

## Concentric Circles: A Curricular Approach

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*“Nations around the world are reforming their school systems...to support the more complex knowledge and skills needed in the 21<sup>st</sup> century, skills needed for framing problems seeking and organizing information and resources, and working strategically with others to manage and address dilemmas and create new problems.” ~ Linda Darling-Hammond.*

The Common Core State Standards, the Next Generation Science Standards, and state adopted content represent the knowledge, skills, and dispositions students should understand and demonstrate as a consequence of their matriculation through the K-12 system. Differentiation becomes the means by which we can create multiple pathways to the standards or core content under study. There are numerous ways that we can differentiate the curriculum. Modifications can be made to factors such as time, level of scaffolding, environment, grouping patterns, processes, and products. According to Tomlinson (1999), differentiation is grounded in the philosophy of optimizing the match between the students (their interests, learning profiles, and abilities) and the learning experience. The California standards for gifted and talented education (GATE) articulate four means of differentiating the core curriculum to meet the needs and characteristics of gifted learners. The four areas include acceleration of knowing, depth, complexity, and novelty. The following chart defines the four areas of the GATE standards and outlines the instructional strategies or elements that comprise each area.

<b>Acceleration</b>	<b>Depth</b>	<b>Complexity</b>	<b>Novelty</b>
Acceleration of thinking and knowing involves differentiating the core curriculum to provide challenge and opportunities above and beyond the core content.	Depth refers to approaching or studying the core curriculum in various thinking patterns (complex to simple, parts to whole, abstract to complex) in order to pursue the topic in greater detail with a greater degree of understanding.	Complexity involves moving beyond a surface level understanding, from an analysis of what is intended to what is inferential. Differentiation using complexity involves extending the content to the study of issues, topics, and themes.	Novelty provides inquiry and exploration into the core curriculum that provides students with opportunities to create new, original, and/or reorganized knowledge structures.

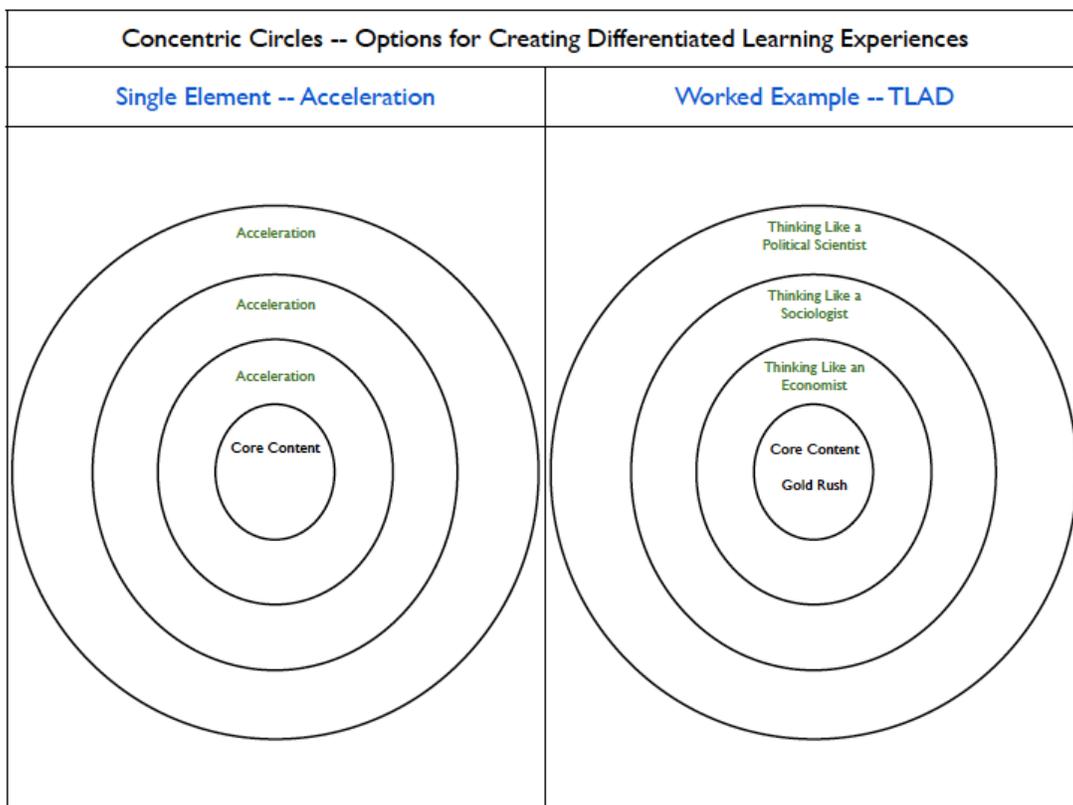
Thinking Like a Disciplinarian Universal Concepts Big Ideas	Language of the discipline		
	Details	Multiple perspectives	
	Patterns	Over time	Critical thinking
	Rules	Interdisciplinary connections	Creative thinking
	Trends	Context	Problem solving
	Ethics	Translate	Independent Study
	Unanswered questions	Original	
	Process	Judgment	
	Impact		
	Motive		
Proof			

