

The Revised Math TEKS (Grades 9-12) with Supporting Documents

This is the first of four modules to introduce the revised TEKS for high school mathematics. The goals for participation are to become familiar with the revised TEKS and the TEKS comparison documents, to examine how to use the documents to improve overall mathematics instruction, and to explore vertical alignment of mathematical concepts and processes within the revised TEKS. CPE credit is 3.

Introduction

This section outlines the goals for participation in this module.

How Do You Look at Things?

Explore the revised math TEKS through three perspectives: the forest, the tree, and the leaf.

Looking at the Revised TEKS

Review the revised TEKS for your content area.

Scavenger Hunt Activity

After a quick survey of the revised TEKS, complete the *Mathematics TEKS Scavenger Hunt* in your journal.

Revised TEKS Summary

Reflect on the observations you have made about the revised TEKS.

Introduction to the Process Standards

Read through the introduction section of the revised TEKS for your content area.

Three-Word Summary Activity

Summarize each process standard with a short phrase.

Brick and Mortar

Think of a brick wall as an analogy, the content standards are bricks, and the process standards serve as the mortar to hold the content together.

Combining Student Expectations

Explore the impact the mathematical process standards have on content student expectations and the way we expect students to respond to questions.

Your Turn: Example I

Identify which process standards are being utilized as you examine an activity.

Your Turn: Example II

Identify which process standards are being utilized as you examine an activity.

Reflection

Reflect on what you have learned about the mathematical process standards.

Using the Mathematical Process Standards to Build Depth and Complexity

Explore the multiple connections that need to be made in order for students to build a strong mathematics network.

Amplifying an Instructional Task

This section introduces the process for amplifying an existing instructional task to provide multiple connections to mathematics for students.

Algebra I: Amplifying an Instructional Task

In this activity, you will amplify an Algebra I task.

Geometry: Amplifying an Instructional Task

In this activity, you will amplify a Geometry task.

Algebra II: Amplifying an Instructional Task

In this activity, you will amplify an Algebra II task.

Amplified Task Summary

Reflect on what you have learned about amplifying an instructional task.

A Vertical Look

You will take a vertical look at key concepts and procedures in your content area.

Slope

This section explores how the concept of "slope" is built and applied across grade levels.

A Vertical Look at Key Concepts and Procedures

In this section, you will explore key concepts in the content area of your choice in more detail.

Potential Perks and Pitfalls

Consider the perks and potential pitfalls of using the *Vertical Look* document.

Vertical Alignment Charts

Explore the comprehensive *Vertical Alignment Charts* on the Project Share Gateway.

A Side-by-Side TEKS Comparison

Explore the *Side-by-Side TEKS Comparison* documents on the Project Share Gateway to examine the differences between the current and revised TEKS in relation to your content-level expectations.

Zooming In

Explore the *Side-by-Side TEKS Comparison* documents in greater detail and check your learning with an interactive activity.

Individual Study

Use the *Side-by-Side TEKS Comparison* documents to complete the *Side-by-Side Snapshot Summary* page in your journal.

Symbolizing Your Ideas

Review your summary and symbolize the most important ideas you want to remember and those you are still pondering.

Conclusion

Revisit the goals for participation in this module.

Helpful Tips

The following are tips to help you navigate this online course:

- Access the "Materials for Download" section for transcripts, documents, references, and other resources.
- Download the latest version of Adobe Reader to use the interactive journal PDF documents.
- For videos, use the controller bar to play, pause, fast-forward or rewind, and adjust video volume. Click the full screen button to increase the video size and click it again to return to normal video size.
- Click the "Previous" or "Next" buttons to move from one section of the course to another.
- Interactive activities in this course work best in Firefox, Chrome or Safari browsers. If you are using Internet Explorer, you may use the Print Screen feature to capture your work in lieu of the Print button in the interactive activity.

List of Course Activities – The Revised Math TEKS (Grades 9-12) with Supporting Documents

Use this checklist to track the completion of activities in the course.

Introduction

View the Introduction and Welcome video. Video: 01:13 min.

How Do You Look at Things?

View the How Do You Look at Things? video. Video: 01:28 min.

Looking at the Revised TEKS

View the video and review the revised TEKS. Video: 01:35 min.
Activity: 05:00 min.

Scavenger Hunt Activity

View the video and complete the *Scavenger Hunt* activity in your journal. Video: 00:44 min.
Activity: 15:00 min.

Revised TEKS Summary

View the summary video. Video: 00:44 min.

Introduction to the Process Standards

View the videos introducing the mathematical process standards. Videos: 01:52 min.

Three-Word Summary Activity

View the video and complete the 3-Word Summary Activity. Video: 00:59 min.
Activity: 10:00 min.

Brick and Mortar

View the Brick and Mortar video. Video: 00:51 min.

Combining Student Expectations

View the first two videos, complete the Integrating Student Expectations with Mathematical Process Standards activity in your journal, then watch the video for your content area.

Videos: 02:40 min.
Activity: 10:00 min.

Your Turn: Example I

View the Your Turn: Example I video, complete the activity, then watch the Activity Debrief video for your content area.

Videos: 01:18 min.
Activity: 05:00 min.

Your Turn: Example II

View the Your Turn: Example II video, complete the activity, then watch the Activity Debrief video for your content area.

Videos: 00:53 min.
Activity: 05:00 min.

Reflection

View the video and record your reflections in your journal.

Video: 00:27 min.
Activity: 05:00 min.

Using the Mathematical Process Standards to Build Depth and Complexity

View the video about depth and complexity.

Video: 01:03 min.

Amplifying an Instructional Task

View the video introducing the amplifying an instructional task activity.

Video: 00:59 min.

Algebra I, Geometry, or Algebra II: Amplifying an Instructional Task

View the videos and complete the activity for your chosen content area (Algebra I, Geometry, or Algebra II).

Videos: 08:00 min.
Activity: 15:00 min.

Amplified Task Summary

View the summary video.

Video: 00:40 min.

A Vertical Look

View the introductory video.

Video: 00:45 min.

Slope

- View the videos about slope and record any notes in your journal.

Videos: 11:00 min.
Activity: 05:00 min.

A Vertical Look at Key Concepts and Procedures

- View the video and explore the key concepts for your content area.

Video: 01:03 min.
Activity: 05:00 min.

Potential Perks and Pitfalls

- View the video and complete the Perks and Pitfalls activity.

Video: 00:57 min.
Activity: 05:00 min.

Vertical Alignment Charts

- View the video and visit the link to see the Vertical Alignment Chart in more detail.

Video: 00:26 min.
Activity: 05:00 min.

A Side-by-Side TEKS Comparison

- View the introductory video.

Video: 00:36 min.

Zooming In

- Review the Revised Mathematics TEKS: Side-by-Side TEKS Comparison on the Project Share Gateway, watch the video, and then complete the interactive activity.

Video: 01:53 min.
Activity: 10:00 min.

Individual Study

- View the video and complete the Side-by-Side Summary in your journal.

Video: 00:35 min.
Activity: 10:00 min.

Symbolizing Your Ideas

- View the video and symbolize your ideas in your journal.

Video: 00:19 min.
Activity: 05:00 min.

Conclusion

- View the video to review the goals of participation for this module.

Video: 02:09 min.