

Embedding GT Instructional Practices in the Classroom: An Inclusive Model That Works

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Handouts

- www.dianeheacox.com/handouts

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Learning Goals

- How to successfully embed GT practices into the general classroom.
- How to increase the capacity and effectiveness of Resource and General Ed. Teachers' collaboration.
- How to incorporate models of GT practices into the general curriculum.

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Embedding Initiatives in Classroom Practice

1. Build a foundation of common definitions, understandings and strategies.
2. Provide time for planning and sharing (Wilson 2009...more than 40 hours).
3. Do follow-up and extension of strategies (Wilson 2009...up to a year).
4. Provide instructional coaching with descriptive feedback as teachers try out and implement the instructional strategies.
5. Move into autonomous support through lesson study (within PLCs?).
6. Consider co-teaching models to lighten planning and management demands.

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Differentiation for Gifted Learners: Going Beyond the Basics

- Depth of *content* through interdisciplinary concepts
- Complexity of *process* through sophisticated levels of thinking and doing
- Uniqueness of *product* through authentic problems and solutions



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Comprehensive Instructional Leadership Models

- Consultation
- Collaboration
- Coaching
- Co-Teaching

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Consultation/Collaboration

Seminal work:
Resource Consultation Model in Gifted Education to
Support Talent Development in Today's Inclusive
Schools

Kirschenbaum, Armstrong & Landrum
GCO, Vol 43, #1, Winter 1999

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A Coach

- Helps teachers to recognize their instructional knowledge, strengths and limitations, and supports them in their learning and their application of new knowledge and instructional practices to benefit their students.
- Adapted from Kowal & Steiner (2007)

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Five Approaches to Co-Teaching

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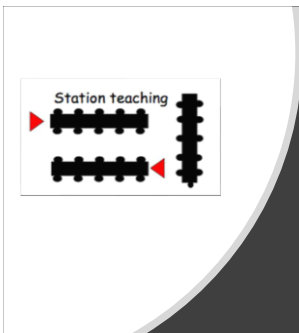
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Lead and Support Approaches

- One teacher takes the lead in instruction, the other acts in a supportive capacity. The teachers may switch roles later in the lesson.

One Teach, One Observe
One Teaching, One Assisting

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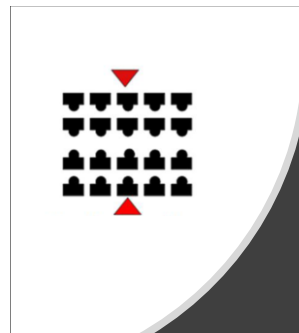


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Station Teaching

- Co-teachers divide instruction so that each has responsibility for preparation of an element.
- Students are divided into instructional groups and each group rotates to the co-teachers in turn.
- Co-teachers differentiate the discussions/task based on the particular group they are meeting with.
- Groups may also rotate to activities/stations not led by a co-teacher such as independent practice, individual applications, computer stations, work on the interactive white board.

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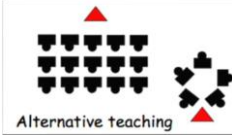


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Parallel /Simultaneous Instruction

- Students are divided into instructional groups based on likeness in readiness, interests or cognitive preference.
- The same goal and/or content is being addressed in all groups.
- Teachers co-plan, however, each teacher takes responsibility for preparation of the lesson for their particular group.

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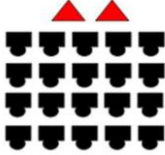
Alternative teaching

Alternative/Tiered Instruction

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- One teacher works with a small group of students while the other works with the larger group.
- The small group is used for re-teaching, review, extension or enrichment activities.
- Teachers should alternate roles so that they are not unnecessarily associated with a particular role.

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Team Teaching

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- Initially may be preceded with shadowing or demonstration teaching.
- An interchange of instructional roles with each teacher facilitating an equitable part of the lesson.
- Both teachers share in the planning, instruction, and assessment of the students.
- There is no prescribed division of authority nor is there a "lead" and an "assistant".

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How Are Gifted Learners Different?

