

Grade: 3 Subject: Mathematics	Unit 12: Three-Dimensional Figures
Big Idea/Rationale	<ul style="list-style-type: none"> • Students will continue to develop their knowledge of three-dimensional figures. Activities include building from nets, naming, and describing prisms, cones, pyramids, and cylinders. Students apply their knowledge of solid figures to designing a package and to sorting solid figures according to their own sorting rule. In the final lesson of the unit, students investigate relationship between a circle and a sphere.
Enduring Understanding (Mastery Objective)	<p>Students will understand that:</p> <ul style="list-style-type: none"> • Three dimensional, solid figures have length, width, and height. May can be described, classified, and analyzed by their faces, edges, and vertices. Many everyday objects closely approximate standard geometric solids. • A three dimensional figure is one in which you can see all sides represented at one time. A two dimensional figure is one that has limited side representation depicted within a drawing. • Solid figures can be described using their shape makeup.
Essential Questions (Instructional Objective)	<ul style="list-style-type: none"> • What is a solid, three dimensional figure? • What is the difference between a three dimensional figure and a two dimensional figure? • How can you describe parts of solid figures?
Content (Subject Matter)	<ul style="list-style-type: none"> • Identify and draw two-dimensional nets that will form cubes. (Lesson 1) • Identify and count faces, edges, and vertices of cubes. (Lesson 1) • Recognize that two-dimensional pictures can represent three-dimensional objects. (Lesson 2) • Make prisms, cylinders, and pyramids from nets. (Lesson 3) • Identify characteristics of prisms, cylinders, and pyramids. (Lesson 3) • Make a cone from a net. (Lesson 4) • Sort 3-D figures. (Lesson 4) • Design a package for a product. (Lesson 4) • Draw a circle and label a radius and diameter in it. (Lesson 5) • Find the circumference of a circle using string. (Lesson 5) • Recognize the relationship between a circle and sphere. (Lesson 5)
Skills/ Benchmarks (CCSS Standards)	<ul style="list-style-type: none"> • 3.MD.B.4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-whole number, halves, or quarters. • 3.MD.D.8: Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length and exhibiting rectangles with the same perimeter and different area or with same area and different perimeter.

	<ul style="list-style-type: none">• Mathematical Practices
Materials and Resources	<ul style="list-style-type: none">• Math Expressions, Student Journals, Manipulatives, Math themed literature, BrainPop, IXL Mathematics