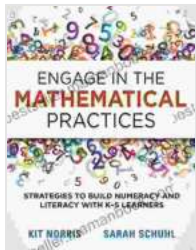


# Engage in the Mathematical Practices

The mathematical practices are a set of eight habits of mind that mathematicians use to solve problems and make discoveries. They are also essential for students to develop in order to succeed in mathematics.

The practices are:



## Engage in the Mathematical Practices: Strategies to Build Numeracy and Literacy With K-5 Learners

by Kit Norris

★★★★☆ 4.8 out of 5

Language : English  
File size : 21106 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 296 pages



1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.

## 8. Express regularity in repeated reasoning.

The mathematical practices are interconnected and interdependent. They are not a set of isolated skills, but rather a way of thinking and approaching mathematics. When students engage in the practices, they are developing their mathematical power and becoming more effective problem solvers.

### **How to Engage in the Mathematical Practices**

There are many ways to engage students in the mathematical practices.

Here are a few tips:

- **Provide students with opportunities to solve problems that are challenging but not overwhelming.** Students need to be able to struggle with problems in order to develop their problem-solving skills. However, the problems should not be so difficult that students become discouraged.
- **Encourage students to ask questions and make conjectures.** This helps students to develop their curiosity and to see mathematics as a subject that is open to exploration.
- **Have students work in groups to solve problems.** This helps students to learn from each other and to develop their communication skills.
- **Use manipulatives and other tools to help students visualize mathematical concepts.** This can help students to understand the concepts more deeply.
- **Provide students with feedback on their work.** This helps students to identify their strengths and weaknesses and to improve their

mathematical skills.

## **Benefits of Engaging in the Mathematical Practices**

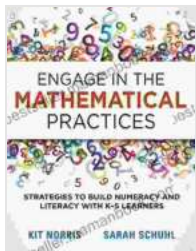
There are many benefits to engaging in the mathematical practices. Some of the benefits include:

- **Improved problem-solving skills.** Students who engage in the mathematical practices are better able to solve problems, both in mathematics and in other subjects.
- **Increased mathematical understanding.** Students who engage in the mathematical practices develop a deeper understanding of mathematical concepts.
- **Enhanced communication skills.** Students who engage in the mathematical practices develop their communication skills, both written and oral.
- **Increased critical thinking skills.** Students who engage in the mathematical practices develop their critical thinking skills, which can help them to make better decisions in all areas of their lives.
- **Preparation for college and career.** The mathematical practices are essential for success in college and career. Students who engage in the mathematical practices are better prepared for the rigors of higher education and the demands of the workforce.

The mathematical practices are a valuable tool for students to develop. They help students to become better problem solvers, mathematicians, and communicators. By engaging in the mathematical practices, students can reach their full potential in mathematics and beyond.

National Council of Teachers of Mathematics. (2000). *Principles and Standards for School Mathematics*. Reston, VA: NCTM.

National Council of Teachers of Mathematics. (2000). *Process Standards for School Mathematics*. Reston, VA: NCTM.

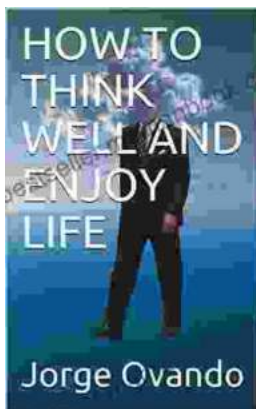


## Engage in the Mathematical Practices: Strategies to Build Numeracy and Literacy With K-5 Learners

by Kit Norris

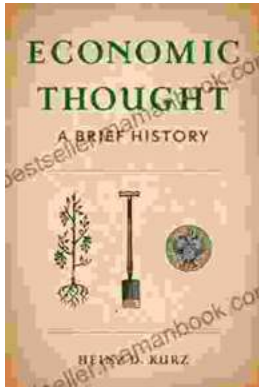
★★★★☆ 4.8 out of 5

Language : English  
File size : 21106 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 296 pages



## How to Think Well and Enjoy Life

Thinking well is a skill that can be learned and practiced. By following these tips, you can learn to think more clearly, make better...



## A Comprehensive Journey Through Economic Thought: A Brief History

Economics, the study of how societies allocate scarce resources, has a rich and fascinating history. Economic thought has evolved over centuries, shaped by...