The rationale for differentiating the core curriculum by varying the methods and instructional strategies outlined in the GATE standards is twofold. First, differentiating the core curriculum using one or more of the GATE standards enhances and capitalizes on the characteristics, skills, and aptitudes that gifted students bring with them into the learning experience. In addition, differentiation through the use of many and varied strategies helps to develop and activate potential in all learners and could uncover gifts and talents in students that might be otherwise masked by the curriculum. The elements of the GATE standards listed in the above chart become the vehicle for and the means of **circling** the core curriculum.

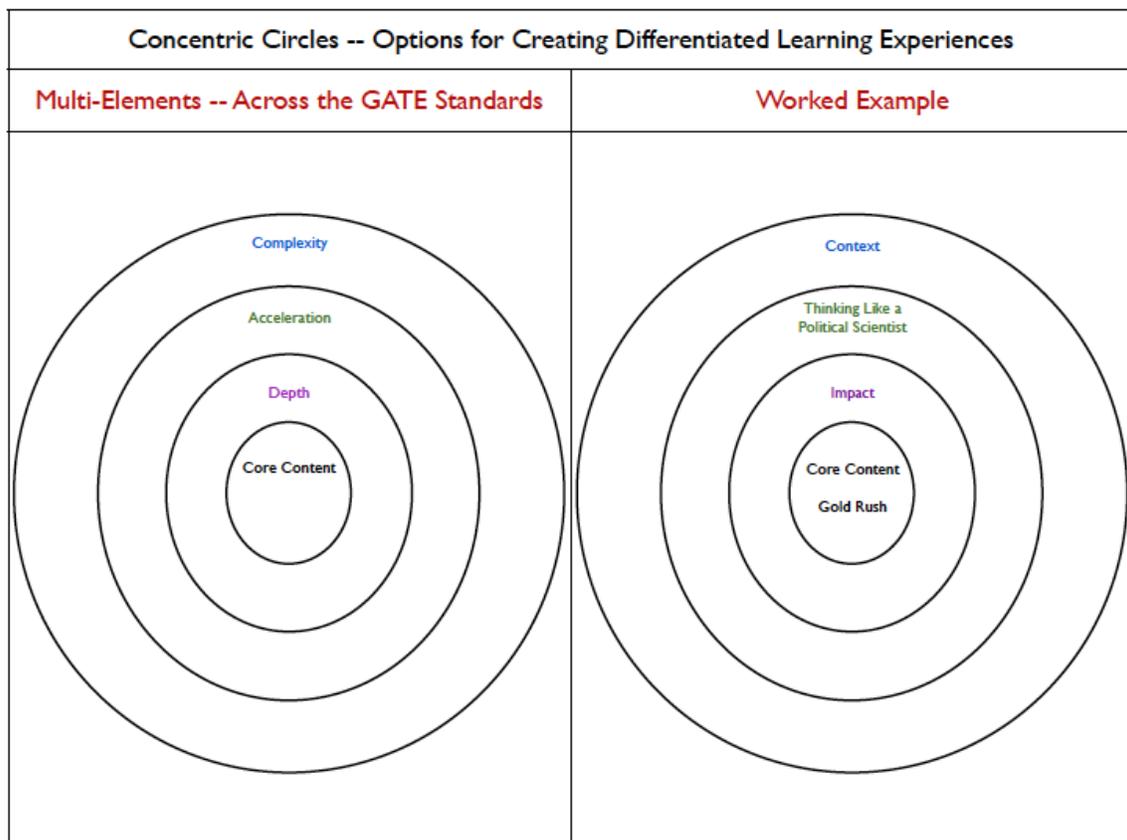
Seminal as well as contemporary curriculum theorists (Tyler, Dewey, VanTassel-Baska, and Kaplan) have discussed the importance of making connections between, within, and across content areas. According to Sternberg and Davidson (2005), one of the main thrusts behind a differentiated curriculum for the gifted is to provide opportunities for students to transfer knowledge, skills, and conceptual understandings between and across the disciplines. The Concentric Circle approach is one curricular strategy designed to help forge intra-and-inter-disciplinary connections by analyzing content from multiple points of view. **Circling** a topic or an area of study using the elements of the GATE standards is analogous to standing at the counter of a Baskin-Robbins ice-cream parlor. A myriad of combinations exist for creating the perfect three-scooped sundae. There is not one right way to create your sundae nor do you have to order the same combination each time you enter the store. However, your decision about which flavors to order is guided by a set

variables or criteria: hunger, cost, availability of items on the menu, etc. Your analysis of the variables helps you create the perfect sundae for that moment in time.

