

Everyday Mathematics®

How Everyday Mathematics Differentiates Instruction To Meet the Needs of All Students

A differentiated classroom is a rich learning environment that provides children with multiple avenues for acquiring content, making sense of ideas, developing skills, and demonstrating what they know.

In this sense, differentiated instruction is synonymous with good teaching. Many experienced teachers differentiate instruction intuitively, making continual adjustments to meet the varying needs of individual children. By adapting instruction, teachers provide all children opportunities to engage in lesson content and to learn.

Though children follow different routes to success and acquire concepts and skills at different times, the philosophy of *Everyday Mathematics*, a research-based Grades Pre-K-6 mathematics program, is that all children should be expected to achieve high standards in their mathematics education.

Carefully developed and tested grade level by grade level by the authors at the University of Chicago's School Mathematics Project, *Everyday Mathematics* lessons accommodate a wide range of academic abilities and learning styles. The program:

- Begins with an appreciation of the mathematical sensibilities that children bring with them to the classroom and connects to their prior interests and experiences.
- Incorporates predictable routines that help engage children in mathematics and regular practice in a variety of contexts.
- Provides many opportunities throughout the year for children to acquire, process, and express mathematical concepts in concrete, pictorial, and symbolic ways.
- Extends children's thinking about mathematical ideas through questioning that leads to deepened understandings of concepts.

Everyday Mathematics incorporates and validates a variety of learning strategies, while emphasizing the process of problem solving as well as finding solutions. It encourages students to work in collaborative and cooperative groupings in addition to completing individual and whole-class work. The program:

- Facilitates the development and use of mathematical language and promotes academic discourse.
- Provides teachers with information about the learning trajectories or paths to achieving Grade-Level Goals.

- Highlights opportunities for teachers to access children in multiple ways over time.
- Suggests how children can demonstrate what they know in a variety of ways.
- Encourages children to reflect on their own strengths and weaknesses.

Proven Differentiation Strategies

Unlike other programs, *Everyday Mathematics* does not wait for children to fail before applying differentiation strategies. Instead, it relies on a number of instructional strategies that ensure all students achieve success.

- **Framing the Lesson:** Lesson introductions set the stage and support learning by mentally preparing children for the content of the lesson and by activating prior knowledge.
- **Providing Wait Time:** Teachers are encouraged to allow time for children to think and process information before eliciting answers to questions posed.
- **Making Connections to Everyday Life:** Lessons offer regular opportunities to build on children's everyday life by helping them make connections between common experiences and new mathematics concepts.
- **Modeling Concretely:** *Everyday Mathematics* lessons frequently include the use of manipulatives. Modeling concretely makes math accessible for children and deepens understanding.
- **Modeling Visually:** Because classrooms tend to be highly verbal places, visual representations can help children make sense of the flow of words around them.
- **Modeling Physically:** Lessons also suggest ways to have children demonstrate concepts and skills with gestures or movements.
- **Providing Organizational Tools:** Lessons provide a variety of tools to help children organize their thinking. Using diagrams, tables, charts, and graphs improves student learning.
- **Engaging Children in Discussing Math:** Lessons often suggest discussion prompts or questions and emphasize sharing and comparing solution strategies. This type of "math talk" involves not only what is done, but also why it is done, and why it is correct or incorrect. Also, journal pages prompt children to explain their thinking, which offers opportunities to access their mathematical understanding.
- **Summarizing the Lesson:** Lesson summaries offer children a chance to bring closure to the lesson, reflect on the concepts and skills they have learned, and pose questions they may still have.

Support for Teachers

Everyday Mathematics gives teachers the support they need to address different learning styles. First, the *Everyday Mathematics Teacher's Lesson Guide* contains explicit instructions for teachers on how to differentiate instruction throughout the lessons.

Second, *Everyday Mathematics* uses a three-part lesson format: 1) Teaching the Lesson, 2) Ongoing Learning and Practice, and 3) Differentiation Options. The Differentiation Options section includes *Readiness*, *Enrichment*, *Extra Practice*, *ELL Support*, and *Adjusting the Activity*.

Adjusting the Activity notes provide recommendations for tools, visual aids, and other instructional strategies that provide immediate support for all types of students. These notes also offer suggestions for open-ended questions to extend children's thinking.

Finally, each grade level of *Everyday Mathematics* includes a *Differentiation Handbook*. It explains the differentiation features within *Everyday Mathematics* lessons and includes a number of special projects, activities, and ideas for teachers to differentiate instruction even further.

Support for All Students

Research suggests that using a short readiness activity or providing some brief reminders and support *before* teaching a lesson offers struggling students a distinct learning advantage.

Everyday Mathematics includes *Readiness* activities to review previously taught skills and concepts necessary for success in a lesson.

Frequent practice is also necessary for children to build and maintain strong mathematics skills. There are many opportunities in *Everyday Mathematics* for practice through games. Games are not merely attractive add-ons, but an essential component of the curriculum. The games help children develop critical thinking and problem-solving skills. The games are easily adapted to meet a variety of practice needs.

Support for English Learners

Grade levels 1-6 of *Everyday Mathematics* includes a *Multilingual Handbook* to provide lesson-specific support for teachers to meet the challenges of a multilingual classroom. Each lesson has a brief lesson summary, vocabulary list, and an example or illustration to provide ELL students with an overview.

To support language development for English language learners, ELL support is imbedded in the lessons as well as being available as separate activities.

Support for Struggling Students

In addition to preparing students with the *Readiness* activities, *Everyday Mathematics* includes *Extra Practice Activities* to provide children with additional practice for lesson content.

For example, *Minute Math*[®]+ for Grades 1-3 and *5-Minute Math* for Grades 4-6 are collections of short mathematics activities that require little or no preparation. They can be done anywhere and are brief enough to do in about five minutes.

Support for Advanced Students

Enrichment activities also are included in many *Everyday Mathematics* lessons to apply or deepen children's understanding of lesson content. This ensures that all children can reach their greatest potential for learning.

Watch Success Multiply!

With *Everyday Mathematics*, you'll see students of all types learn mathematics and learn to love mathematics! The curriculum coincides with standards is aligned with the National Council of Teachers of Mathematics *Principles & Standards for School Mathematics* and is used by more than 3 million students in 185,000 classrooms across the United States. Developed by the University of Chicago School Mathematics Project (UCSMP), *Everyday Mathematics* is the

result of collaborative efforts by researchers, mathematics educators, administrators and classroom teachers.

To learn more about *Everyday Mathematics*, visit www.WrightGroup.com or call 1-800-382-7670.