- **Precocity**
 - *Content knowledge, skills and processes are achieved earlier than their age peers.*
 - *Curiosity and engagement in posing questions and finding the answers results in active inquiry and persistent engagement.*
 - *Seek complexity, capable of more abstract, in-depth learning.*
 - *Broad or highly specific interests motivate their learning and demand explorations that are more abstract or in-depth than age peers.*
- **THUS...**
 - *Adaptions (differentiation) are needed in classroom or school based curriculum, instruction, and assessment.*

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Adapted from Joyce VanTassel Baska 2018

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In light of your gifted/talented students, consider:

- **RIGOR** Is the content or task challenging enough? Are the students working with new ideas, thoughts, concepts, processes that would be inappropriate or unnecessary for other learners?
- **COMPLEXITY** Does the content or task ask students to think and go beyond? Are they examining or applying critical elements or processes beyond the required curriculum?
- **DEPTH** Is the breadth and depth of content or tasks deeper than the "regular" curriculum?
- **ABSTRACTION** Do the concepts, understandings or themes represent abstract ideas?
- **INNOVATION** Are students engaged in developing unique ideas, thoughts or products rather than simply reproducing other's knowledge?

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- This does NOT mean that these strategies are only used with gifted/talented learners!
- NOR that they would not be helpful for other students.
- BUT they are essential for gifted/talented learners and use of the strategies should differ IN DEGREE AND DIMENSION from how they are used with age peers.

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Adjust pace of learning, use acceleration as appropriate: This should be your first consideration!

- Use diagnostic or pre-assessment to determine entry level of learning
 - Use advanced, more specific, in-depth content or materials
 - Introduce content earlier than their age peers through advanced resources
 - Link specific students to specific content, resources, problem sets
 - Facilitate pace of learning/acceleration through flexible instructional grouping
- Heaven & Co., 2019



Add Complexity

- Focus tasks on analyze, evaluate, create
 - Add more or different variables to a task *Consider a historical event from its period of time. Consider a historical event from a point of view of one of the historical figures.*
 - Use multiple or different sources of information.
 - Consider a concept from a thematic frame such as justice, change, systems.
 - Generate alternatives
 - Generate new questions to be explored
- Heaven & Co., 2019



Increase Depth

- Show multiple examples or applications of a concept
 - Determine an appropriate theme and provide supporting evidence
 - Extend the knowledge base beyond age peers curriculum
 - Use tasks that require symbolic interpretations
 - Critically examine, judge, evaluate situations, problems, or issues
 - Increased knowledge of the content or discipline.
 - Introduce thinking models such as inquiry.
- Heaven & Co., 2019



Engage in Abstractions

- Generalize from concrete data to abstract
- Given a theme synthesize information within or across disciplines
- Focus understanding of a text on a abstract concept or theme such as courage, loneliness.
- Consider abstract concepts and determine meaning



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Thoughts

- In what ways might we weave elements of complexity, depth, abstractness and innovation into our current instruction?
- How can we use the learning needs of gifted students as a lens to examine our current practices?
- An example...
Problem Based Learning
Project Based Learning



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Problem Based Learning

- **Problem based learning** involves the student in defining the problem that is answered through their work.
- There is no predetermined outcome. However, the student follows specific, prescribed steps in the process. (What would be the essential elements to include in a plan for the school garden?)
- The student investigates the problem using their prior knowledge as well as new knowledge built from their research.
- The duration of the process is usually short term but depending on the scope of the investigation may be lengthy.
- The study itself may be the result of their work.
- The study may be presented or shared with others in some capacity.

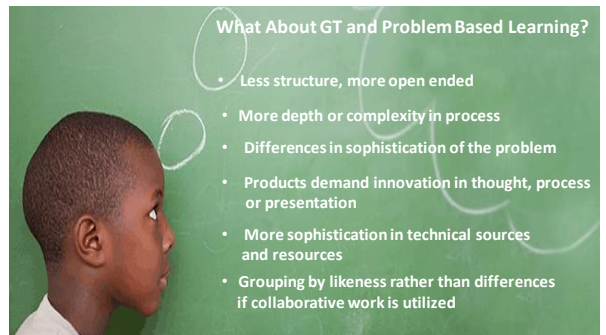


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What About GT and Problem Based Learning?

- Less structure, more open ended
- More depth or complexity in process
- Differences in sophistication of the problem
- Products demand innovation in thought, process or presentation
- More sophistication in technical sources and resources
- Grouping by likeness rather than differences if collaborative work is utilized



Project Based Learning

- The student defines the final result of their work prior to its start. (I want to design a plan for the school garden.)
- The students establish a way to pursue the work.
- The student is given some general but flexible steps in their work process.
- Students typically combine current knowledge with their research or experimentation results.
- The duration of the project is most frequently several weeks or even months.
- Project based learning results in a tangible product or performance.