Transfer the analogy of ordering a sundae to the decisions needed to plan and execute differentiated curriculum for gifted learners using the Concentric Circle approach. The elements of acceleration, depth, complexity, and novelty comprise the “menu” of options available for creating a myriad of differentiated learning experience. Concentric Circles can be created in one of two ways. The first method for creating a Concentric Circle involves varying the number but not the type of GATE element. In this approach, the “circle” is created by targeting one of the elements of the GATE standards (acceleration, depth, complexity, and novelty) and applying different facets of the same element to the content. For example, we could differentiate our study of the Gold Rush using acceleration and Thinking Like a Disciplinarian. Students could circle the topic of the Gold Rush from the perspectives of an economist, a sociologist, and a political scientist. An economist might examine the financial implications of the Gold Rush and address issues such as needs, wants, supply, and demand. A sociologist might analyze the Gold Rush in terms of the social behavior groups, organizations, and cultures that developed as a consequence of people living and working together in mining towns. A political scientist might be interested in the concept of vigilante justice and how laws were developed and enforced during the time of the Gold Rush. The following graphic illustrates this example.



The second method for using the Concentric Circle approach involves the strategic and purposeful selection of multiple elements across the GATE standards. The “circle” is created by selecting one or more elements from one or more of the areas of acceleration, depth, complexity, and novelty. In this method, our study of the Gold Rush can be circled using one element of depth, one element of acceleration, and one element of complexity. Remember...there is not one “right” way to combine elements to create your circle. In our example of the Gold Rush, students could begin their study by examining its’ impact, a prompt of depth. Students could analyze the short term and long term impacts of the Gold Rush and categorize the impacts as either having positive or negative outcomes. Students could then Think Like a Political Scientist to reexamine the evidence gathered from the first round of research from a disciplinary perspective. In this stage of the “circle,” students are culling the data that evidences how the Gold Rush impacts politically motivated factors -- regulations and laws of society, rules for staking claims, etc. Finally, students can conclude their study of the Gold Rush by analyzing the concept of context. Using the prompt of complexity, students can examine the setting, environment, and philosophical beliefs in existence during the time of the Gold Rush. Students can then make connections between the context of the Gold Rush and modern-day “rushes” for resources to articulate their political implications. The following graphic illustrates this version of the Concentric Circle approach.



Regardless of the method used to create the Concentric Circles, one question remains the same: *How do I decide what elements to use?* Just like the criteria that runs through our mind each time we find ourselves at the Baskin-Robbins counter, factors exist that help us determine what elements of the GATE standards to use, how many elements to select, and the order in which they can be “circled.” The following set of questions forms the basis by which we can create an integrated approach to learning and help students develop the skills to **circle** the core curriculum with a level of nuanced understanding required of 21<sup>st</sup> Century thinkers.

- Why it is significant, relevant, important, or valuable to the learner?
- When it is important to use it as a scholar of the discipline?
- What are the processes involved in applying it?
- How it is connected to other forms of information?
- What can be modified or adapted to alter its use?
- Who would use the information?
- Where would this information be most appropriate and applicable?

Brady (2004) states that when students “move from knowing to knowing what they know, they are able to perform at intellectual levels far beyond expectations.” Concentric Circles as an instructional strategy provides students with an opportunity to redefine what it means “to know.” “Knowing” something for success in a 21<sup>st</sup> century, globally competitive society requires a level of analysis that is obtained through multiple examinations of the same subject, topic, or discipline. To “know” a topic means to see that topic from multiple points of view that utilize the application of critical thinking, creative thinking, and problem solving strategies. Defined by Sternberg (1997) as flexible intelligence, educational opportunities must be provided that teach children to view issues from multiple points of view, to generate new ideas, and to find the connections between seemingly disparate pieces of information. The Concentric Circles approach can be used as a means of targeting the needs, interests, and abilities of gifted learners AND differentiating the curriculum to prepare **all** students for success in the 21<sup>st</sup> Century.