

Applied Geometry

Applied Geometry should be taught in coordination with the activities of the *Louisiana Comprehensive Curriculum* Geometry course. The correlation below indicates which lessons, math labs, and problems found in the applied algebra textbook, *Geometry - Mathematics in Context* (CORD Communications), correlate with each of the *Comprehensive Curriculum* activities. For an activity in which there is no corresponding content in the applied algebra text, the *Comprehensive Curriculum* activity should be used to ensure that all GLEs are addressed.

Geometry Comprehensive Curriculum	Correlations Found in <i>Geometry Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 1: Geometric Patterns and Reasoning			
Activity 1: Inductive Reasoning (GLE: <u>17</u>)	2.1, pgs 68-73	pg 122: Act. 3	
Activity 2: Using Inductive Reasoning in Number and Picture Patterns (GLE: <u>17</u>)	2.1, pgs 68-73		
Activity 3: Recognizing Linear Relationships in Table Formats (GLEs: <u>5</u> , <u>20</u> , 22, 26, 27)	2.1, pgs 68-73 3.1, pgs 140-142 7.4, pgs 413-420		pg 444: 1-3 pg 445: 11-14 pgs 447-448: 22-34 pg 453: 66 pg 449: 43-47
Activity 4: Use a Formula to Find the n^{th} Term in a Pattern (GLEs: 20, <u>26</u> , 27)	none		
Activity 5: Figurate Numbers (GLEs: 5, <u>20</u> , 22, <u>26</u> , <u>27</u>)	none		
Activity 6: Applying Patterns and Counting to Geometric Concepts (GLEs: <u>5</u> , <u>20</u> , 22, <u>26</u> , 27)	2.1, pgs 68-73 5.2, pgs 262-263	pgs 291-292: Act 1	pg 63: 88-90 pg 299: 14-22
Activity 7: Round-Robin Tournaments (GLEs: 20, 22, <u>24</u> , <u>25</u> , 26, 27)	none		
Activity 8: Permutations and Combinations (GLEs: <u>24</u> , 25)	none		
Other			

Geometry Comprehensive Curriculum	Correlations Found in <i>Geometry Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 2: Reasoning and Proof			
Activity 1: Deductive Reasoning Skills (GLE: <u>17</u>)	2.2, pgs 74-79 2.6, pg 100		pgs 128-130: 32-37
Activity 2: Comparing Reasoning: Inductive vs. Deductive (GLE: <u>17</u>)	2.2, pg 77		pg 194: 27, 28
Activity 3: Distinguishing Between Inductive and Deductive Reasoning (GLE: <u>17</u>)	2.2, pg 77		pgs 123-124: 1-7
Activity 4: Finding Segment and Angle Measures Analytically (GLEs: <u>10</u>)	1.3, pgs 19-25 2.6, pgs 96-99	pgs 46-48: Act 2 pgs 120-121: Act 2	pg 58: 48-51 pg 126: 16-17 pgs 130-131: 42-44 pg 194: 29-31
Activity 5: Conditional Statements (GLE: <u>23</u>)	2.2, pgs 74-79 2.3, pgs 80-84	pgs 115-116: Act 1, Case One	pgs 124-126: 8-15 pg 127: 21-23 pg 132: 47-51
Activity 6: Laws of Syllogism and Detachment (GLE: <u>23</u>)	2.4, pgs 85-88 2.5, pgs 89-94	Pgs 117-119: Act 1, Cases Two, Three, Four	pg 135: 61-66
Activity 7: Algebraic Proofs (GLE: <u>19</u>)	2.6, pgs 95-102		
Activity 8: Proofs (GLE: <u>19</u>)	2.5, pgs 89-94 2.6, pgs 95-102 2.7, pgs 103-109 2.8, pgs 110-114		pgs 134-135: 56-60
Activity 9: Fun with Angles (GLEs: <u>11, 19, 23</u>)	3.2, pgs 149-154	pgs 44-45: Act 1	pgs 191-193: 10-13
Other – covers concepts in multiple activities			pgs 127-128: 18-20, 24-31

