

# The Parent's Guide to *"New Math"*

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## **Understanding "New Math" in the Context of Common Core**

Over the past decade, Common Core math has often been dubbed "new math" by many parents and educators. This term reflects the significant shift in the approach to teaching mathematics that has occurred with the adoption of Common Core standards. Many parents find themselves struggling with their children's homework, not because they can't do the math, but because the methods and language used are unfamiliar. If you've ever found yourself in this situation, this guide aims to help you understand these changes and offer ways to support your child's learning at home. Think of this as "New Math 101" for parents of elementary students in 2024.

## **The Need for Change**

Common Core was created to emphasize conceptual understanding in math education. The idea is that when students have the chance to manipulate, explore, and understand concepts through various methods, they develop a deeper and more lasting understanding. This is different from the old approach, which often involved teaching a formula or rule and having students memorize its application. Common Core encourages students to discover these formulas themselves through prior knowledge and experimentation.

This change was driven by years of underperformance in K-12 student math achievement compared to other countries. The new instructional practices are based on research and reflect the successful methods used in countries with high student performance.

## **Starting in Kindergarten**

You might think this is a lot to ask of young students, but these practices are implemented in a developmentally appropriate way. In kindergarten, children start by developing number sense, understanding that digits represent actual amounts. They learn to recognize different combinations of numbers that add up to ten (like  $9+1$ ,  $8+2$ ,  $7+3$ ) and understand the relationships between numbers. Students use tools and drawings to grasp what digits mean, discuss why certain numbers are bigger than others, and develop habits like problem-solving and using multiple strategies.

## **Eight Core Instructional Practices**

On the Common Core website, you'll find eight "Standards of Mathematical Practice." These standards guide K-12 math instruction and can also be supported at home. Here's a simplified look at these standards and how you can help your child with them:

1. **Make sense of problems and persevere in solving them:** Encourage your child to ask, "Does this make sense?" and keep trying different methods until they find a solution that makes sense.
2. **Reason abstractly and quantitatively:** Help your child understand that numbers in a problem represent real things. Use drawings and ask them to explain what each number means.
3. **Construct viable arguments and critique the reasoning of others:** Ask your child to explain their problem-solving process and listen to others' methods to learn different approaches.
4. **Model with mathematics:** Show your child how math applies to real life, like doubling a recipe or figuring out travel time.
5. **Use appropriate tools strategically:** Provide or make math manipulatives at home to help your child understand concepts through hands-on activities.
6. **Attend to precision:** Encourage careful problem-solving and clear explanations of their reasoning.
7. **Look for and make use of structure:** Help your child notice patterns and similarities in math problems to find efficient ways to solve them.
8. **Look for and express regularity in repeated reasoning:** Encourage your child to find shortcuts and general methods for solving similar problems.

Adapting to "new math" can be challenging for parents, but remember, it's not your job to become a math expert. Your child's teacher is there to guide them. Your role is to support and encourage your child's learning at home using these practices. With patience and practice, you'll be able to help your child navigate their math education successfully.