

Frequently Asked Questions



Question: How will children practice and learn basic facts?

Answer: Children will learn and practice all of the basic facts in many different ways without having to complete an overwhelming number of drill pages. They will play mathematics games, work with Fact Triangles, and take part in short oral drills to review facts as a group. Children also use Addition/Subtraction and Multiplication/Division Fact Tables to practice facts and keep a record of the facts they have learned.

Question: Why are children using calculators? Will they become dependent on the calculator for solving problems?

Answer: In *Everyday Mathematics*, children use calculators to learn concepts, recognize patterns, develop estimation skills, and explore problem solving. They learn that a calculator can help them solve problems beyond their current paper-and-pencil capabilities; they also learn that, in some situations, they can use their own problem-solving abilities to get an answer more quickly than they can with a calculator. Children learn to use their basic fact and operations knowledge and estimation skills to decide whether the calculator's solution is reasonable. Children do not become dependent on calculators. Instead, they become comfortable and skilled users of a practical technological tool.

Question: What is the purpose of Math Boxes? Why aren't the problems related?

Answer: Math Boxes are one way *Everyday Mathematics* provides children with continuous practice and review of *all* mathematical content. Almost every lesson includes a Math Box page in the *Math Journal* as part of the Ongoing Learning and Practice section of the lesson. The problems on a Math Box page provide practice in various skills and concepts learned up to that point. This way, children don't forget what they have learned, and they maintain and even improve their skills. Math Boxes are designed as independent activities, but at the beginning of the year, some guidance may be needed. Teachers often use Math Boxes to make informal assessments of children's progress.

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Question: How does *Everyday Mathematics* prepare children for standardized tests?

Answer: *Everyday Mathematics* prepares children for standardized tests through activities that strengthen the skills needed for success on these tests and familiarize them with the standardized test format. Children play games that reinforce basic facts; frequently discuss and analyze problem-solving strategies; and learn ways to check the reasonableness of an answer. Throughout the program, children explain their thinking and reasoning in writing, which prepares them for the extended-response questions that are becoming increasingly significant on state tests. And because the program distributes instruction among all the mathematics strands and continually revisits topics, children approach standardized tests without gaps in their basic knowledge.

Question: How will my child develop strong computation skills?

Answer: Children gain the fact knowledge they need for computation from basic facts practice which consists of playing mathematical games, working with Fact Triangles, using fact tables, and taking part in short oral drills to review facts as a group. They develop an understanding of the need for computation, which operations to use, and how to use those operations by solving problems through number stories about real-life situations. They are given the opportunity to invent and use their own algorithms to solve problems, which they share and explain to their classmates. They also practice mental arithmetic and do activities that encourage rounding and estimating numbers mentally. All of these activities help children compute with accuracy and speed.

Question: Why do children play games during mathematics lessons?

Answer: *Everyday Mathematics* games reinforce concepts in a valuable and enjoyable way. They are designed to help children practice their basic facts and computation skills and develop increasingly sophisticated strategies. For example, some games give children experience using a calculator, while other games emphasize the relationship between the money system and place value. Games also lay the foundation for learning increasingly difficult concepts.

Children are often asked to play *Everyday Mathematics* games with family members as part of their home practice. As you learn to play the games yourself, you will begin to understand some of the ways games help children learn mathematics.

Question: Why does my child learn different algorithms to solve problems?

Answer: When children first begin learning about computation, they spend a lot of time experimenting with a variety of algorithms and sharing their own problem-solving methods. Instead of simply memorizing a set of prescribed algorithms, they learn to think, use common sense, and understand the purpose of algorithms. They are then required to demonstrate proficiency in one focus algorithm for each operation—addition, subtraction, multiplication, and division. Focus algorithms are powerful, relatively efficient, and usually easier to understand and learn than traditional algorithms. Once children have mastered the focus algorithm for each operation, they are free to use any method to solve problems.

Question: Why does my child have to move on to the next lesson if he or she hasn't mastered skills in the current lesson?

Answer: *Everyday Mathematics* is based on the idea that mastery of mathematics concepts and skills comes with repeated exposure and practice, not after just one lesson. To help children develop mastery, mathematical topics are introduced in an informal way, and then presented numerous times in different contexts with gradually more formal, directed instruction. When children revisit topics, they make new connections and gain different insights. Children regularly review and practice new concepts through activities, games, and assignments. This gives them sufficient time to internalize and master the concepts and skills that are the designated goals for their specific grade level.

Question: My child has special needs. How does the program address learning differences?

Answer: *Everyday Mathematics* offers many opportunities for teachers to meet the varying needs of each child. The program is flexible—that is, it is possible to adjust or modify most activities according to children's needs, and teachers may include additional activities for the purpose of fine-tuning a concept, providing extra practice, or helping a child with a particular learning style. Lessons involve many open-ended activities that allow children to succeed at their own skill levels. Children develop their particular strengths and improve their weak areas by playing games, inventing algorithms, writing number stories, and solving problems in *Minute Math*®+ and Math Box exercises. Teachers may group children in order to tailor instruction or an activity to meet the group's needs.

Question: How will children with advanced math skills be challenged?

Answer: *Everyday Mathematics* is designed to move children beyond basic arithmetic and nurture their higher-order and critical-thinking skills. Many children who have mastered basic facts and certain methods of computation will be challenged to apply these skills to solving everyday, real-world problems. Because teachers use questions to stimulate thinking and drive discussions, mathematically gifted children are challenged to think flexibly, articulate their understandings, and explain problem-solving strategies to their classmates. In addition, because the program is activity-based and has many open-ended activities, teachers can easily make modifications to increase the level of challenge. Throughout the lessons, there are options for enrichment, extension, and game variations, all of which can provide challenge to highly capable children. Finally, the breadth and depth of mathematics covered in the program, along with its brisk pacing, often provide challenges for children eager to explore topics such as algebra or data and chance.

Question: How do you measure each child's progress? How do you know what each child has learned?

Answer: *Everyday Mathematics* teachers assess understanding periodically and on an ongoing basis. Teachers frequently make notes of children's progress while observing them working on Math Boxes or slate activities. Teachers also evaluate children's responses to *Minute Math*^{®+}, interactions during group work or games, and written responses to Math Messages. There are Progress Checks for each unit and Beginning-of-Year, Mid-Year, and End-of-Year assessments for evaluating individual child progress as well. Teachers maintain checklists to track each child's progress toward achieving specific Grade-Level Goals. These records are used to determine whether certain topics need review and whether particular children need additional help or challenge.

Question: How can families help children become comfortable with all the new mathematics vocabulary they are learning?

Answer: People learn new words best when they encounter them many times in situations that make the meaning clear. Important math vocabulary is highlighted and explained in the Family Letter that your child brings home for each unit. Take a few minutes to review the vocabulary yourself. When your child is doing Home Links, ask questions that focus on the meaning of the newer words. Try to use the new vocabulary as you and your child do everyday activities together. Driving to the store, you might ask your child to tell you combinations of coins equivalent to a dollar. The more children hear, see, and use new words, the more able they are to add the words to their own vocabularies.