

2008–2009

# Geometry

## Benchmark Calendar

Curriculum and  
Professional Development  
Division

# Nevada Process Standards for Mathematics

## Problem Solving

Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts in order to:

- ◆ Formulate their own problems.
- ◆ Find solutions to problems from everyday situations.
- ◆ Develop and apply strategies to solve a variety of problems.
- ◆ Integrate mathematical reasoning, communication, and connections.
- ◆ Generalize solutions and apply previous knowledge to new problem solving situations.
- ◆ Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem.
- ◆ Apply problem solving strategies until a solution is found or it is clear that no solution exists.
- ◆ Interpret and solve a variety of mathematical problems by paraphrasing.
- ◆ Identify necessary and extraneous information.
- ◆ Check the reasonableness of a solution.
- ◆ Apply technology as a tool in problem solving situations.
- ◆ Apply combinations of proven strategies and previous knowledge to solve non-routine problems.

## Mathematical Communication

Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing in order to:

- ◆ Translate information into mathematical language and symbols.
- ◆ Process information mathematically.
- ◆ Present results in written, oral, and visual formats.
- ◆ Discuss and exchange ideas about mathematics as a part of learning.
- ◆ Read fiction and non-fiction texts to learn about mathematics.
- ◆ Use mathematical notation to communicate and explain problems.
- ◆ Use a variety of techniques to solve mathematical problems.
- ◆ Evaluate written and oral presentations in mathematics.
- ◆ Model and explain mathematical relationships using oral, written, graphic, and algebraic methods.
- ◆ Communicate and evaluate mathematical thinking based on the use of definitions, properties, rules, and symbols in problem solving.
- ◆ Use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.

## Mathematical Reasoning

Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas in order to:

- ◆ Reinforce and extend their logical reasoning abilities.
- ◆ Reflect on, clarify, and justify their thinking.
- ◆ Ask questions to extend their thinking.
- ◆ Use patterns and relationships to analyze mathematical situations.
- ◆ Determine relevant, irrelevant, and/or sufficient information to solve problems.
- ◆ Recognize and apply deductive and inductive reasoning.
- ◆ Review and refine the assumptions and steps used to derive conclusions in mathematical arguments.
- ◆ Make and test conjectures about algebraic and geometric properties based on mathematical principles.
- ◆ Justify the validity of an argument.
- ◆ Construct a valid argument.

## Mathematical Connections

Students will develop their ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole in order to:

- ◆ Link new concepts to prior knowledge.
- ◆ Identify relationships between content strands.
- ◆ Integrate mathematics with other disciplines.
- ◆ Allow the flexibility to approach problems in a variety of ways within and beyond the field of mathematics.
- ◆ Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics.
- ◆ Explain the relationship between concepts and procedures.
- ◆ Use the connections among the mathematical topics to develop multiple approaches to problems.
- ◆ Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science.
- ◆ Identify, explain, and apply mathematics in everyday life.



# August/September 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
8/24	25	26	27	28	29	30
<b>Classes Begin</b>						
31	9/1	2	3	4	5	6
<b>Labor Day</b>						
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## Objectives

1.1	The student will illustrate the relationships among geometric terms.	4.12.6
1.2	The student will use proper notation to name and label undefined and defined terms.	4.12.6
1.3	The student will develop estimation skills using geometric tools.	
1.4	The student will analyze relationships among points, lines, and planes.	4.12.6
1.5	The student will classify an angle by its measure.	4.12.6
1.6	The student will classify pairs of angles.	4.12.6
1.7	The student will solve segment and angle problems using algebraic techniques.	2.12.2, 2.12.3, 2.12.4, 2.12.5, 4.12.5, 4.12.6
1.8	The student will use constructions to copy and bisect segments and angles.	3.12.3, 4.12.8
1.9	The student will find the distance between two points.	3.12.3, 4.12.5, 4.12.7, 4.12.8
1.10	The student will find the midpoint of a segment.	3.12.3, 4.12.5, 4.12.7, 4.12.8
2.1	The student will differentiate among definitions, postulates, corollaries, and theorems.	2.12.2, 4.12.9
2.2	The student will justify conjectures and solve problem using inductive reasoning.	2.12.1, 4.12.9
2.3	The student will differentiate between deductive and inductive reasoning.	2.12.1, 4.12.9
2.4	The student will distinguish between the hypothesis and conclusions of an implication.	2.12.1, 4.12.9
2.5	The student will write an implication as an if-then statement.	2.12.1, 4.12.9
2.6	The student will analyze conditional or bi-conditional statements.	2.12.1, 4.12.9
2.7	The student will write and analyze converse, inverse, and contrapositive of a statement.	2.12.1, 4.12.9
2.8	The student will find counterexamples to disprove mathematical statements.	2.12.1, 4.12.8, 4.12.9
2.9	The student will write algebraic proofs.	1.12.8, 4.12.9
2.10	The student will write formal deductive proof.	1.12.8, 4.12.9

