



Secondary Mathematics

EDITION 1

Coach Module and Topic Internalization Protocol

Acknowledgment

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Notice

These learning resources have been built for Texas students, aligned to the Texas Essential Knowledge and Skills, and are made available pursuant to Chapter 31, Subchapter B-1 of the Texas Education Code.

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Coach Module and Topic Internalization Protocol

TEACHER PREWORK

Read the Module Overview and highlight, annotate, or record your thoughts on the progression of content in the module.

Purpose of Prework

Teachers will investigate or review the coherence of ideas across topics within this module. Returning to this protocol at the beginning of each new topic within a module helps remind teachers of the connections and coherence between the topics in the module.

STEP

1

Understand the big picture.

USE THE MODULE OVERVIEW AND TOPIC OVERVIEW

Revisit the Module Overview and annotations created as part of the prework. Read the Topic Overview. Identify how the module utilizes the concrete-representational-abstract (CRA) progression to build student learning from lesson to lesson. Identify new key terms and symbols. Use the cognates and the *How can you use cognates to support EB students?* section in the Topic Overview to start planning supports for emergent bilingual students.

USE THE SCOPE AND SEQUENCE AND TOPIC PACING GUIDE

Identify how many days are needed for both Learning Together and Learning Individually experiences. Remember that Learning Individually days should be scheduled strategically throughout the topic to support student learning based on formative assessment data.

REFLECT

Why is this topic important? How does it connect to prior topics, if applicable?

Guidance for Coaches

RECOMMENDED TIMING: 10 MIN

PURPOSE OF THIS STEP

In this step, teachers will strive to understand the big picture of the module and topic. This is important because this understanding will support teachers

to focus on the most important ideas as they teach the topic. Provide teachers support in identifying possible placements for Learning Individually days.

IMPLEMENTATION

Guide teachers as they read the Module and Topic Overview prompting them to highlight, annotate, and/or record important ideas as they read. After doing so, support teachers to identify how many days are needed for both Learning Together and Learning Individually experiences based on the Scope and Sequence and Topic Pacing Guide.

GOING DEEPER

- Additionally, in Step 1 examine the coherence of important ideas to make connections to prior and future learning. This will support teachers in their understanding of the coherent nature of the instructional materials both within and across modules and topics and enable them to leverage students' prior knowledge when introducing new concepts.

STEP 2

Know your destination.

USE THE END OF TOPIC ASSESSMENT AND ANSWER KEYS

Complete the End of Topic Assessment considering exemplar strategies. Note what critical knowledge and skills students should know and be able to do by the end of the topic, including examining the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS).

REFLECT

What models, strategies, or terminology are critical for student success on the assessment?

Guidance for Coaches

RECOMMENDED TIMING: 20 MIN

PURPOSE OF THIS STEP

In this step, teachers will work towards understanding the goals of the topic. This is important because as teachers are facilitating lessons throughout the topic, they will have a clear understanding of what students should know and be able to do by the end of the topic.

IMPLEMENTATION

If possible, provide time for teachers to complete the End of Topic Assessment. Have them consider exemplar strategies as they work. Support teachers to summarize what students should know, including relevant strategies, or be able to do by the end of each topic, leveraging the TEKS and ELPS to do so.

GOING DEEPER

- Identify how the standards are spiraled or introduced in the assessment and how students demonstrate proficiency with the standards on the assessment.

STEP 3

Examine the arc of learning.

USE THE MODULE OVERVIEW, TOPIC OVERVIEW, AND ASSESSMENT

Analyze the big ideas for each lesson to understand how knowledge and skills build over the topic, including any necessary prior knowledge students may need to successfully engage with the mathematics in the topic. Examine and develop familiarity with mathematical strategies required in the topic.

REFLECT

How does the math in the arc of learning move from simple to complex?

Guidance for Coaches

RECOMMENDED TIMING: 15 MIN

PURPOSE OF THIS STEP

In this step, teachers will examine the arc of learning throughout the module and topic. This is important because they will develop an understanding of the topic as a whole and how concepts build from lesson to lesson.

IMPLEMENTATION

Support teachers to analyze the big ideas in each lesson enabling them to identify needed prior knowledge before teaching a new lesson and leverage this knowledge as they facilitate the lesson. Support teachers to engage students in this work by becoming familiar with any mathematical strategies required in the topic. Specifically, structure collaborative planning time so teachers have opportunities to practice and ask questions about unfamiliar mathematical strategies, especially those leveraging conceptual understanding. Additionally, identify low- and high-priority lessons for teachers.

GOING DEEPER

- Discuss what will be new or different about how students will engage with the skills and concepts.
- Identify potential common misconceptions and opportunities for just-in-time supports.
- Determine potential opportunities for enrichment or extension.

**STEP
4****Organize your resources.****USE THE MATERIALS NEEDED PORTION OF THE TOPIC OVERVIEW**

Locate needed resources, supplies, and/or materials. Connect with colleagues, as needed, to support all learners.

Guidance for Coaches

RECOMMENDED TIMING: 5 MINUTES

PURPOSE OF THIS STEP

Teachers will organize needed materials that support the implementation of the topic. This is important because as each lesson unfolds, teachers will have the necessary materials for successful implementation.

IMPLEMENTATION

Support teachers to do this work by ensuring appropriate materials are available. Additionally, structure collaborative planning time to support collaboration among colleagues.

GOING DEEPER

- Identify how using the tools and resources provided allows all students access to grade-level content.
- Plan for additional collaboration between general educators, special educators, interventionists, and bilingual program staff to ensure students are provided with aligned support.

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