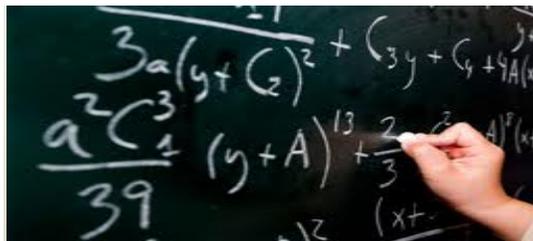


Planning Checklist

- ❑ **Begin with data to make instructional decisions.** Use tools such as the MSTAR Universal Screener and Diagnostic Assessment to determine how to differentiate content to increase student learning.
- ❑ **Analyze mathematics standards.** Choose a skill that is conceptual in nature. What is the essential question(s) and understanding?
- ❑ **Develop the content.** What concepts, facts, and vocabulary do students need to know? What content will stretch their minds?
- ❑ **Engage the students.** Make connections between past and present learning and students' interests.
- ❑ **Explore.** How will students develop their conceptual understanding? Will students actively learn through large group or small group instruction? Will they be given a real-world problem to solve, inquiry, or a project?
- ❑ **Explain.** How will students verbalize, write, and explain their conceptual understanding?
- ❑ **Elaborate.** Are there additional activities that encourage students to think beyond the grade level skill?
- ❑ **Evaluate.** How will you assess understanding of key concepts?



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Math in Many Ways: Using MSTAR Data to Differentiate Instruction

SMU Research in Mathematics Education

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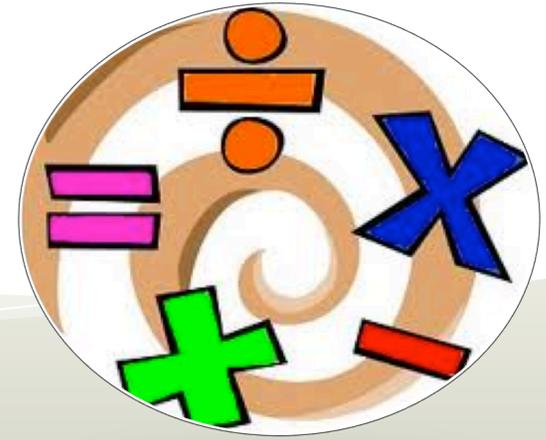
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Differentiation

Differentiation develops deep mathematical understanding while accommodating a diverse range of student abilities, interests, and prior experiences. Differentiation is the process of teaching that maximizes student growth through curricula that are individualized in content, process, and/or products. This process enables teachers to meet each student where they are thereby strengthening their learning process.



Differentiation Strategies

Content Strategies

Drive content selection by skill and interest.

- Use MSTAR Universal Screener, the MSTAR Diagnostic Assessment, and MSTAR Professional Development Trainings to make data a part of your ongoing cycle of instructional improvement.
- Adjust content to meet students' needs in conjunction with the RtI support system.
- Adjust content to meet the needs of gifted and talented students by compacting curriculum to move students beyond the curriculum that they have already mastered.

Process Strategies

Determine how a student comes to understand and assimilate facts, concepts, and skills and teach him/her in a way to grow understanding.

- Teach to incorporate a variety of learning styles.
- Flip your classroom!
- Apply strategies such as Cognitively Guided Instructional Theory to assess students' thinking to design problems that will develop students' skills.
- Enable students to self-pace or self-direct learning of content, providing the best fit for students' learning style.

Product Strategies

Students demonstrate mastery by creating products that best fit their learning style and level of ability. Products could include:

- Creating a model or representation
- Presenting a report or teaching a lesson
- Identifying and extending a pattern
- Classifying and ordering
- Making inferences and drawing conclusions
- Interpreting data
- Creating and testing a hypothesis
- Journaling a process