

Applied Algebra I

Applied Algebra I should be taught in coordination with the activities of the *Louisiana Comprehensive Curriculum* Algebra I course. The correlation below indicates which lessons, math labs, and problems found in the applied algebra textbook, *Algebra I - 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.

Algebra I Comprehensive Curriculum	Correlations Found in <i>Algebra I Mathematics in Context</i> (CORD Communications)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 1: Understanding Numeric Values, Variability, and Change			
Activity 1: The Numbers (GLEs: <u>1</u> , 4, 5)	1.1, pgs 4-8 2.5, pgs 103-105		pg 106: 16
Activity 2: Using a Flow Chart to Classify Real Numbers (GLEs: <u>1</u> , <u>34</u>)	none		
Activity 3: Operations on Rational Numbers (GLE <u>5</u>)	1.4, pgs 18-25 1.5, pgs 26-31	pgs 54-55: Act. 1	pg 22 – Subtracting Real Numbers (airplane problem) pg 59: 1, 2, 8-19 pgs 61-63:25-39 pgs 64-68:45-64 pgs 69-73:70-88, 90-97
Activity 4: Comparing Radicals (GLE <u>6</u>)	12.3, pgs 694-697 12.4, pgs 699-704	pgs 725-727: Act. 2 and 3	pg 707: 14, 15
Activity 5: Basic Operations on Radicals (GLEs: <u>6</u> , <u>8</u>)	12.6, pgs 717-718 pg 721: 1-8		
Activity 6: Scientific Notation (GLEs: <u>2</u> , <u>3</u>)	1.7, pgs 37-43 1.8, pgs 44-48	pgs 55-56, Act. 2	pg 60: 20-24 pgs 68-69: 65-69 pg 73: 89 pgs 74-75:98-112
Activity 7: Independent vs. Dependent Variable (GLE: <u>10</u>)	4.4, pg 225		
Activity 8: Variation (GLEs: <u>7</u> , 9, 10, 15, 28, 29)	5.3, pgs 291-295		pg 328: 34, 35 pg 330: 43-45
Activity 9: Exponential Growth (GLEs: <u>2</u> , 9, 10, 15, <u>29</u>)	5.6, pgs 312-319		pg 323-325: 4-11, 13-16
Activity 10: Pay Day! (GLEs: 9, 10, 15, <u>29</u>)	none		

Activity 11: Linear or Non-linear? (GLEs: 10, 15, <u>29</u>)		pg 320: Act. 1 pg 322: Act. 3	pg 323: 1-3 pg 325: 17 pg 327: 27 pg 328: 31 pg 329: 38 pg 332: 53-55 pg 333: 57
Activity 12: Using Technology (GLEs: 10, 15, <u>29</u>)			pg 325: 19-22 pg 330: 41 pg 331-332: 48-51 pgs 334-335: 66-71
Activity 13: Understanding Data (GLEs: 5, 10, <u>28</u> , 29)	none		

Unit 2: Writing and Solving Proportions and Linear Equations			
Activity 1: Think of a Number (GLEs: 5, <u>8</u> , 9)	none		
Activity 2: Order of Operations and Solving Equations (GLE <u>5</u> , <u>8</u> , 11)	2.1, pgs 80-84 3.1, pgs 146-154 3.3, pgs 161-168 3.4, pgs 169-174 3.5, pgs 175-177 pg 178: 3-24; 28-30	pgs 185-186: Act. 1 pgs 188-189: Act. 3	pgs 128-129: 1-12 pg 131: 18-20 pgs 134-138: 35-42, 48-51, 54-55 pg 190: 1-3 pgs 193-195: 25-33
Activity 3: Using a flow chart to solve equations (GLE 5, 8, 11, <u>34</u>)	none		
Activity 4: Linear relationships – Keeping it “real” (GLEs: 7, <u>9</u> , 13, 11, <u>37</u> , 39)	none		
Activity 5: Direct Variation – Science Connection (GLEs: <u>7</u> , 9, 37)	none		
Activity 6: Lines and Direct Proportions (GLEs: <u>9</u> , 11, 37, 39)	none		
Activity 7: Solving Proportions (GLEs: <u>7</u> , 8, 9, 22)	3.2, pgs 155-160: 1-34 12.1, pgs 680-686		pg. 196: 40
Activity 8: Using proportions and direct variation (GLEs: <u>7</u> , 8)	1.9, pgs 49-52 pg 52: 24-29		pg 73: 88-89
Activity 9: How tall is the flagpole? (GLEs: 21, <u>22</u>)			pg 686: 10-11
Activity 10: Using inequalities to problem solve (GLE: <u>11</u>)	9.1, pgs 496-499 9.2, pgs 501-504: 1-21 9.3, pgs 506-510: 1-17	pgs 537-538: Act. 1	pgs 544-546: 1-18, 22-29

