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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**Works Consulted**


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**Math in Many Ways: Using MSTAR Data to Differentiate Instruction**

**SMU Research in Mathematics Education**

Dawn Woods, Deni Basaraba, Erica Simon, Savannah Hill, & Beth Richardson

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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**

<table>
<thead>
<tr>
<th>Content Strategies</th>
<th>Process Strategies</th>
<th>Product Strategies</th>
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<tbody>
<tr>
<td>Drive content selection by skill and interest.</td>
<td>Determine how a student comes to understand and assimilate facts, concepts, and skills and teach him/her in a way to grow understanding.</td>
<td>Students demonstrate mastery by creating products that best fit their learning style and level of ability. Products could include:</td>
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<tr>
<td>• 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.</td>
<td>• Teach to incorporate a variety of learning styles.</td>
<td>• Creating a model or representation</td>
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<td>• Adjust content to meet students’ needs in conjunction with the RtI support system.</td>
<td>• Flip your classroom!</td>
<td>• Presenting a report or teaching a lesson</td>
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<td>• 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.</td>
<td>• Apply strategies such as Cognitively Guided Instructional Theory to assess students’ thinking to design problems that will develop students’ skills.</td>
<td>• Identifying and extending a pattern</td>
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<td>• Enable students to self-pace or self-direct learning of content, providing the best fit for students’ learning style.</td>
<td>• Classifying and ordering</td>
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<td>• Making inferences and drawing conclusions</td>
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<td>• Interpreting data</td>
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<td>• Creating and testing a hypothesis</td>
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<td>• Journaling a process</td>
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