# EDUCATION MATH TECHBOOK

# **Problems Worth Solving**

Professional Development Overview for Florida Educators

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# Learn more at: DiscoveryEducation.com/FLMath

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Discovery Education Professional Development inperson learning opportunities empower participants with a rich and relevant learning experience.

# Overview of Discovery Education Professional Development

Discovery Education Professional Development complements each Math Techbook adoption, providing foundational support as districts transition or expand their implementation of digital resources. Participants engage in unique learning experiences designed to build teacher efficacy and confidence in using digital resources to enhance math instruction. Immersive experiences bring learning to life and model the tenets of Techbook in action: inquiry, multimodal resources, and high-yield instructional strategies.

Each district using Discovery Education Math Techbook<sup>™</sup> will receive a specific number of professional development days free of charge (based on the allocation table below), which can be delivered as needed throughout the duration of the adoption cycle.

Below are the metrics used when determining the appropriate levels of professional development that are included free of charge with a Math Techbook implementation.

Total # Student Licenses Purchased	Level of Professional Development
1 to 300 Student Digital Licenses	Continuous Online Support at Point of Use
301 to 499 Student Digital Licenses	1 On-site Day of PD and Continuous Online Support at Point of Use
For Every 500 Student Digital Licenses	2 On-site Days of PD and Continuous Online Support at Point of Use

We empower K–12 educators with a logical progression of digital learning that can be immediately transferred to classroom practice, effectively combining content knowledge, pedagogy, and technology.

# 6–12 MATH TECHBOOK PROFESSIONAL DEVELOPMENT CORE TEACHER SESSIONS

# Getting Started with Discovery Education Math Techbook™

Rediscover mathematics! Math Techbook contextualizes math learning and provides digital tools to help students develop lasting math proficiency. In this introductory session, participants experience the Discover–Practice–Apply learning cycle model and investigate the engaging resources embedded in Math Techbook. Participants explore technology-enhanced interactives, videos, the Math Tools, and Apply activities as well as connect rich learning opportunities to the Standards for Mathematics.

### **Guiding Questions:**

- How can Math Techbook enhance student learning?
- How can the Discover–Practice–Apply model assist me in the planning of effective lessons?

### Learning Targets:

- I CAN navigate Math Techbook to locate and utilize a variety of multimodal resources.
- I CAN use the resources from Math Techbook to plan purposeful learning opportunities for my students.

# Assessing Student Progress with Discovery Education Math Techbook™

The Math Techbook Dashboard provides actionable data gathered from students throughout the Math Techbook Discover–Practice–Apply instructional cycle model. This session highlights the effective use of the Dashboard data to inform instructional practices. With opportunities to explore and reflect, the participants utilize structured planning time, resulting in a balanced learning experience between Math Techbook and Standards for Mathematics.

#### **Guiding Questions:**

- How can I use the data in Math Techbook to make timely and relevant instructional designs that increase student learning?
- Why is using data to make instructional decisions integral to student success?

#### Learning Targets:

- I CAN explain the importance of using assessment to guide my instructional planning with Math Techbook.
- I CAN describe how I will use Math Techbook Dashboard data to inform my instruction.
- I CAN explain how Math Techbook can support students in becoming self-directed learners.

## Building Conceptual Understanding with Discovery Education Math Techbook™

Math Techbook strikes a balance between conceptual understanding and procedural fluency. Immersed in a learning experience, participants uncover the powerful impact of Math Techbook as it is leveraged to support conceptual understanding in the classroom. Exploration time enables participants to dive deeply into the Discover tab. This deep dive further reveals the inspiring resources embedded in the Engage, Investigate, and Summarize tabs, while at the same time connecting rich learning opportunities with the Standards for Mathematics.

#### **Guiding Questions:**

- Why is it important to build learning experiences around conceptual understanding?
- How can Math Techbook enhance student learning?

#### Learning Targets:

- I CAN differentiate between conceptual understanding and procedural fluency.
- I CAN plan and implement learning opportunities using Math Techbook in order to strengthen student conceptual understanding.

## **Students as Problem Solvers**

Relevant mathematics applications are woven throughout each concept of the Math Techbook. Emphasizing the development of students' problem-solving skills, this session focuses on the interconnectivity of the Apply phase of the Math Techbook instructional cycle, the Math Tools, and Mathematical Practices. Participants collaborate with one another to infuse content within the Apply tab into their instruction, thus supporting students in solving open-ended application problems.

#### **Guiding Question:**

• How can planning meaningful learning experiences using the resources in Math Techbook encourage my students to become deeper thinkers and effective problem solvers?

#### Learning Targets:

- I CAN explain the difference between a math problem and a math task.
- I CAN support my students in using the Mathematical Practices to guide them through problem solving.
- I CAN design learning experiences within Math Techbook that require my students to persevere in solving problems.

# 6–12 MATH TECHBOOK PROFESSIONAL DEVELOPMENT ADMIN SESSION

# Beginning the Discovery Education Math Techbook<sup>™</sup> Journey

Math Techbook contextualizes math learning and provides digital tools to develop lasting math proficiency. In this introductory session, administrators will experience the Discover–Practice– Apply learning cycle model and investigate the engaging resources embedded in Discovery Education Math Techbook<sup>™</sup>. After an exploration through the technology-enhanced interactives, videos, the Math Tools, and Apply activities, both individual and collaborative opportunities are provided in order to support teachers in reflective practice.

#### **Guiding Questions:**

- How do the multimodal resources and features within Math Techbook provide opportunities to enhance student learning?
- How can I support teachers in planning effective lessons that use Math Techbook?

#### **Learning Targets:**

- I CAN navigate Math Techbook to locate and utilize a variety of multimodal resources.
- I CAN use the resources from Math Techbook to support teachers in planning effective lessons.



# JUST-IN-TIME INSTRUCTIONAL SUPPORT

Designed to illustrate the value of incorporating new strategies, job-embedded instructional support is a natural follow up to full-day, in-person learning sessions that bridge the gap between theory and practice, reduce implementation barriers, increase fidelity, and reinforce efforts. Participants work directly with a Discovery Education Professional Development Consultant to apply knowledge and skills learned during whole-group learning sessions.

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