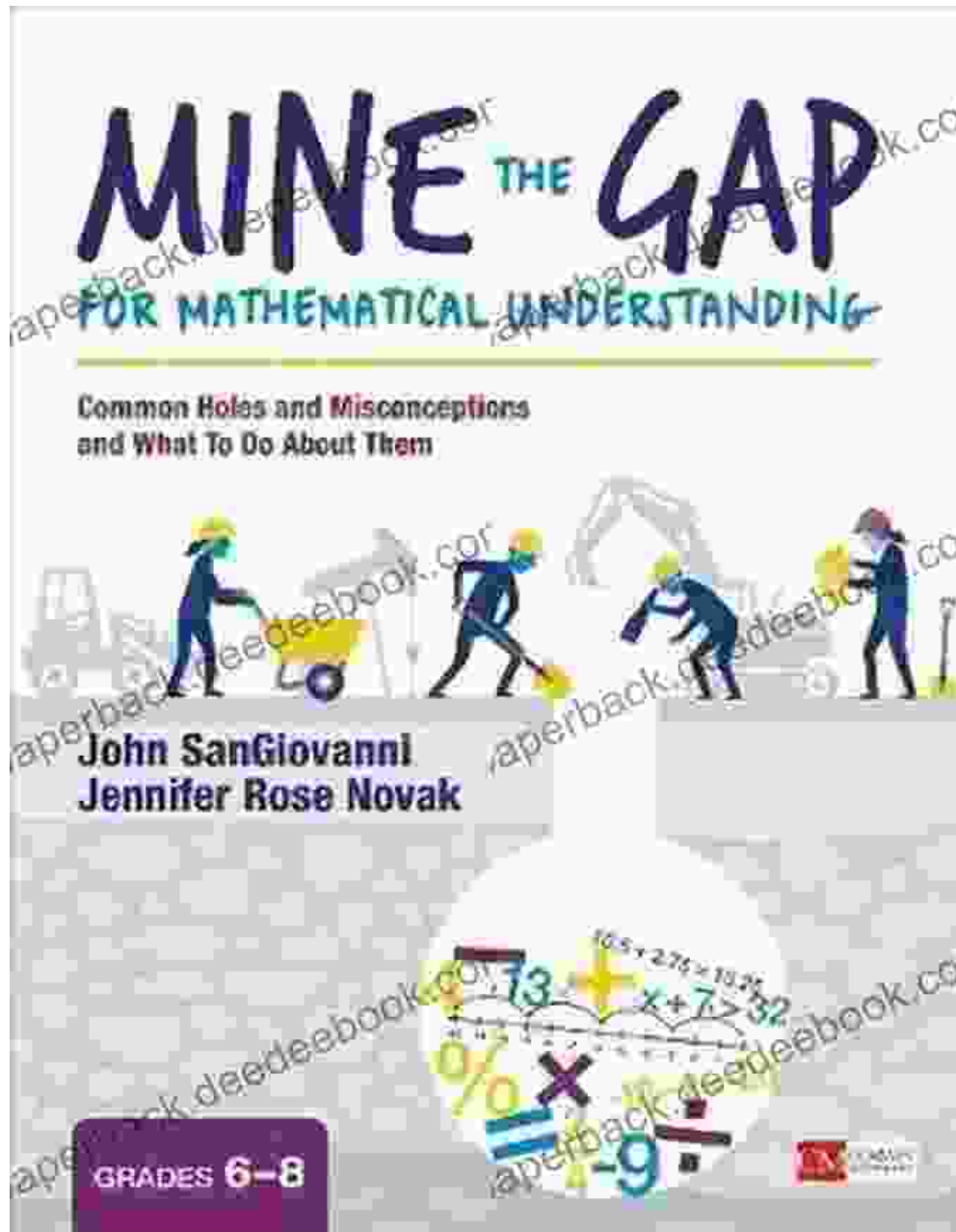


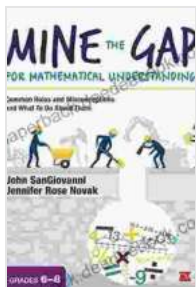
# Mine the Gap for Mathematical Understanding in All Grades



## What is Mine the Gap?

Mine the Gap is a research-based strategy designed to help students develop a deep and meaningful understanding of mathematics. It is based

on the idea that students need to be actively engaged in the learning process and that they need to have opportunities to make connections between different mathematical concepts.