Geometry Comprehensive Curriculum	Correlations Found in <i>Geometry Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 3: Parallel and Perpendicular Relationships			
Activity 1: Slopes of Perpendicular Lines (GLEs: <u>10</u> , <u>11</u> , <u>22</u>)	7.3, pgs 405-412 7.4, pgs 413-420	pgs 439-441: Act 2	pgs 190-191: 5-9
Activity 2: Parallel and Perpendicular Lines (GLE: <u>6</u>)	3.1, pgs 140-147 7.4, pgs 413-420		pg 298: 7-10 pg 444: 38-40
Activity 3: Proving Lines are Parallel (GLEs: <u>10</u> , <u>11</u> , <u>19</u>)	1.5, pgs 30-35 3.1, pgs 140-147 3.2, pgs 148-154 3.3, pgs 155-161	pgs 184-186: Act 1	pg 56: 34-36 pg 190: 4 pgs 196-197: 38-49 pg 198: 54-61 pg 453: 74
Activity 4: Distance in the Plane (GLEs: <u>1</u> , <u>12</u> , <u>16</u>)	7.1, pgs 390-396		pg 446: 18-21 pg 449: 41 pgs 450-451: 48-53 pgs 452-453: 63- 65
Activity 5: Parallel Lines and Distance (GLEs: <u>10</u> , <u>16</u>)	none		
Activity 6: Ladders and Saws (GLEs: <u>10</u> , <u>11</u>)	none		
Activity 7: Parallel Line Facts (GLEs: <u>10</u> , <u>11</u> , <u>19</u>)	3.4, pgs 162-170	pgs 186-187: Act 2	pgs 195-196: 35-37
Other - covers concepts in multiple activities		pgs 438-439: Act 1	pg 190: 1-3

Geometry Comprehensive Curriculum	Correlations Found in <i>Geometry Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 4: Triangles and Quadrilaterals			
Activity 1: Analyzing Isosceles Triangles (GLEs: 1, <u>10</u> , 16,)	3.4, pgs 162-163 4.4, pgs 224-230		pg 244: 8
Activity 2: Congruent Triangles (Using Technology) (GLE: <u>10</u>)	4.1, pgs 205-210		
Activity 3: Corresponding Parts (CPCTC) (GLEs: 10, <u>18</u>)	4.1, pgs 205-210		pgs 244-245: 11-13
Activity 4: More about Congruent Triangles (Using Technology) (GLEs: <u>10</u> , 19)	4.1, pgs 205-210 4.2, pgs 211-217		
Activity 5: Are They Congruent? (GLEs: <u>10</u>)	4.2, pgs 211-217		
Activity 6: Proving Triangles Congruent (GLEs: 17, <u>19</u> , 23)	4.1, pgs 205-210 4.2, pgs 211-217 4.3, pgs 218-223		pgs 242-243: 1-3 pg 244: 6, 7, 9 pg 245: 14, 15 pg 246: 19 pg 247: 23-26
Activity 7: Altitudes, Angle Bisectors, Medians, and Perpendicular Bisectors of a Triangle (GLE: <u>10</u>)	4.5, pgs 231-236	pgs 237-240: Act 1, Act 2, Act 3	
Activity 8: Altitudes, Medians, and Perpendicular Bisectors on the Coordinate Plane (GLEs: <u>6</u> , 9)	4.5, pgs 231-236		
Activity 9: More on Angle Bisectors, Medians, and Perpendicular Bisectors of a Triangle (GLEs: <u>10</u> , 19)	4.5, pgs 231-236		pg 245: 16, 17
Activity 10: Proving Right Triangles Congruent (GLEs: 10, <u>19</u> , 23)	4.4, pgs 224-230		pg 244: 4,5 pg 246: 20-22 pg 249-250: 33-41
Activity 11: Inequalities for Sides and Angles in a Triangle (GLEs: 1, <u>10</u>)	3.5, pgs 171-178		
Activity 12: Applying Inequalities for Sides and Angles in a Triangle (GLEs: 1, <u>10</u> , 16)	3.5, pgs 171-178	pgs 188-189: Act 3	pg 192: 14 pg 193: 21-25 pg 195: 32-34
Activity 13: The Triangle Inequality (GLE: <u>10</u>)	3.6, pgs 179-183		
Activity 14: Similar or Not? (GLEs: <u>10</u> , 17, 19, 23)	6.2, pgs 316-322 6.3, pgs 323-330		
Activity 15: Conjectures about Quadrilaterals (GLE: <u>10</u>)	5.3, pgs 268-272 5.4, pgs 273-278 5.5, pgs 279-284 5.6, pgs 285-290	pgs 293-294: Act 2 pgs 294-296: Act 3	pg 301: 26, 27 pg 304: 48 pg 305: 52

