

6TH AND 7TH GRADE MATH: AREA AND VOLUME

In the bustling Math classroom, 6th and 7th grade students discover the beauty and intricacy of shapes, spaces, and dimensions. Yet, beyond the equations and formulas lies a deeper understanding—one that embraces a Christian worldview. 6th and 7th grade students are learning all about area and volume, and are also uncovering connections between mathematical concepts and the Creator.

God as the Ultimate Designer: As students delve into the study of area and volume, they are reminded that God is the ultimate Designer of the universe. From the symmetry of geometric shapes to the precision of mathematical formulas, they witness the fingerprints of God's creativity and wisdom woven throughout the details of their Geometry unit.

Ethical Decision-Making: Incorporating Christian values into the study of volume encourages students to explore ethical considerations related to mathematical concepts. They looked at food packaging and considered how the volume of the box compared to the volume of food inside the box (versus air in the box) could be misleading. A Christian worldview requires honesty in all interactions, as stated in Romans 12:17, “Do not repay anyone evil for evil. Be careful to do what is right in the eyes of everyone.” By examining this real-world scenario through the lens of their faith, students develop a deeper appreciation for the ethical dimensions of mathematics and the call to act with integrity.

Stewardship of Resources God's Creation: Central to the Christian worldview is the concept of stewardship—the responsibility to care for and cultivate God's creation. As students learn about area and volume, they recognize the importance of using mathematical knowledge to responsibly manage resources and spaces. Whether calculating the area of a garden for sustainable agriculture or designing a room that could be used for ministry, students are challenged to consider how their mathematical skills can be used to glorify God and serve others.

“I can use volume and area to help make houses for people experiencing homelessness.” - Lily Hall (6th Grade)

“Understanding volume and area allows hospitals to be made so that sick people can be helped.” - Claire Shohmelian (6th Grade)

“I can use areas to build a church that can glorify God.” - Ruby Crawford (6th Grade)

“People who understand area and volume can rebuild homes.” - Mary Kasabyan (6th Grade)

“Area can be used to find the space in a National Park and the cost of preserving it (more area, more cost).” -Marcus Cowley (6th Grade)

“We can help feed homeless people by calculating the volume of food in boxes.” - Liam Ozmolski (7th Grade)

“I can use area to find a room big enough to be a church.” -Dominic Sanchez (7th Grade)

“We can use areas of houses to give people homes because God says that everyone should be cared for.” - Lila Farley (7th Grade)

Amidst all the equations and calculations, students are encouraged to pause and reflect on the beauty of mathematical concepts like area and volume!

Integrating critical thinking questions related to both area and volume with Christian values can be a meaningful way to engage middle school students. Here are some questions that combine mathematical concepts with ethical considerations:

- Area: Stewardship of Resources
 - How can understanding the concept of area help us make responsible decisions about land use and conservation, aligning with Christian values of stewardship?
 - In what ways can we use our knowledge of area to promote sustainability and care for the environment, in line with Christian teachings about caring for God's creation?
- Volume: Making Ethical Choices
 - How can the concept of volume be used to make ethical decisions, such as determining appropriate serving sizes or portions to avoid waste and promote responsible consumption?
 - In what ways can an awareness of volume help us make ethical choices about the use of resources and possessions, aligning with Christian values of gratitude and moderation?

These questions are designed to encourage students to think critically about mathematical concepts while also considering the ethical and moral implications aligned with Christian values.