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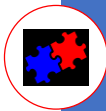
What About GT and Project Based Learning?

- Innovation in thought, ideas, processes or projects is expected.
- Less scaffolding of the process
- More sophisticated, technical or varied sources and resources.
- Freedom to think outside the box, go beyond typical responses
- Greater depth and/or complexity in projects
- Grouping by likeness rather than differences if collaborative work is utilized.



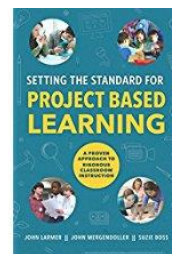
Problem Based Learning and Project Based Learning Commonalities

- Student centered learning
- Focus on open-ended tasks grounded in real life applications
- Emphasis on student independence and *inquiry*
- Teachers as facilitators
- Requires critical reflection and analytical thinking
- Advances student prior knowledge on a topic or idea
- Requires goal setting
- Encourages hypothesis testing
- Delivers content and skills reflecting academic standards.
- Authentic applications of content and skills

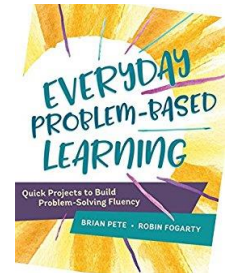


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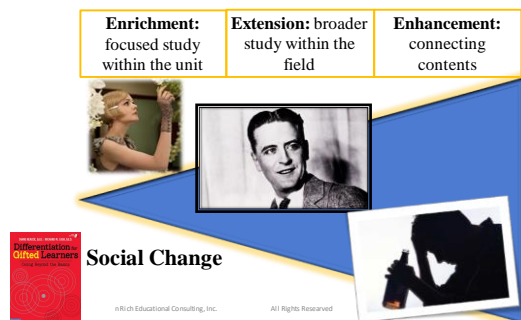
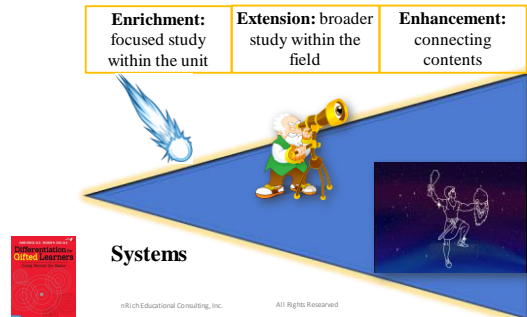
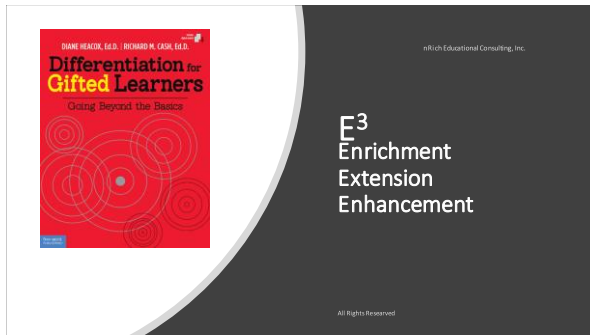
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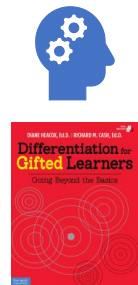
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E3 Design: Keep in mind...

- Focus on concept development/understandings (generalizations & principles)—go high
- **Why** does the content matter—relevance and authenticity
- **Who** would care about the product—meaningfulness and authenticity

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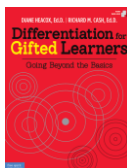


Math: Ratio/Proportion

- **Enrichment:** Investigate how ratio/proportion are used in daily life. Create a way to inform others of the need to understand ratio/proportion.
- **Extension:** Research how mathematicians or statisticians use ratio/proportion to relay information. Create a job description for a mathematician or statistician. Use this to plan HS/college course work.
- **Enhancement:** Identify how ratio/proportion can be used to distract or distort information. Produce an app to help others with interpreting ratio/proportion.