Activity 16: Quadrilaterals on the Coordinate Plane (GLEs: 1, <u>6</u> , 9, <u>16</u>)	7.5, pgs 421-428		pg 448: 37 pg 452: 63, 64, 67 pg 506: 21-24
Activity 17: The Quadrilateral Family (GLEs: <u>10</u> , 23)	5.3, pgs 268-272 5.4, pgs 273-278 5.5, pgs 279-284 5.6, pgs 285-290		
Activity 18: Median of a Trapezoid (GLEs <u>10</u> , 16)	5.6, pgs 285-290		pg 303: 39-43 pg 305: 50-52
Other			

Geometry Comprehensive Curriculum	Correlations Found in Geometry Mathematics in Context (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 5: Similarity and Trigonometry			
Activity 1: Striking Similarity (GLEs: <u>4</u> , <u>10</u>)	6.2, pgs 316-322		
Activity 2: Similarity and Ratios (GLE: <u>4</u>)	8.6, pgs 487-491 10.8, pgs 632-636		pg 510: 48-50
Activity 3: Exploring Similarity Using Scale Drawings (GLEs: <u>2</u> , <u>4</u> , <u>10</u>)	6.1, pgs 310-315 10.3, pgs 596-599 10.4, pgs 605-606		pg 54: 23-25 pg 57: 39-42 pg 655: 42
Activity 4: Spotlight on Similarity (GLEs: <u>2</u> , <u>4</u> , <u>19</u> , <u>23</u>)	6.3, pgs 323-330	pgs 371-372: Act 3	pgs 378-379: 38-42
Activity 5: Applying Similar Figures (GLEs: <u>2</u> , <u>4</u> , <u>18</u>)	6.4, pgs 331-334	pgs 367-369: Act 1	pgs 373-374: 1-11 pg 377: 29-32 pg 380-381: 48-51 pg 384: 67-69
Activity 6: Parts of Similar Triangles (GLEs: <u>2</u> , <u>4</u> , <u>10</u>)	6.3, pgs 323-330		
Activity 7: Midsegment Theorem for Triangles (GLEs: <u>4</u> , <u>10</u> , <u>18</u> , <u>19</u>)	5.6, pgs 287-288		pg 302: 33, 34
Activity 8: Math Masters (GLEs: <u>4</u> , <u>10</u>)	Review of 5.6, 6.1 – 6.4, 8.6, 10.3, 10.4, 10.8		
Activity 9: Pythagorean Theorem (GLEs: <u>12</u> , <u>19</u>)	6.6, pgs 341-347	pgs 369-370: Act 2 a-f	pg 376: 19-21 pg 378: 33-37 pg 385 70-72
Activity 10: Application of the Converse of the Pythagorean Theorem (GLEs: <u>10</u> , <u>12</u>)	6.6, pgs 341-347	pgs 371: Act 2 L	
Activity 12: Discovering Trigonometry (Using Technology) (GLEs: <u>3</u> , <u>8</u> , <u>12</u>)	6.8, pgs 354-360 6.9, pgs 361-366		
Activity 13: Special Right Triangles (GLEs: <u>1</u> , <u>3</u> , <u>10</u> , <u>12</u> , <u>18</u>)	6.7, pgs 348-353 6.9, pgs 361-366	pgs 370-371: Act 2 g-k, m	pg 376: 22-28 pg 385: 75-78
Activity 14: Trigonometry (GLEs: <u>2</u> , <u>3</u> , <u>8</u> , <u>12</u> , <u>18</u>)	6.8, pgs 354-360 6.9, pgs 361-366	pgs 718-720: Act 3	pg 375: 16-18 pg 380: 43-47
Other			