Algebra I Comprehensive Curriculum	Correlations Found in <i>Algebra I Mathematics in Context</i> (CORD Algebra I)		
	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 3: Linear Functions and Their Graphs, Rates of Change, and Applications			
Activity 1: What's a Function? (GLEs: 12, <u>35</u> , <u>36</u>) Activity 2: Identify! (GLEs: 8, 12, <u>15</u> , <u>35</u> , and <u>36</u>)	5.1, pgs 280-286 5.2, pgs 287-290		pg 324: 8-11 pg 331: 46-48
Activity 3: Functions of Time (GLEs: <u>15</u> , <u>36</u>)	none		
Activity 4: Patterns and Slope (GLEs: 13, 15, <u>25</u>)	none		
Activity 5: Recognizing Linear Relationships (GLEs: 9, <u>39</u> , 40)	4.1, pgs 206-211 4.2, pgs 213-217 4.3, pgs 218-224	pg 262-263: Act. 2	pg 271: 43-45
Activity 6: Rate of Change (GLEs: 10, 13, 15, 23, <u>25</u> , 39)	5.3, pg 291 4.4, pg 225-233		pg 268: 23-25 pg 327-329: 28-33
Activity 7: Make that Connection! (GLEs: 10, 12, 13, <u>15</u> , 25, 36)		pg 263-264: Act. 3	pg 269: 29-33
Activity 8: Graph Families (GLEs: 37, 38, <u>39</u> , <u>40</u>) Activity 9: Slopes and Y-Intercepts (GLEs: <u>38</u> , <u>40</u>)	4.8, pgs 255-257; pg 258-259: 1-7, 11-33		pg 270: 37-40
Activity 10: Rate of Growth (GLEs: <u>11</u> , <u>13</u> , <u>15</u> , 23, 25, 37, <u>38</u>)	none		
Activity 11: Recognizing Translations (GLEs: 15, <u>26</u>)	none		
Activity 12: Recognizing Reflections (GLEs: 15, <u>26</u>)	none		

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Unit 4: Linear Equations, Inequalities, and Their Solutions			
Activity 1: Generating Equations (GLEs: <u>13</u> , <u>23</u> , 24, 25) Activity 2: Points, Slopes, and Lines (GLE: <u>24</u>)	4.5, pgs 234-240 4.6, pgs 241-248 4.7, pgs 249-254		pg 265: 1-3 pgs 266-267: 9-22 pgs 268-269: 26-36 pgs 271-273: 46-58 pgs 274-275: 64-67
Activity 3: You Sank my Battleship! (GLE: 23, <u>24</u> , 29, 38)	none		
Activity 4: Applications (GLEs: 4, 5, 11, 13, 21, <u>23</u> , <u>24</u> , 25, 38, 39)	7.3, pgs 404-409 pg 410: 4-9		pg 432: 13-17 pg 437: 57-60
Activity 5: Linear Experiments (GLEs: 13, <u>15</u> , <u>23</u> , <u>25</u> , 39)		pg 262-264: Act. 2 and Act. 3	
Activity 6: Processes (GLE: <u>34</u>)	none		
Activity 7: Inequalities (GLEs: <u>11</u> , <u>14</u>)	pg 500: 22-26 pg 504-505: 22-27 pg 510-511: 18-25		pg 547: 35-38 pg 549: 49-55
Activity 8: Is it Within the Area? Interpreting Absolute Value Inequalities in One Variable (GLEs: 5, <u>14</u>)	9.5, pgs 519-521		pg 550: 67-69 pg 551: 72-73
Activity 9: Graphing Inequalities in Two Variables (GLE: <u>14</u>)	9.6: pgs 523-531		pgs 547-548: 39-40, 44-48 pg 553: 91-93