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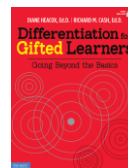
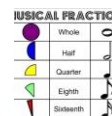


Math: Fractions

- **Enrichment:** Create a picture book for younger students to teach them about the daily use of fractions.
- **Extension:** Research the history of fractions. Find out why there was a need for fractions. Report your findings to a math teacher or professor of mathematics for evaluation.
- **Enhancement:** Demonstrate how fractions can change the mood or genre of music. Create a piece of music in an app that can be changed through different fractions. Share your composition with the Music teacher

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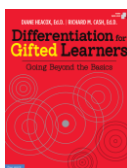


Math: Number Sense

- **Enrichment:** Find numbers around you (home and school). Draw a picture that shows how important numbers are in the daily life of your classmates.
- **Extension:** Construct math equations (+/-) to challenge your friends. Be sure you have the answers!
- **Enhancement:** Create a picture book that can help someone learn how to count.

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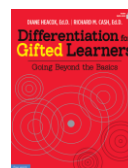


Science: Intermolecular Forces

- **Enrichment:** Illustrate how surface tension works, making it understandable to a younger student.
- **Extension:** Describe how surface tension is used in multiple sports. Present your findings to a coach or athlete to help them improve performance.
- **Enhancement:** Create a new usable product that makes use of cohesion/adhesion. Have your product idea evaluated by a consumer.

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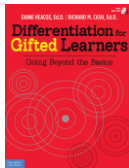


Science: Water Systems

- **Enrichment:** Research water's effect on the local community. Create a PSA for your neighbors about water conservation.
- **Extension:** Investigate professionals who specialize in water quality and cite their importance to the local and national community. Design and implement a way to share the values these professionals bring to the community.
- **Enhancement:** Illustrate how water is used to control or manipulate communities, states and/or nations. Enact a strategy to convince the government agency of the importance of water quality and management.

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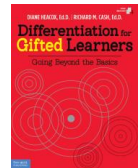


Science: Characteristics of Animals

- **Enrichment:** Pick your favorite animal and describe in a drawing its coloring, size (compared to other animals), body covering. Be sure to show its head, eyes and limbs. Share your drawing with your classmates.
- **Extension:** Compare and contrast two different animals found in your neighborhood. Based on the characteristics of the animal, how should we take care of these animals.
- **Enhancement:** Become a Zoologist! Create a zoo that has at least 7 different types of animals. You may show your zoo in any way you find appealing.

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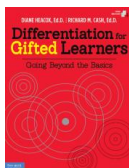


ELA: Study of Character

- **Enrichment:** Choose one of the lesser characters from *A Midsummer Night's Dream* (such as Philostrate) and from using available text/subtext and context, construct fuller detailed characteristics for the actor who will play the part. Include costume design, movements, and other relevant details.
- **Extension:** Compare and contrast at least 2 lesser characters from *Romeo and Juliet* & *A Midsummer Night's Dream* and show their impact on plot development and movement. Share your findings with a theater or Shakespearean expert for review.
- **Enhancement:** Define how playwrights use lesser characters to advance plot, create intrigue, deflect attention or any other theatrical device. Write a scene in which a minor character makes an impact for the drama class to perform.

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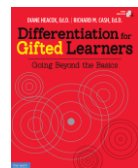


ELA: Fairy Tales

- **Enrichment:** Collect and analyze several examples of Cinderella across cultures. Create a poster for the library that illustrates how each promotes a lesson.
- **Extension:** Compare and contrast how fairy tales are used in different cultures. From your findings create and implement a way that helps others understand the importance of fairy tales.
- **Enhancement:** Analogizing from current events, create a fairy tale that has purpose and meaning to younger students. Be innovative in how you share the tale.

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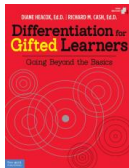


ELA: Main Idea

- **Enrichment:** Find a new book (one you have never read) and define the main idea in the book. Share your book with a classmate to encourage them to read the book.
- **Extension:** After reading *Anansi the Spider*, create your own Anansi story with a new main idea. You may draw or act out your story for the class.
- **Enhancement:** Work with a friend to create a story that promotes friendship or teamwork. Share your story with the class.

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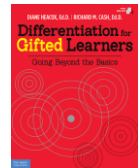


Social Studies: Regions of the USA

- **Enrichment:** Study the state in which you were born, or where you would like to live. Identify the qualities of the state and how it adds value to the region. Design a session to promote your state at the National Association of Regional Council's (NARC) annual convention.
- **Extension:** Compare and contrast at least 3 regions of the US to regions of other countries. Prepare an interactive lesson for older students on the importance of regional identity/economic dependence/inter-regional alliance...
- **Enhancement:** Research the concept of "regional identity." Create a document or app real estate professionals could use to help them sell homes or locations.

