

Family Resources for Math 8 Unit 10 Putting It All Together

Mathematical Modeling

Mathematical modeling is the process of using math tools to help describe the physical world. The purpose of using mathematical modeling in instruction is to help students see math as meaningful, useful, and connected to the real world. This might mean using a bar graph to show statistical data, approximating the shape of a coin as a cylinder, or using an equation to represent the path of an object.

With modeling, math becomes a tool for exploring situations, making decisions, and explaining thinking. Students make assumptions and approximations to simplify complicated situations, realizing they may need revision later. Students learn that it is okay to try different strategies, make mistakes, and adjust their thinking. They work with others, share ideas, and explain their reasoning, which deepens their understanding and strengthens their confidence. Over time, students begin to see themselves as capable problem solvers who can use math beyond the classroom and realize the role of mathematics in everyday life.



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

Big Ideas in Unit 10

Within this unit, students will learn these big ideas:

- Tessellations
- Predicting the Temperature

Lesson Specific Resources

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

Lesson Link
<u>9.1 Tessellations of the Plane</u>
<u>9.2 Regular Tessellations</u>
<u>9.3 Tessellating Polygons</u>
<u>9.4 What Influences Temperature?</u>
<u>9.5 Plotting the Temperature</u>
<u>9.6 Using and Interpreting a Mathematical Model</u>