevancy</p> <p>summarize</p> <p>distinguish similarities and differences</p>	<ul style="list-style-type: none"> <li>• timeline</li> <li>• plot outlines</li> <li>• equation patterns</li> <li>• diagrams</li> </ul> <p>With a partner, design a 20 Questions game that reveals the pattern of _____.</p>
 <p><b>Trends</b></p>	<ul style="list-style-type: none"> <li>• influences</li> <li>• forces</li> <li>• direction</li> <li>• fads</li> </ul> <p>[Note: In many ways, this is Patterns combined with Over Time]</p>	<p>What factors are influencing this?</p> <p>What direction is this heading?</p> <p>How is this trend connected to/ influenced by _____ trend?</p>	<p>determine cause and effect</p> <p>relate</p> <p>prioritize</p> <p>formulate questions</p> <p>hypothesize</p>	<ul style="list-style-type: none"> <li>• graphs</li> <li>• charts</li> <li>• journals</li> </ul> <p>Write a brief explaining to the president the social and political influences that led to the Civil War.</p>
 <p><b>Unanswered Questions</b></p>	<ul style="list-style-type: none"> <li>• dilemmas/ ambiguities</li> <li>• discrepancies</li> <li>• as yet unknown</li> <li>• unknowable</li> <li>• incomplete ideas</li> <li>• lacking in explanation</li> </ul>	<p>What is uncertain?</p> <p>What is not understood?</p> <p>What information is incomplete?</p> <p>What is lacking in understanding?</p> <p>How can you explain the discrepancy between your hypothesis and your results?</p>	<p>recognize fallacies</p> <p>note ambiguities</p> <p>distinguish fact from fiction</p> <p>formulate questions</p> <p>identify missing information</p> <p>generalize</p> <p>hypothesize</p> <p>judge credibility</p>	<ul style="list-style-type: none"> <li>• multiple and varied reliable resources</li> <li>• non-fiction texts</li> <li>• biographies</li> <li>• quality internet sites</li> </ul> <p>Using the Big Idea icon as a graphic organizer, describe three factors that make this problem ambiguous.</p> <p>Create a PowerPoint slide deck with five slides exploring the things that still remain unknown about _____.</p>

	<ul style="list-style-type: none"> <li>• structure</li> <li>• order</li> <li>• standards</li> <li>• usual behavior</li> <li>• laws</li> <li>• organization</li> <li>• methods</li> </ul>	<p>How is this structured?</p> <p>Describe the rules of ___?</p> <p>What hidden or unspoken rules exist?</p> <p>What rules do we use in solving ___?</p>	<p>identify relationships among the rules</p> <p>judge the importance of the rules</p>	<ul style="list-style-type: none"> <li>• editorials</li> <li>• essays</li> <li>• laws</li> <li>• theories/theorems</li> </ul> <p>Using a Bracket Map, organize the _____ into four classification categories.</p> <p>Match the characters in the story to at least three conflict types.</p>
	<ul style="list-style-type: none"> <li>• controversies</li> <li>• dilemmas</li> <li>• biases</li> <li>• principles</li> <li>• morals</li> <li>• philosophies</li> <li>• values</li> <li>• prejudice/ discrimination</li> <li>• judging/ bias</li> </ul>	<p>What are the most important ethical issues?</p> <p>Is this fair? Right? Just? Prejudiced?</p> <p>Justify why it would/would not be fair to ___?</p>	<p>determine bias</p> <p>test assumptions</p> <p>judge with criteria</p> <p>prioritize most important ethical issues</p>	<ul style="list-style-type: none"> <li>• editorials</li> <li>• essays</li> <li>• journals</li> <li>• non-fiction texts</li> </ul> <p>Analyze the benefit in _____ and write a persuasive essay sharing your analysis.</p> <p>How did the previous experience of ___ impact the attitude of ___?</p>
	<ul style="list-style-type: none"> <li>• overarching ideas</li> <li>• broad idea that can be supported with evidence</li> <li>• generalization</li> <li>• universal concept to connect all learning</li> <li>• principles, laws, theories</li> </ul>	<p>What theory or general statement applies?</p> <p>What generalizations can be made?</p> <p>What is the main idea?</p> <p>How do you evaluate the importance of the big idea?</p>	<p>prove with evidence</p> <p>generalize</p> <p>identify the main idea</p> <p>infer a big idea from supporting evidence</p> <p>categorize/classify big ideas</p>	<ul style="list-style-type: none"> <li>• quotations</li> <li>• text</li> </ul> <p>Create a poster displaying your analysis of which era of history can be summed up “purification of government and family.”</p> <p>Share how the idea “matter cannot be created or destroyed” applies to this situation in a photo essay.</p>

	<ul style="list-style-type: none"> <li>• looking at past, present, and future</li> <li>• relationships within a time period</li> <li>• applying something historic to present knowledge</li> <li>• predicting something based on present knowledge</li> <li>• noting change</li> </ul>	<p>How are the ideas related among the past, present, and future?</p> <p>How are these ideas related within or during a particular period of time?</p> <p>How has time affected the information?</p> <p>How and why do things change or remain the same?</p>	<p>relates</p> <p>sequence</p> <p>order</p> <p>determine relevance of knowing this topic over time</p>	<ul style="list-style-type: none"> <li>• time lines</li> <li>• text</li> <li>• primary sources</li> </ul> <p>Make a news segment explaining in what way the water cycle is different now than it was one million years ago.</p>
	<ul style="list-style-type: none"> <li>• different points of view</li> <li>• ways of seeing/ reporting</li> <li>• opposing viewpoints/ outlook/ interpretation</li> <li>• often dependent upon time/place</li> <li>• affected by roles/ responsibilities</li> </ul>	<p>What are opposing viewpoints?</p> <p>How do different people and characters see this event or situation?</p>	<p>argue</p> <p>determine bias</p> <p>classify</p>	<ul style="list-style-type: none"> <li>• biographies</li> <li>• myth/ legend/ fable</li> <li>• debates</li> </ul> <p>Create a frame summarizing the perspectives of everyone in your group with regard to ____.</p>
	<ul style="list-style-type: none"> <li>• connections across disciplines</li> <li>• touching on many subjects at once</li> <li>• relationships between/ among the disciplines</li> </ul>	<p>How does this study connect across disciplines?</p> <p>What are common elements among ____?</p>	<p>judge</p> <p>draw conclusions</p> <p>interpret</p>	<ul style="list-style-type: none"> <li>• multiple and varied resources</li> <li>• images</li> <li>• discipline-related resources</li> </ul> <p>Write a two-paragraph short essay explaining how trends in poetry and art both reflect and inform changing mores in WWI-era Europe.</p>