cK12.org Flexbook Links to Support Curriculum 2.0 Geometry and Honors Geometry

This document outlines concepts in each Topic for the Unit. When corresponding resources are available in cK12.org, a hyperlink is provided for the Flexbook. The cK12.org Flexbooks provide a variety of examples, definitions, and extra practice problems related to some of the concepts in Curriculum 2.0 Geometry and Honors Geometry. The concepts will be developed in greater depth and with appropriate vocabulary in the classroom. The materials in the Flexbooks are intended to provide additional support to the classroom expectations. The vocabulary and methods in these examples may differ slightly from the classroom expectation; however, the overall intent is consistent with the content expectation.

Unit 3: Extending to Three Dimensions

Topic 1: Three-Dimensional Measurement

- What is area? (cK–12 Flexbook Unit 3 Topic 1 SLT 1)
- Informally prove and apply the formula for the circumference and area of a circle. (cK – 12 Flexbook Unit 3 Topic 1 SLT 2)
- Identify the solid created by rotating a two-dimensional figure about a line.(cK – 12 Flexbook Unit 3 Topic 1 SLT 3)
- Identify the shape of two-dimensional cross-sections (horizontal, vertical, and other) of a solid. (cK – 12 Flexbook Unit 3 Topic 1 SLTs 4 & 5)
- Explore cross-sections of three-dimensional figures to develop understandings of Cavalieri's Principle. (cK – 12 Flexbook Unit 3 Topic 1 SLT 6)
- Give an informal argument for, and apply the formula for the volume of a prism. (cK – 12 Flexbook Unit 3 Topic 1 SLT 7)
- Give an informal argument for, and apply the formula for the volume of a cylinder. (cK – 12 Flexbook Unit 3 Topic 1 SLT 8)
- Give an informal argument for, and apply the formula for the volume of a pyramid and cone. (cK – 12 Flexbook Unit 3 Topic 1 SLT 9)
- Give an informal argument for, and apply the formula for the volume of a sphere. (cK – 12 Flexbook Unit 3 Topic 1 SLT 10)
- Determine the effect on volume of doubling or tripling one or more dimension(s) of a solid. (cK-12 Flexbook Unit 3 Topic 1 SLT 11)
- Solve problems involving prisms, cylinders, pyramids, cones, and spheres by identifying and applying appropriate volume formulas. (cK-12 Flexbook Unit 3 Topic 1 SLTs 13 & 14)
- Model and estimate measures (circumference, area, perimeter, volume) of real-world objects, including composite figures, using comparable geometric shapes or three-dimensional objects.
- Create a visual representation of a design problem and solve given certain constraints using a geometric model (graph, equation, table, formula).
- Apply concepts of density to solve problems involving area and volume. (cK – 12 Flexbook Unit 3 Topic 1 SLTs 17, 18, & 19)