Content Area: Math Grade Level: Fourth Grade

Reporting Measure: Geometry Reporting Measure: Two-Dimensional Figures

Level	Description
Above & Beyond (4.0)	The student will: • Invent a new category of two-dimensional figures and its attendant properties (for example, design a category of two-dimensional figures that have at least three congruent sides that meet at right angles, sketch several examples of figures that belong to the category, and investigate any unintended line or angle properties which result from the definition of the category).
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Proficient (3.0)	The student will: **TF1—Classify two-dimensional figures according to the properties of their lines and angles** (for example, identify congruent, parallel, and perpendicular sides, and acute, right, and obtuse angles in a given two-dimensional figure and, if possible, classify the figure). **TF2—Identify line symmetry and rotational symmetry in two-dimensional figures** (for example, when given a set of two-dimensional figures, determine whether each figure has line symmetry, rotational symmetry, or both; sketch any lines of symmetry; and identify the number of positions at which the figure displays rotational symmetry). **TF3—Describe rigid transformations of two-dimensional figures** (for example, when given a set of two-dimensional figures and their transformed images on a grid, match each figure to its image and describe the transformation or set of transformations the figure has undergone).
2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Getting There (2.0)	**TF1—**The student will recognize or recall specific vocabulary (for example, *acute*, *acute triangle*, *angle*, *equilateral triangle*, *isosceles triangle*, *obtuse*, *obtuse triangle*, *opposite angles*, *parallel*, *parallelogram*, *perpendicular*, *right angle*, *right triangle*, *scalene triangle*) and perform basic processes such as: • Identify parallel and perpendicular sides in two-dimensional figures. • Identify acute, right, and obtuse angles in two-dimensional figures. • List common types of quadrilaterals and their line and angle properties. For example, explain that all quadrilaterals have four sides, squares have two pairs of parallel sides that are all congruent and that meet at right angles, rectangles have two pairs of congruent parallel sides that meet at right angles, rhombuses have two pairs of parallel sides that are all congruent with congruent opposite angles, parallelograms have two pairs of congruent parallel sides with congruent opposite angles, and trapezoids have at least one pair of parallel sides. • List common types of triangles and their line and angle properties. For example, explain that all triangles have three sides, equilateral triangles have three congruent sides and three congruent angles, isosceles triangles have at least two congruent sides and two congruent angles, scalene triangles have three non-congruent sides and three non-congruent angles, right triangles have one right angle, acute triangles have three acute angles, and obtuse triangles have one obtuse angle. • Explain that a given two-dimensional figure may belong to more than one category of shape. For example, an isosceles triangle may also be a right triangle. **TF2—**The student will recognize or recall specific vocabulary (for example, *line of symmetry*, *rotational symmetry*) and perform basic processes such as: • Explain that a line of symmetry for a two-dimensional figure is a line across which the figure can be “folded” into matching parts. • Identify whether a given two-dimensional figure is line-symmetric. • Explain that a two-dimensional figure has rotational symmetry if it can be rotated less than one full revolution around a center point and still have the same appearance. • Explain that a two-dimensional figure may have several positions in which it displays rotational symmetry. For example, an equilateral triangle possesses the same appearance at three different positions when rotated around its center. • Identify whether a given two-dimensional figure has rotational symmetry. **TF3—**The student will recognize or recall specific vocabulary (for example, *flip*, *image*, *line of reflection*, *point of rotation*, *reflection*, *rotation*, *slide*, *translation*, *turn*) and perform basic processes such as: • Describe translations (slides), reflections (flips), and rotations (turns). For example, explain that a translation involves moving a figure a specified distance in a specified direction, a reflection involves flipping a figure across a line of reflection, and a rotation involves rotating a figure around a point of rotation. • Sketch a translation of a given two-dimensional figure. For example, when given a rectangle on a grid, sketch the image of the rectangle if it were to be shifted five units to the left. • Sketch a reflection of a given two-dimensional figure. For example, when given a trapezoid on a grid, sketch the image of the trapezoid if it were to be reflected across its base.

	• Sketch a rotation of a given two-dimensional figure. For example, when given a triangle on a grid, sketch the image of the triangle if it were to be rotated clockwise around its center by one-quarter of a full revolution. • Explain that translating, reflecting, or rotating a two-dimensional figure will not change its side lengths or angle measures.
1.5	Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content
Beginning (1.0)	With help, partial success at score 2.0 content and score 3.0 content