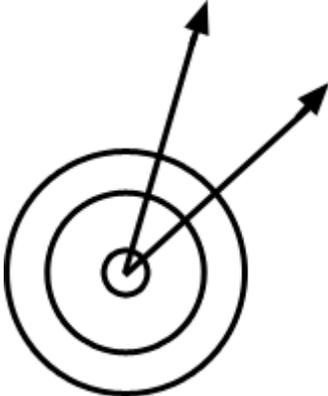


Seymour Public Schools Math Grade 4 Unit 8

<p>Grade: 4</p> <p>Unit 8- Geometric Shapes and Angle Measurement</p>	<p>Subject: Math</p> <ul style="list-style-type: none"> • Time Frame: 24 days • Domains: Measurement and Data, Geometry 	
<p>Standards</p>	<p>Content Standards: 4.MD.5,4.MD.5a, 4.MD.6, 4.MD.7 http://www.corestandards.org/wp-content/uploads/Math_Standards.pdf</p>	<p>Practice Standards: MP 1, 2, 3, 4, 5, 6, 7, 8</p>
<p>Enduring Understandings</p>	<ol style="list-style-type: none"> 1. Angles are measured in degrees and protractors are used to measure angles. 2. An angle can be divided into two or more smaller angles. The combined degree angle of the smaller angles equals the original angle. 3. Two dimensional figures can be identified by perpendicular or parallel lines and the size of their angles. 4. Some two-dimensional figures have one or more lines of symmetry. 	
<p>Essential Questions</p>	<ol style="list-style-type: none"> 1. How do you measure an angle? 2. How do you decompose an angle? 3. How are points, line, line segments alike and how are they different? 4. What are parallel lines? 5. What are perpendicular lines? 6. How are two-dimensional figures related? 7. How do I know when a figure is symmetrical? 8. What are the building blocks of geometry? 	

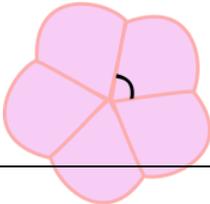
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Vocabulary	angle, degree, line segment, diagonal, right angle, straight angle, point, vertex, endpoint, ray, acute angle, obtuse angle, protractor,
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Priority and Supporting CCSS	Explanations and Examples*
<p>4.MD.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:</p> <p>a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.</p>	<p>4.MD.5. The diagram below will help students understand that an angle measurement is not related to an area since the area between the 2 rays is different for both circles yet the angle measure is the same.</p> 

Priority and Supporting CCSS	Explanations and Examples*
<p>4.MD.6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p>	<p>4.MD.6. Before students begin measuring angles with protractors, they need to have some experiences with benchmark angles. They transfer their understanding that a 360° rotation about a point makes a complete circle to recognize and sketch angles that measure approximately 90° and 180°. They extend this understanding and recognize and sketch angles that measure approximately 45° and 30°. They use appropriate terminology (acute, right, and obtuse) to describe angles and rays (perpendicular).</p>

*Source – Connecticut Core Standards for Mathematics as adapted from the Arizona Academic Content Standards

Priority and Supporting CCSS	Explanations and Examples*
<p>4.MD.7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.*</p> <p>* Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.</p>	<p>4.MD.7.Examples If the two rays are perpendicular, what is the value of m?</p> <ul style="list-style-type: none"> • Joey knows that when a clock's hands are exactly on 12 and 1, the angle formed by the clock's hands measures 30°. What is the measure of the angle formed when a clock's hands are exactly on the 12 and 4? • The five shapes in the diagram are the exact same size. Write an equation that will help you find the measure of the indicated angle. Find the angle measurement. 

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Resources

Math Expressions – Unit 8, Lessons 1-12
Thinkcentral.com
Soar to Success Math Intervention
Mega Math
Common Core Mathematics- Newmark Learning Book- Units-13-17
Xtramath.org
Learnzillion.com
Mobymax.com

Unit Assessments

Unit Test
Quick Quizzes
Formative Assessments
Performance Task
Assessment from other sources:

<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.MD.5>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.MD.6>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.MD.7>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.OA.5>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.G.1>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.G.2>
<https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.G.3>

Technology: Videos, Websites, Links

<http://elemmath.jordandistrict.org/teachers/4thgrade/>

<https://grade4commoncoremath.wikispaces.hcpss.org/4.MD.5>

<https://grade4commoncoremath.wikispaces.hcpss.org/4.MD.6>

<https://grade4commoncoremath.wikispaces.hcpss.org/4.MD.7>

<https://grade4commoncoremath.wikispaces.hcpss.org/4.G.1>

<https://grade4commoncoremath.wikispaces.hcpss.org/4.G.2>

<http://www.mathworksheetsland.com/>