

## Unit 1 - Number System

Students will be able to:

1. Define absolute value of a number.
2. Find absolute values of numbers
3. Add integers
4. Show the sum of a number and its opposite is 0.
5. Subtract Integers.
6. Multiply integers
7. Divide integers.
8. Understand that a rational number is an integer divided by an integer.
9. Convert rational numbers to decimals.
10. Add rational numbers.
11. Subtract rational numbers.
12. Multiply and divide rational numbers.
13. Solve real-life problems.

Timeframe	Resources
25-30 Days	<p><b><u>Digital/Print Resources</u></b></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook: Chapters 1 and 2, pages 1-76.</li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><b><u>Materials/Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>● Integer chips</li> <li>● Number lines</li> <li>● Game of One Dice game</li> <li>● Tic Tac Toe Board for Multiplication and Division Rules</li> </ul>
Assessments	
<p><u>Unit 1A Assessment</u> Integers Acquisition Skills 1-7, 13</p> <p><u>Unit 1B Assessment</u> Rational Numbers Acquisition Skills 8-13</p>	

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|  | <ul style="list-style-type: none"><li>• Integer Rules Song</li><li>• Fraction bars</li><li>• Number line</li></ul> |
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## Unit 2 – Expressions & Equations

Students will be able to:

1. Solve equations using multiplication or division.
2. Solve two-step equations.
3. Apply properties of operations to simplify algebraic expressions.
4. Apply properties of operations to add and subtract linear expressions.
5. Factor linear expressions.
6. Write simple equations.
7. Solve equations using addition or subtraction.
8. Write and graph inequalities.
9. Use substitution to check whether a number is a solution of an inequality.
10. Solve inequalities using addition or subtraction.
11. Solve inequalities using multiplication or division.
12. Solve multi-step inequalities.
13. Solve real-life problems.

Timeframe	Resources
30 – 35 Days	<p><b><u>Digital/Print Resources</u></b></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook: Chapters 3 and 4, pages 78 – 159.                                     <ul style="list-style-type: none"> <li>■ Must Include Extension 3.2</li> </ul> </li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><b><u>Materials/Manipulatives</u></b></p> <ul style="list-style-type: none"> <li>● Algebra Tiles</li> <li>● On Hands Math Kit</li> </ul>
Assessments	
<p><u>Unit 2A Assessment</u> Expressions &amp; Equations Acquisition Skills 1-6, 12</p> <p><u>Unit 2B Assessment</u> Inequalities Acquisition Skills 7-12</p>	

**Unit 3 – Ratios, Proportional Relationships & Percents**

Students will be able to:

1. Find ratios, rates and unit rates.
2. Find ratios and rates involving ratios of fractions.
3. Use equivalent ratios to determine whether two ratios form a proportion.
4. Use the Cross Products Property to determine whether two ratios form a proportion.
5. Use graphs to determine whether two ratios form a proportion.
6. Interpret graphs of proportional relationships.
7. Write proportions.
8. Solve proportions using mental math.
9. Solve proportions using multiplication or the Cross Products Property.
10. Use a point on a graph to write and solve proportions.
11. Find the slopes of lines.
12. Interpret the slopes of lines as rates.

13. Identify direct variation from graphs or equations.
14. Use direct variation models to solve problems.
15. Write percents as decimals.
16. Write decimals and percents.
17. Compare and order fractions, decimals, and percents.
18. Use the percent proportion to find parts, wholes, and percents.
19. Use the percent equation to find parts, wholes, and percents.
20. Find percents of increase.
21. Find percents of decrease.
22. Use percent of discounts to find prices of items.
23. Use percent of markups to find selling prices of items.
24. Use the simple interest formula to find interest earned or paid, annual interest rates, and amounts paid on loans.
25. Solve real-life problems.

Timeframe

Resources

25 – 30 Days

Digital/Print Resources

- Big Ideas Math Resources (Red)
  - Textbook: Chapters 5 and 6, pages 160 – 267.
    - Must include Extension 5.2 prior to 5.6
  - Record and Practice Journal
  - Resources by Chapter
  - Assessment Guide
  - Textbook Quiz & Test for additional practice

<b>Assessments</b>	<ul style="list-style-type: none"><li>• Grade Level Schoology Resources</li></ul>
<u>Unit 3A Assessment</u> Ratios & Proportions Acquisition Skills 1-14, 25  <u>Unit 3B Assessment</u> Percents Acquisition Skills 15-25	<u>Materials/Manipulatives</u> <ul style="list-style-type: none"><li>• Store advertisements</li><li>• Store price labels of items</li></ul>

### Unit 4 - Statistics & Probability

Students will be able to:

1. Identify and count the outcomes of experiments.
2. Understand the concept of probability and the relationship between probability and likelihood.
3. Find probabilities of events
4. Find relative frequencies
5. Use experimental probabilities to make predictions
6. Use theoretical probabilities to find qualities
7. Compare experimental and theoretical probabilities.
8. Use tree diagrams, tables, or a formula to find the number of possible outcomes.
9. Find the probabilities of compound events.
10. Identify independent and dependent events
11. Use formulas to find probabilities of independent and dependent events.
12. Determine when samples are representative of populations.
13. Use data from random samples to make predictions about populations.
14. Use measures of center and variation to compare populations.
15. Use random samples to compare populations.
16. Solve real-life problems.