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 1, 2

**Sections** 1.1–1.6, 2.1–2.6

### Holt: Geometry

**Chapters** 1, 2, 5, 12

**Sections** 1.1–1.4, 2.1–2.5, 5.6, 12.3

### Key Curriculum Press: Discovering Geometry

**Chapters** 1, 2, 9, 10, 12, 13

**Sections** 1.1–1.3, Using Algebra Skills 1, 2.1–2.6, 9.5, Using Algebra Skills 10, Project after 12.2, Exploration at end of Chapter 12, 13.1

## 1<sup>st</sup> Quarter Notes: August/September

- |                   |                      |
|-------------------|----------------------|
| ♦ August 25       | Classes Begin        |
| ♦ September 1     | Labor Day            |
| ♦ September 22–26 | Practice Proficiency |

### Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.

- |      |  |
|------|--|
| 12.1 | Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals. |
| 12.2 | The student will select a best strategy for solving a given problem.   |
| 12.3 | The student will select the best tool for solving a problem.   |
| 12.4 | The student will formulate generalizations and strategies for new problem-solving situations.  |
| 12.5 | The student will justify a strategy for solving a problem.   |
| 12.6 | The student will compare strategies for solving a problem.   |
| 12.7 | The student will validate a solution to a problem.   |
| 12.8 | The student will solve problems related to other disciplines using geometric models.   |
| 12.9 | The student will formulate real-life problems using geometric models.  |

# October 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	
					<b>Staff Development</b>	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
	<b>End of 1<sup>st</sup> Quarter</b>				<b>Nevada Day</b>	

## Objectives

2.10	The student will write a formal deductive proof.	1.12.8, 4.12.9
2.11	The student will write proofs related to segments and angles.	4.12.6, 4.12.9
3.1	The student will differentiate among parallel, perpendicular, and skew lines.	4.12.5, 4.12.6
3.2	The student will analyze relationships when two lines are cut by a transversal.	2.12.6, 4.12.6
3.3	The student will solve problems which involve parallel or perpendicular lines using algebraic techniques.	2.12.6, 4.12.5, 4.12.6
3.4	The student will write proofs relating to parallel and perpendicular lines.	4.12.6, 4.12.9
3.5	The student will construct parallel and perpendicular lines.	4.12.8
3.6	The student will compare strategies for determining the slope of a line.	4.12.5
3.7	The student will analyze slopes in a coordinate plane.	4.12.5
3.8	The student will formulate strategies to write the equations of a line given certain data.	2.12.4, 4.12.5

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 2, 3

**Sections** 2.5–2.6, 3.1–3.7

### Holt: Geometry

**Chapters** 2, 3, 4

**Sections** 2.4–2.5, 3.3, 3.4, 3.8, 4.7

### Key Curriculum Press: Discovering Geometry

**Chapters** 1, 2, 3, 13

**Sections** Using Algebra Skills 2, 3.1–3.5, Using Algebra Skills 3, 13.1, 13.2

## 1<sup>st</sup> Quarter Notes: October

◆ October 3	Staff Development Day
◆ October 13–November 7	Interim Assessments
◆ October 27	End of First Quarter
◆ October 31	Nevada Day