## Mine the Gap for Mathematical Understanding, Grades 3-5: Common Holes and Misconceptions and What To Do About Them (Corwin Mathematics Series)

by John J. SanGiovanni

★★★★☆ 4.7 out of 5

Language : English

File size : 17806 KB

Screen Reader: Supported

Print length : 384 pages



The Mine the Gap strategy has three key components:

1. **Exploration:** Students are given opportunities to explore mathematical concepts in a hands-on, inquiry-based way.
2. **Explanation:** Students are then asked to explain their thinking and understanding of the concepts to their peers.
3. **Elaboration:** Students are given opportunities to extend their understanding of the concepts by applying them to new situations.

### Why is Mine the Gap Effective?

Mine the Gap is an effective strategy for improving mathematical understanding for several reasons. First, it helps students to develop a deep and meaningful understanding of concepts. By exploring concepts in

a hands-on way, students are able to make connections between different concepts and to see how they fit together. Second, Mine the Gap helps students to develop their communication skills. By explaining their thinking to their peers, students are able to clarify their own understanding and to learn from others. Third, Mine the Gap helps students to develop their problem-solving skills. By applying concepts to new situations, students are able to practice solving problems and to develop their critical thinking skills.

## **How to Implement Mine the Gap**

Mine the Gap can be implemented in classrooms in a variety of ways. One way to implement Mine the Gap is to use it as a whole-class activity. The teacher can begin by introducing a new concept to the class. Students can then explore the concept in a hands-on way, using manipulatives or other resources. Once students have had time to explore, the teacher can ask them to explain their thinking to the class. The teacher can then lead a discussion to help students to clarify their understanding and to make connections between different concepts.

Another way to implement Mine the Gap is to use it as a small-group activity. The teacher can divide the class into small groups and assign each group a different concept to explore. The groups can then work together to explore the concept and to develop their understanding. Once the groups have had time to explore, they can share their findings with the class.

Mine the Gap can also be used as an individual activity. Students can explore concepts on their own, using resources such as textbooks, websites, or videos. Students can then write about their understanding of the concept or create a presentation to share with the class.

## Tips for Teachers

Here are some tips for teachers who are implementing Mine the Gap in their classrooms:

- **Start small.** Don't try to implement Mine the Gap for every concept that you teach. Start with a few key concepts and gradually add more as you become more comfortable with the strategy.
- **Be patient.** It takes time for students to develop a deep understanding of mathematical concepts. Don't get discouraged if students don't understand a concept right away. Keep providing them with opportunities to explore and to explain their understanding.
- **Be flexible.** There is no one right way to implement Mine the Gap. Adapt the strategy to meet the needs of your students and your classroom.

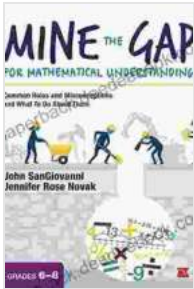
## Resources for Students

Here are some resources for students who want to learn more about Mine the Gap:

- YouCubed Tasks
- Khan Academy
- IXL Learning

Mine the Gap is a powerful strategy that can help students to develop a deep and meaningful understanding of mathematics. By providing students with opportunities to explore concepts in a hands-on way, to explain their

thinking, and to apply concepts to new situations, Mine the Gap helps students to become more confident and successful in mathematics.



## Mine the Gap for Mathematical Understanding, Grades 3-5: Common Holes and Misconceptions and What To Do About Them (Corwin Mathematics Series)

by John J. SanGiovanni

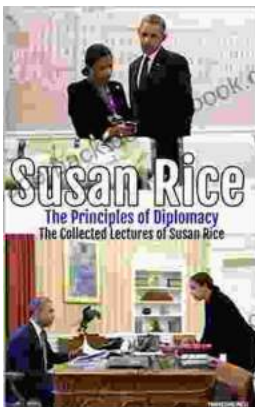
★★★★☆ 4.7 out of 5

Language : English

File size : 17806 KB

Screen Reader: Supported

Print length : 384 pages



## Susan Rice: The Principles of Diplomacy

Susan Rice is a leading expert on diplomacy. She has served as the U.S. Ambassador to the United Nations and as National Security Advisor. In these roles, she...



## **The Symphony Listener's Guide: Unlocking the Beauty of Orchestral Music**

Immerse yourself in the captivating world of symphonic music with our comprehensive Symphony Listener's Guide. Designed to illuminate the intricate layers of...