

Unit 7: Prisms and Volume

Family Resources for Math 7 Unit 7: Prisms and Volume

Building a Positive Math Identity

Every child develops a **math identity**—their belief about who they are as a math learner. This identity is shaped by experiences at school, conversations at home, and the messages they hear about mathematics. A positive math identity helps students see themselves as capable learners who can grow, learn from mistakes, and improve through effort and persistence.

Here are some ways to support the development of a positive math identity:

What to do:	What it looks/sounds like:
 Use Encouraging and Supportive Language	Say: <i>"You worked really hard on that."</i>
 Value Thinking Over Speed	Encourage your child to take their time and explain how they arrived at their answer
 Normalize Challenges and Mistakes	Say: <i>"This is challenging, but that means your brain is growing."</i>
 Ask Questions That Build Confidence	Ask: <i>"What strategy did you use?"</i>
 Celebrate Progress, Big and Small	Keep examples of work to show how far they've come
 Model a Positive Attitude Toward Math	Say: <i>"Math takes practice, but we can figure it out together."</i>
 Make Math Feel Relevant and Connected	Talk about numbers, patterns, or problem-solving in daily activities

A Lasting Impact

Supporting a positive math identity is more than helping with homework—it's about helping children see themselves as capable learners. When parents and caregivers encourage curiosity, resilience, and persistence, they help build a foundation that allows students to approach math with confidence rather than fear.

Over time, this belief—*"I can learn and grow in math"*—can transform not only how students perform, but how they see themselves as thinkers and problem-solvers in school and beyond.



For additional information and resources to support at home, please visit the [Office of Mathematics website](#).

Big Ideas in Unit 7

Within this unit, students will learn these big ideas:

- Solid Geometry
- Cylinders and Cones
- Spheres

For more details about this unit, see [Unit 7 Family Resources Part 1](#) and [Unit 7 Family Resources Part 2](#).

Note: Print and digital resources for Math 7 Unit 7 are from Illustrative Mathematics Grade 7 Unit 7 and Illustrative Mathematics Grade 8 Unit 5 in alignment with revised Maryland Math standards.

Lesson Specific Resources

Use the links below to learn about the learning from each lesson.

Lesson Link
7.7.11 Slicing Solids
7.7.12 Volume of Right Prisms
7.7.13 Decomposing Bases for Area
7.7.14 Surface Area of Right Prisms
7.7.15 Distinguishing Volume and Surface Area
7.7.16 Applying Volume and Surface Area
7.7.17 Building Prisms
8.5.12 How Much Will Fit?
8.5.13 The Volume of a Cylinder
8.5.14 Finding Cylinder Dimensions
8.5.15 The Volume of a Cone
8.5.16 Finding Cone Dimensions
8.5.17 Scaling One Dimension
8.5.19 Estimating a Hemisphere
8.5.20 The Volume of a Sphere
8.5.21 Cylinders, Cones, and Spheres