### **Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.**

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# November 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
		<b>Staff Development</b>				
9	10	11	12	13	14	15
	<b>Veterans' Day</b>	<b>Veterans' Day</b>				
16	17	18	19	20	21	22
23	24	25	26	27	28	29
				<b>Thanksgiving</b>	<b>Thanksgiving</b>	
30						

## Objectives

4.1	The student will classify triangles by sides and/or angles.	4.12.1
4.2	The student will solve problems applying the triangle sum theorems and exterior angle theorems..	1.12.8, 2.12.2, 2.12.3, 2.12.6, 4.12.1, 4.8.7
4.3	The student will analyze the relationships between congruent figures.	3.12.5, 4.12.1, 4.12.2
4.4	The student will justify congruence using corresponding parts of congruent figures.	3.12.5, 4.12.1
4.5	The student will solve problems related to congruent triangles using algebraic techniques.	2.12.2, 4.12.1, 4.12.2
4.6	The student will prove that two triangles are congruent.	4.12.9
4.7	The student will prove and use the properties of isosceles and /or equilateral triangles.	4.12.1, 4.12.7, 4.12.9
4.8	The student will classify triangles using coordinate geometry.	4.12.5, 4.12.7, 4.12.9

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 4  
**Sections** 4.1–4.7

### Holt: Geometry

**Chapters** 3, 4, 5  
**Sections** 3.5, 4.1–4.4, 5.7  
 Supplementation required for Objective 4.1.

### Key Curriculum Press: Discovering Geometry

**Chapters** 1, 4, 9  
**Sections** 1.4, 1.5, 4.1–4.8, 9.5

## 2<sup>nd</sup> Quarter Notes: November

- |                         |                       |
|-------------------------|-----------------------|
| ◆ October 13–November 7 | Interim Assessment    |
| ◆ November 4            | Staff Development Day |
| ◆ November 10–11        | Veterans' Day         |
| ◆ November 27–28        | Thanksgiving Break    |

### **Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.**

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# December 2008/January 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22 <b>Winter Break</b>	23 <b>Winter Break</b>	24 <b>Winter Break</b>	25 <b>Winter Break</b>	26 <b>Winter Break</b>	27
28	29 <b>Winter Break</b>	30 <b>Winter Break</b>	31 <b>Winter Break</b>	1/1 <b>Winter Break</b>	2 <b>Winter Break</b>	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17

**End of 2<sup>nd</sup> Quarter**

## Objectives

4.9	The student will solve problems applying the properties of triangle inequalities.	4.12.7
4.10	The student will construct special segments of a triangle.	4.12.8
4.11	The student will apply special segment properties to solve problems.	4.12.1, 4.12.7
4.12	The student will explore the points of concurrency and their special relationships.	4.12.1, 4.12.7
5.1	The student will differentiate among polygons by their attributes.	4.12.1
5.2	The student will classify polygons by their special properties.	4.12.1
5.3	The student will find the sum of the measures of the interior angles of a polygon.	3.12.3, 4.12.1, 4.12.6
5.4	The student will solve problems involving properties of special quadrilaterals.	4.12.1, 4.12.6
5.5	The student will write proofs involving special quadrilaterals.	4.12.6, 4.12.9
5.6	The student will solve problems involving properties of polygons.	4.12.6
5.7	The student will perform constructions involving polygons.	4.12.8
5.8	The student will find the measure of interior, exterior, and central angles of a given regular polygon.	3.12.3, 4.12.6
5.9	The student will utilize the distance, slope, and midpoint formulas to classify a given quadrilateral.	2.12.2, 2.12.3, 4.12.5

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 5, 6, 11

**Sections** 5.1–5.6, 6.1–6.6, 11.1

Supplementation required for Objective 5.7

### Holt: Geometry

**Chapters** 1, 3, 4, 5

**Sections** 1.5, 3.1–3.2, 3.6–3.7, 4.5–4.8, 5.7

### Key Curriculum Press: Discovering Geometry

**Chapters** 1, 3, 5

**Sections** 1.4, 3.7–3.8, 5.1–5.7

## 2<sup>nd</sup> Quarter Notes: December/January

◆ December 22–January 2	Winter Break
◆ January 5	Classes Resume
◆ January 12–16	Semester Exams
◆ January 16	End of Second Quarter

### Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# January/February 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1/18	19	20	21	22	23	24
	<b>Martin Luther King, Jr. Day</b>				<b>Staff Development</b>	
25	26	27	28	29	30	31
2/1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
	<b>Presidents' Day</b>					
22	23	24	25	26	27	28

## Objectives

6.1	The student will differentiate between similar and congruent.	4.12.2
6.2	The student will determine scale ratios and write appropriate proportions.	3.12.5 , 4.12.2
6.3	The student will explore the properties of equivalent proportions.	3.12.5
6.4	The student will solve proportion problems using algebraic techniques.	3.12.5
6.5	The student will formulate and solve real world problems using similar triangles.	3.12.5, 4.12.1, 4.12.2
6.6	The student will prove that two triangles are similar.	4.12.2, 4.12.8, 4.12.9
6.7	The student will write proofs using the properties of similar triangles.	4.12.2, 4.12.9
7.1	The student will explore right triangles and their relationships.	4.12.2
7.2	The student will explore geometric mean relationships within a right triangle.	4.12.2
7.3	The student will solve problems using the Pythagorean Theorem.	1.12.7, 3.12.5, 4.12.7
7.4	The student will solve problems using the converse of the Pythagorean theorem and related theorems for obtuse or acute triangles.	1.12.7, 4.12.2, 4.12.7

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 4, 8, 9

**Sections** 4.2, 8.1–8.6, 9.1–9.3

### Holt: Geometry

**Chapters** 5, 8

**Sections** 5.4–5.5, 8.1–8.5

Supplementation required for Objective 7.2.

### Key Curriculum Press: Discovering Geometry

**Chapters** 9, 11

**Sections** 9.1–9.3, 11.1–11.4, Exploration after 11.2

## 3<sup>rd</sup> Quarter Notes: January/February

♦ January 19	Martin Luther King Day
♦ January 23	Staff Development Day
♦ February 16	Presidents' Day
♦ February 17–20	Practice Proficiency

### **Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.**

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# March 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
<b>Staff Development</b>						
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
<b>End of 3<sup>rd</sup> Quarter</b>						
29	30	31				

## Objectives

7.5	The student will solve problems utilizing the ratios of the sides of special right triangles.	2.12.3, 3.12.5, 4.12.2, 4.12.7
7.6	The student will define and apply basic trigonometric ratios of sine, cosine, and tangent.	3.12.5, 4.12.1, 4.12.2
7.7	The student will solve problems using trigonometric ratios.	3.12.5, 4.12.1, 4.12.7
8.1	The student will formulate strategies for finding the perimeter or area of various geometric figures.	2.12.3, 3.12.5, 4.12.2, 4.12.6
8.2	The student will solve problems using perimeter or areas of geometric figures.	2.12.2, 3.12.5, 4.12.2, 4.12.6
8.3	The student will solve real world problems of perimeter and area.	2.12.6, 3.12.5, 4.12.6

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 1, 6, 9, 11

**Sections** 1.7, 6.7, 9.4–9.6, 11.2–11.5

### Holt: Geometry

**Chapters** 5, 10

**Sections** 5.1–5.3, 5.5, 10.1–10.2

### Key Curriculum Press: Discovering Geometry

**Chapters** 6, 8, 9, 12

**Sections** 6.5, 8.1–8.5, 9.3, 12.1–12.2

## 3<sup>rd</sup> Quarter Notes: March

- |                    |                       |
|--------------------|-----------------------|
| ◆ March 2          | Staff Development Day |
| ◆ March 16–20      | Proficiency Testing   |
| ◆ March 16–April 3 | Interim Assessment    |
| ◆ March 25         | End of Third Quarter  |

### **Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.**

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# April 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
	<b>Spring Break</b>	<b>Spring Break</b>	<b>Spring Break</b>	<b>Spring Break</b>	<b>Spring Break</b>	
12	13	14	15	16	17	18
18	20	21	22	23	24	25
26	27	28	29	30		