Timeframe	Resources
20 - 25 Days	<p><u>Digital/Print Resources</u></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook: Chapter 10, pages 398-463.                                     <ul style="list-style-type: none"> <li>■ Must include Extension 10.5 Big Ideas Math Red Record and Practice Journal</li> </ul> </li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul>
Assessments	
<p><u>Unit 4 Assessment</u> Probability &amp; Statistics Acquisition Skills 1-16</p>	

	<p><u>Materials/Manipulatives</u></p> <ul style="list-style-type: none"><li>● Integer chips</li><li>● Spinners</li><li>● Marbles</li><li>● Number cubes</li><li>● Coins</li></ul>
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- Integer chips
- Spinners
- Marbles
- Number cubes
- Coins

## Unit 5 - Geometry

Students will be able to:

1. Identify adjacent and vertical angles.
2. Find angle measures using adjacent and vertical angles.
3. Classify pairs of angles as complementary, supplementary, or neither.
4. Find angle measures using complementary and supplementary angles.
5. Identify the angle relationships formed when parallel lines are cut by a transversal.
6. Find the measures of angles formed when parallel lines are cut by a transversal.
7. Construct triangles with given angle measures.
8. Construct triangles with given side lengths.
9. Find missing angle measures in triangles by understanding that the sum of the angle measures of any triangle is 180 degrees.
10. Use and apply the triangle inequality theorem.
11. Determine if a triangle can have given measurements.
12. Find missing angle measures in quadrilaterals by understanding that the sum of the angle measures of any quadrilateral is 360 degrees.
13. Construct quadrilaterals.
14. Use scale drawings to find actual distances.
15. Find scale factors.
16. Use scale drawings to find actual perimeters and areas.
17. Recreate scale drawings at a different scale.
18. Describe a circle in terms of radius and diameter.
19. Understand the concept of pi.
20. Find circumferences of circles and perimeters of semicircles.
21. Find the perimeters of composite figures.
22. Find the areas of circles and semicircles.
23. Find the areas of composite figures by separating figures by separating them into familiar figures.
24. Use two-dimensional nets to represent three-dimensional solids.
25. Find the surface areas of rectangular and triangular prisms.
26. Find surface areas of regular pyramids.



<p>27. Find surface areas of cylinders.                  28. Find the volumes of prisms.                  29. Find the volumes of pyramids.                  30. Solve real-life problems.</p>	
Timeframe	Resources
33- 38 Days	<p><u>Digital/Print Resources</u></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook: Chapters 7, 8, and 9, pages 268 – 397.                                     <ul style="list-style-type: none"> <li>■ In Chapter 7, must supplement with additional materials for angle relationships with parallel line cut by a transversal and Triangle Inequality Theorem (not covered in Big Ideas Red Textbook).</li> </ul> </li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><u>Materials/Manipulatives</u></p> <ul style="list-style-type: none"> <li>● Tessellation</li> <li>● 3-D figures</li> <li>● Nets of figures</li> <li>● Formula sheet</li> <li>● Graph paper</li> </ul>
Assessments	
<p><u>Unit 5A Assessment</u>                  Constructions &amp; Scale Drawings                  Acquisition Skills 1-17, 30</p> <p><u>Unit 5B Assessment</u>                  Circles and Area                  Acquisition Skills 18-23, 30</p> <p><u>Unit 5C Assessment</u>                  Surface Area &amp; Volume                  Acquisition Skills 19-30</p>	

<b>Unit</b>	
Students will be able to: 26.	
Timeframe	Resources
	<p><u>Digital/Print Resources</u></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook:</li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><u>Materials/Manipulatives</u></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><u>Technology Resources</u></p> <ul style="list-style-type: none"> <li>●</li> </ul>
Assessment Window	

<b>Unit</b>	
Students will be able to: 27.	
Timeframe	Resources
	<p><u>Digital/Print Resources</u></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook:</li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><u>Materials/Manipulatives</u></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><u>Technology Resources</u></p> <ul style="list-style-type: none"> <li>●</li> </ul>
Assessment Window	

<b>Unit</b>	
Students will be able to: 28.	
Timeframe	Resources
	<p><u>Digital/Print Resources</u></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Resources (Red)                             <ul style="list-style-type: none"> <li>○ Textbook:</li> <li>○ Record and Practice Journal</li> <li>○ Resources by Chapter</li> <li>○ Assessment Guide</li> <li>○ Textbook Quiz &amp; Test for additional practice</li> </ul> </li> <li>● Grade Level Schoology Resources</li> </ul> <p><u>Materials/Manipulatives</u></p> <ul style="list-style-type: none"> <li>●</li> </ul> <p><u>Technology Resources</u></p> <ul style="list-style-type: none"> <li>●</li> </ul>
Assessment Window	