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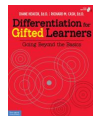


SS: Civil Rights

- **Enrichment:** Research significant individuals of any civil rights movement. Construct a detailed biography on the person that offers insight into why they involved themselves in the fight. Craft a way to present the information to others that encourages them to fight for rights.
- **Extension:** Choose at least two civil rights movements to compare and contrast. Using this information, design a format to share the information. The focus must be on the struggles for rights, the impact they have on society and how rights can be achieved.
- **Enhancement:** Select a worthy cause that needs attention. Using your knowledge of rights movements, construct a plan for your movement. Consider how you will recruit others, disseminate information, and make changes necessary. Meet with others to see if your plan has value and merit.

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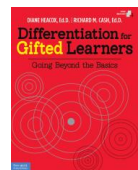


Social Studies: ME!

- **Enrichment:** Create a "billboard" that can tell others about how unique/special you are. Put your billboard up in the school for others to get to know you.
- **Extension:** Using a web graphic organizer, show how you are connected to and influence others. Be sure to include people in your home, community, city and state. Share your web graphic with someone special to you.
- **Enhancement:** Write a story or comic book about yourself that highlights your unique/special abilities. Focus on your "super powers" that make others feel good. Put your book in the classroom or school library.

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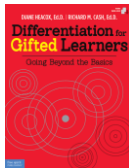


FACE: Planned Obsolescence

- **Enrichment:** SCAMPER a used garment, such as shirt, to create a new product. Have your new item evaluated by your peers for wear ability, fashion sense and utility.
- **Extension:** Do a longitudinal study of two different fashion designers (over at least a 10 year period). How did each designer use the concept of planned obsolescence to their (dis)advantage. Share your findings with a clothing expert for review.
- **Enhancement:** Research the concept of planned obsolescence outside the fashion industry. Evaluate and make a claim regarding the concept as an economic tool. Report your claim with evidence to an economics teacher for feedback.

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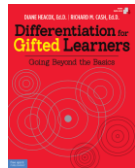


PE: Sportsmanship

- **Enrichment:** Investigate the level and quality of sportsmanship in your school. Be sure the include all grade levels P-12. Report your findings, with recommendations for improvement, to Administration and the Activities Directors.
- **Extension:** Study at least 2 professional or college level sporting events and the sportsmanship of the players. Compare/contrast how the players' sportsmanship effected the outcome of the game. Share your findings with fans of the team.
- **Enhancement:** Research the concept of sportsmanship and its effect on competitiveness, motivation and desire to participate. Going beyond sports, why is it important for people to be good sports. Write and submit an editorial to the local paper for publication.

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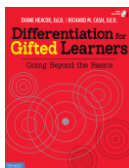


World Language: Language/Culture

- **Enrichment:** Study the impact ____ has had on your local community (from language to restaurants to politics). Report your finding to the Chamber of Commerce regarding the importance of ____.
- **Extension:** Compare ____ to English (language structure). Create an info-graphic for the classroom that shows the comparison to help others learn the language.
- **Enhancement:** Do an historical study of the origins of _____. Show how the language has changed over time, the people it has influenced, its impact on culture/politics/the economy/social media. Share your information with a World History class.

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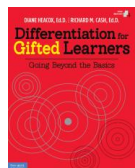


Music: Duration

- **Enrichment:** Study the school's fight song. In an info-graphic, show the meter, tempo, beat and rhythm to explain to your classmates how the song strengthens the school community.
- **Extension:** Study a composer of choice, who used duration (meter, tempo, beat and rhythm) expertly. Synthesize a piece of music the band/orchestra could play that helps them understand the composer's impact on the world of music.
- **Enhancement:** Choose a visual commercial that includes music. Define why the music makes an impact on the quality of the commercial's message. Share your evaluation with an advertising expert for review

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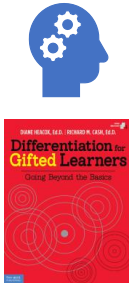


E3 Design: Keep in mind...

- Focus on concept development/understandings (generalizations & principles)—go high
- **Why** does the content matter—relevance and authenticity
- **Who** would care about the product—meaningfulness and authenticity

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What did you learn?

How will you apply this with your students?

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Bring us to your school!



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