## Objectives

9.1	The student will compare attributes of various geometric solids.	2.12.2, 3.12.5, 4.12.2, 4.12.6, 4.12.8
9.2	The student will solve surface area and volume problems of various geometric solids.	2.12.2, 3.12.5, 4.12.2, 4.12.6, 4.12.8
9.3	The student will solve real world problems of surface area and volume.	2.12.6, 3.12.5, 4.12.6
9.4	The student will solve area and volume problems of similar two and three dimensional figures.	1.12.7, 3.12.5, 4.12.2
10.1	The student will differentiate among the terms relating to a circle.	4.12.1
10.2	The student will solve problems involving angles, arcs, or sectors of circles.	2.12.2, 4.12.1
10.3	The student will solve problems involving arcs, chords, and radii of a circle.	2.12.2, 4.12.1
10.4	The student will explore relationships among circles and external lines or rays.	2.12.2, 4.12.1
10.5	The student will solve problems involving properties of circles using algebraic techniques.	3.12.5, 4.12.1
10.6	The student will solve problems involving secant segments and tangent segments for a circle.	2.12.2, 4.12.1

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 10, 12

**Sections** 10.1–10.5, 12.1–12.7

### Holt: Geometry

**Chapters** 6, 7, 8, 9

**Sections** 6.2–6.3, 7.1–7.6, 8.6, 9.1–9.5

### Key Curriculum Press: Discovering Geometry

**Chapters** 6, 8, 10, 11

**Sections** 6.1–6.3, 8.7, 10.1–10.4, 10.6–10.7, 11.5–11.6, Exploration on pages 355–358

## 4<sup>th</sup> Quarter Notes: April

- ◆ March 16–April 3 Interim Assessment
- ◆ April 6–10 Spring Break

### Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.

# May/June 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
14	25	26	27	28	29	30
	<b>Memorial Day</b>					
31	6/1	2	3	4	5	6
					<b>End of 4<sup>th</sup> Quarter</b>	
					<b>Students' Last Day</b>	<b>Teachers' Last Day</b>

## Objectives

10.7	The student will perform constructions involving special relationships within circles.	3.12.3, 4.12.8
10.8	The student will graph a circle and determine its equation.	2.12.6, 3.12.3, 4.12.8
11.1	The student will distinguish among the basic mapping functions: rotation, reflection, translation, and dilation.	4.8.3
11.2	The student will explore scale factor and dilations.	4.8.3
11.3	The student will explore relationships among transformations.	4.8.3
11.4	The student will design examples of each type of symmetry.	4.8.3
11.5	The student will sketch the results after two or more transformations are applied to a figure.	4.8.3
11.6	The student will explore tessellations of a plane using polygons .	4.12.1

## Textbook Correlation

### McDougal Littell: Geometry

**Chapters** 7, 8, 10

**Sections** 7.1–7.5, 8.7, 10.6, p.452

Supplementation required for Objective 10.7.

### Holt: Geometry

**Chapters** 1, 3, 4, 9, 10

**Sections** 1.6, 1.7, 3.1, 4.6, 4.8, 9.6, 10.7

Supplementation required for Objectives 10.7 and 11.5.

### Key Curriculum Press: Discovering Geometry

**Chapters** 6, 7, 9, 11

**Sections** 6.1, 7.1–7.5, 9.5 (equation of a circle), 11.1

## 4<sup>th</sup> Quarter Notes: May/June

◆ May 25	Memorial Day
◆ June 1–4	Semester Exams
◆ June 4	End of Fourth Quarter
◆ June 5	Teachers' Last Day

### **Embed Process Standards on page 2 and objectives 12.1–12.9 below throughout instruction.**

- 12.1 Throughout the course it is expected to incorporate a review of fundamental algebra processes including solving quadratic equations, systems of equations, and operations with radicals.
- 12.2 The student will select a best strategy for solving a given problem.
- 12.3 The student will select the best tool for solving a problem.
- 12.4 The student will formulate generalizations and strategies for new problem-solving situations.
- 12.5 The student will justify a strategy for solving a problem.
- 12.6 The student will compare strategies for solving a problem.
- 12.7 The student will validate a solution to a problem.
- 12.8 The student will solve problems related to other disciplines using geometric models.
- 12.9 The student will formulate real-life problems using geometric models.