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	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 5: Systems of Equations and Inequalities			
Activity 1: Systems of Equations (GLEs: 15, <u>16</u> , 23) Activity 2: Battle of the Sexes (GLEs: 11, 15, <u>16</u> , <u>23</u> , 39)	8.1, pgs 442-447 8.2, pgs 449-454	pgs 476-477: Act. 1 pgs 477-479: Act. 2	pgs 481-482: 5-11 pg 483: 16-19 pgs 483-484: 24-26, 32-33 pg 486: 46-49 pg 487: 50-54 pg 488: 61-64 pg 489: 65-69
Activity 3: Substitution (GLEs: 11, 12, 15, <u>16</u> , 23, 39)	8.3, pgs 456-461		pg 483: 20-23 pg 484: 27-31 pg 488: 43-45 pg 489: 69-71
Activity 4: Elimination (GLEs: 11, 12, 15, <u>16</u> , 23, 39)	8.4, pgs 463-468 8.5, pgs 470-474		pg 482: 12-15 pg 487: 55-57 pg 488: 58-60 pg 490: 72-75
Activity 5: Supply and Demand (GLEs: 11, 15, <u>16</u> , 23)	none		
Activity 6: Introduction to Matrices (GLE: <u>16</u>)	1.6: pgs 32-36	pgs 56-58: Act. 3	pgs 63-64: 41-44
Activity 7: Multiplying matrices (GLE: <u>16</u>)	none		
Activity 8: Solving Systems of Equations with Matrices (GLE: <u>16</u>)	none		
Activity 9: Systems of Inequalities (GLE: <u>14</u>) Activity 10: Name that solution (GLE: <u>14</u>)	9.7, pgs 532-535		pgs 546-547: 30-34 pg 548: 41-43 pgs 549-550: 56-66

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	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 6: Measurement			
Activity 1: What Does it Mean to be Accurate? (GLEs: 4, <u>17</u>)	2.7, pgs 114-115 pg 116: 2 pg 117: 12, 13, 15		pg 135: 38-42
Activity 2: How Precise is Your Measurement Tool? (GLEs: 4, 17, <u>18</u>)	2.7, pg 114 pg 116: 1, 4-7 pg 117: 14		
Activity 3: Temperature—How Precise Can You Be? (GLEs: 4, 17, <u>18</u>)	none		
Activity 4: Repeatability and Precision (GLE: <u>17</u>)	2.7, pg 114		
Activity 5: Precision vs. Accuracy (GLE: <u>17</u>)	none		
Activity 6: Absolute Error (GLEs: 18, <u>20</u>)	none		
Activity 7: Relative Error (GLEs: 4, 5, <u>20</u>)	none		
Activity 8: What's the Cost of Those Bananas? (GLEs: 4, 17, <u>18</u>)	none		
Activity 9: What are Significant Digits? (GLEs: 4, <u>19</u>)	2.7, pgs 115-116 pg 116: 3 pg 117: 8-11		
Activity 10: Calculating with Significant Digits (GLEs: 4, <u>19</u>)	none		
Activity 11: Measuring the Utilities You Use (GLE: <u>19</u>)	none		
Activity 12: Which Unit of Measurement? (GLEs: 5, <u>21</u>)	none		