Geometry Comprehensive Curriculum	Correlations Found in Geometry Mathematics in Context (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 6: Area, Polyhedra, Surface Area, and Volume			
Activity 1: Why Does That Formula Work? (GLE: <u>10</u>)	8.1, pgs 458-464 8.2, pgs 465-470 8.3, pgs 471-476	pgs 497-499: Act 1	pg 504: 1-5 pg 506: 19, 20 pgs 507-508: 28-30 pg 509: 36-39 pgs 510-511: 51, 52
Activity 2: Area of Regular Polygons (GLEs: <u>7, 9, 10, 12, 18</u>)	8.4, pgs 477-480		pg 505: 6-11 pg 513: 69, 71-74
Activity 3: Experiment with Volume (GLEs: <u>9, 10</u>)	10.4, pgs 605-611		
Activity 4: Cube Coloring Problem (GLEs: <u>9, 10</u>)	10.3, pgs 596-604 10.4, pgs 605-611		pg 653: 27-29 pg 655: 37-42
Activity 5: Cylinder in 3-D (GLEs: <u>9, 10</u>)	10.3, pgs 596-604 10.4, pgs 605-611		pgs 659-660: 68-74
Activity 6: Building a Pyramid (GLEs: <u>9, 10, 12</u>)	10.5, pgs 612-618		
Activity 7: Surface Area (GLE: <u>7</u>)	10.5, pgs 612-618		
Activity 8: Volumes of Pyramids and Cones (GLE: <u>7</u>)	10.4, pgs 605-611 10.5, pgs 612-618 10.6, pgs 619-625 10.7, pgs 626-631	pgs 647-649: Act 3	pg 650-651: 4-6 pgs 651-652: 11-14 pg 653: 25, 26 pg 659: 68
Activity 9: More with Volume and Surface Area (GLE: <u>7</u>)	10.3, pgs 596-604 10.4, pgs 605-611 10.5, pgs 612-618		pgs 652-653: 18-23 pg 654: 30-36 pg 655-656: 43-51 pg 658-659: 57-67 pg 660: 75-79
Activity 10: Volume of Irregular Objects (GLE: <u>7</u>)			
Activity 11: Geometric Probability (GLE <u>21</u>)	8.7, pgs 492-496		pgs 509-510: 40-43
Other Constructing a Doll House (Orthographic Projections) Isometric and Perspective Drawings	10.1, pgs 582-588 10.2, pgs 589-595	pgs 647-649: Act 1 pgs 647-649: Act 2	pg 650: 1-3 pg 657: 52-54

