

## Transcript – Amplifying Instructional Tasks

We have also seen this graphic in Introduction to the Revised Mathematics TEKS: Focal Points and TEKS Comparison module to illustrate that amplifying an instructional task is not necessarily to “turn the volume all the way up to the maximum volume.” Rather how can we, in the given time, take an existing problem and turn it up “one or two levels?”

What role does the mathematical processes standards play when “amplifying” an instructional task?

Some of your responses may include the following:

- The process standards allow for connections to problems in the real world which are seldom isolated, one skill problems.
- The process standards also allow for connections across the disciplines which, again, often incorporate multiple mathematical skills.

## Transcript – Considerations When Amplifying Tasks

Remember the considerations for amplifying a task from Introduction to the Revised Mathematics TEKS: Focal Points and TEKS Comparison module.

- Related mathematical ideas within or across the focal points, grade level connections, and financial literacy standards
- Opportunities to extend the given context
- Opportunities to use various tools and materials including manipulatives and technology
- Opportunities for students to collaborate in meaningful ways
- Strategies to meet student needs

How are the revised mathematical process standards embedded in these considerations?

Some of your responses may include the following:

The Mathematical Process Standards

- are embedded within each focal point, providing the mortar that allows students to make connections within and between the focal points.
- require student to extend their understanding of mathematics in everyday life, society, and the workplace – including connections outside of discipline.
- require students to use tools such as real objects, manipulatives, paper/pencils, technology and mental math.
- require students to communicate mathematical ideas and use mathematical relationships to make connections between and within ideas.

The last consideration listed is “Strategies to meet student needs.” We may need to consider how to apply the process standards in different ways to meet the different needs of our students.

How do you take the needs of our students into consideration?

When providing a task, how could we provide entry to the task to meet the needs of a struggling student? An English language learner? An advanced student? A struggling advanced English language learner?

Did you consider the following:

- Using the learning styles of the student?
- Accessing prior knowledge?
- Scaffolding instruction?
- Providing multiple entry points?
- Using language acquisition tools such as word banks and sentence frames?
- Providing students with the opportunity to discuss the mathematics?
- Providing activities/tasks that make connections to the real world?
- Providing students with necessary background knowledge to make sense of real-world context which may be unfamiliar to them?

## Transcript – Meeting the Needs of All Students

The following exercise will refresh our knowledge of the documents reviewed in the Introduction to the Revised Mathematics TEKS: Focal Points and TEKS Comparison module and define additional or new vocabulary related to meeting the needs of all students.

Now pause this video and complete the exercise below. When you are done, return to this video.

Now that we have reviewed the documents, how do the documents and their descriptions provide insight into ways to help us meet the needs of our students?

Some of your responses may include the following:

- The ELPS provide strategies to support the English language learner with the language of mathematics.
- Cross-disciplinary instruction provides students with opportunities to learn the mathematics in a relevant manner – making connections to the real world and across additional content areas.
- Providing multiple entry points is one way to scaffold the instruction based on the needs of the student, which could include the use of real objects, manipulatives, paper/pencil task, technology, and graphic organizers.
- Levels of cognitive demand support creating tasks that not only meet the needs of students, but also engage and challenge students. In addition, they provide students with different opportunities to make the connections and demonstrate their understanding of the mathematics.