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	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 7: Exponents, Exponential Functions, and Nonlinear Graphs			
Activity 1: Evaluation (GLEs: <u>2</u> , <u>12</u> , <u>15</u> , <u>29</u> , <u>36</u>)	none		
Activity 2: The King's Chessboard – Modeling exponential growth (GLEs: <u>15</u> , <u>29</u>)	5.6, pgs 312-313		
Activity 3: What's with my M&Ms®? Modeling exponential decay (GLEs: <u>15</u> , <u>29</u>)	5.6, pgs 315-316		
Activity 4: Vampire simulation (GLEs: <u>10</u> , <u>11</u> , <u>15</u> , <u>29</u>)	none		
Activity 5: Exponential Decay in Medicine (GLEs: <u>10</u> , <u>11</u> , <u>15</u> , <u>29</u>)	none		
Activity 6: Exploring Exponents (GLEs: <u>2</u> , <u>8</u>)	10.3, pgs 570-573 10.4, pgs 575-579 pg 580: 1-19		
Activity 7: Operations on Polynomials using Algebra Tiles (GLEs: <u>2</u> , <u>8</u>)	10.1, pgs 558-563 10.6, pgs 586-592		pg 611: 5-11 pg 612: 19-22
Activity 8: Scientific Notation (GLE: <u>3</u>)	pg 40-41 pg 43: 32-39		pg 60: 23-24
Activity 9: Combining Radicals (GLEs: <u>2</u> , <u>6</u> , <u>11</u>)	pgs 717-718 pg 721: 3-8 pg 310: 14-27		
Activity 10: Revisiting Inverse Variation (GLE: <u>7</u>)	pgs 293-294 pg 295: 15-18		pgs 328-329: 34-37 pgs 330-331: 43-45 pg 332: 53-56 pg 333: 58

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	<i>Lesson</i>	<i>Math Lab</i>	<i>Career Application Problems</i>
Unit 8: Data, Chance, and Algebra			
Activity 1: Measures of Central Tendency (GLE: <u>27</u>) Activity 2: Mean, Median, or Mode? (GLE: <u>27</u>)	7.1, pgs 390-396	pgs 426-427: Act. 1	pgs 430-431: 1-8 pg 436: 48-52 pg 437: 53-56
Activity 3: Probability Experiments (GLEs: <u>30</u> , <u>31</u>)	6.1, pgs 342-349 pg 347: 5-9, 11-19 6.2, pgs 349-350 pg 352 pgs 354-355: 3-16		pg 379: 6, 7, 9 pg 382: 35-39
Activity 4: Remove One (GLEs: <u>30</u> , <u>31</u>)		pg 374-375: Act. 1	
Activity 5: What's the Probability? (GLEs: <u>30</u> , <u>31</u>)	none		
Activity 6: Geometric Probability (GLEs: <u>31</u> , <u>32</u>)		pgs 375-376: Act. 2	
Activity 7: What are the odds? (GLE: <u>33</u>)	6.1, pgs 345-346 pg 347: 10, 20, 24-36		pg 381: 28
Activity 8: It's Conditional! (GLEs: <u>30</u> , <u>31</u> , <u>32</u>)	6.3, pgs 356-360 pg 361: 19-22		pg 379: 11-13 pg 380: 14-19
Activity 9: Permutations, combinations, and probability (GLE: <u>32</u>)	6.4, pgs 362-366 pg 367: 13-16	pg 377: Act. 3	pg 378: 4-5 pg 382: 32-34 pg 384: 46-47, 51-52
Activity 10: Dependent vs. Independent Events (GLE: <u>33</u>)	6.5, pgs 368-373		pg 378: 1-3 pgs 380-381: 20-24 pg 384: 48-50 pg 385: 57-59
Activity 11: The Probability of Possible Combinations (GLE: <u>32</u>)	none		