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	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 7: Circles and Spheres			
Activity 1: Vocabulary Self-Awareness (GLE: <u>13</u>)	none		
Activity 2: Derivation of the Area of a Circle Formula (GLEs: <u>13</u> , <u>17</u>)	8.5, pgs 481-486		pg 506: 18 pgs 508-509: 31-35 pgs 511-512: 53-62 pg 513: 69,70
Activity 3: Throw That Dart! (GLEs: <u>13</u> , <u>21</u>)	8.5, pgs 481-486 8.7, pgs 492-496		
Activity 4: Central Angles and Arcs (GLE: <u>13</u>)	8.5, pgs 481-486 9.3, pgs 533-541	pgs 567-568: Act 3 a-e	pg 510: 44-47 pg 571: 6 pg 572: 15,16 pg 576: 50,51
Activity 5: Concentric Circles (GLE: <u>13</u>)	9.1, pgs 521 9.3, pgs 533-541		
Activity 6: Graph It! (GLEs: <u>13</u> , <u>22</u>)	9.3, pgs 533-535		pgs 57-58: 43-47
Activity 7: Geometric Probability (GLE: <u>21</u>)	8.7, pgs 492-496		pg 573-574: 24-27
Activity 8: Arcs and Chords (GLE: <u>13</u>)	9.3, pgs 533-541		pg 577: 52-54
Activity 9: Finding the Center (GLE: <u>13</u>)	none	pgs 565-567: Act 2	pgs 52-53: 14-16 pgs 571-572: 6-10
Activity 10: Inscribed angles (GLEs: <u>13</u> , <u>17</u> , <u>19</u>)	9.4, pgs 542-549	pg 568: Act 3 f	pg 572: 17-19 pg 577: 55-59
Activity 11: Tangents and Secants (GLE: <u>13</u>)	9.2, pgs 525-532 9.5, pgs 550-556	pgs 568-570: Act 3 g-p	pg 576: 46-49
Activity 12: Intersecting Chords and Secants (GLE: <u>13</u>)	none		
Activity 13: Surface Area of a Sphere (GLE: <u>7</u>)	10.7, pgs 626-631		
Activity 14: Surface Area and Volume of Spheres (GLEs: <u>7</u> , <u>10</u>)	10.7, pgs 626-631		pg 651: 7-10 pg 657: 55, 56
Other Measuring Distances with a Cylinder Approximating π Equations of Circles	8.5, pgs 481-486 9.1, pgs 518-524	pgs 499-501: Act 2 pgs 501-503: Act 3 pgs 564-565: Act 1	pg 574: 28-34

Geometry Comprehensive Curriculum	Correlations Found in <i>Geometry Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 8: Transformations			
Activity 1: Understanding Congruence, Similarity, and Symmetry Using Transformations and Interactive Figures: Visualizing Transformations (Using Technology) (GLE: <u>14</u>)	11.1, pgs 666-673 11.2, pgs 674-680 11.3, pgs 681-687 11.4, pgs 688-693 11.6, pgs 698-704		pgs 721-722: 5-11 pg 724: 16-18 pg 725: 23-26
Activity 2: A Basic Look at Transformations (GLE: <u>14</u>)	11.1, pgs 666-673 11.2, pgs 674-680 11.3, pgs 681-687 11.4, pgs 688-693 11.6, pgs 698-704		
Activity 3: Understanding Reflections (GLE: <u>14</u>)	11.1, pgs 666-673 11.6, pgs 698-700		pg 721: 3, 4 pg 727: 34-37
Activity 4: Understanding Rotations (GLE: <u>14</u>)	11.3, pgs 681-688 11.6, pgs 701-703		pg 726: 38-40
Activity 5: Slide It! (GLE: <u>14</u>)	11.2, pgs 674-680 11.6, pgs 700-701		pg 721: 1, 2
Activity 6: Magnify It! (GLE: <u>15</u>)	11.7, pgs 705-711	pgs 716-718: Act 2	pgs 724-725: 19-22 pg 726: 27-29
Activity 7: Make a Conjecture and Prove It! (GLEs: <u>14</u> , <u>15</u> , 17, 19)	11.1, pgs 666-673 11.2, pgs 674-680 11.3, pgs 681-687 11.4, pgs 688-693 11.6, pgs 698-704 11.7, pgs 705-711	pgs 712-715: Act 1	
Other			