# Unit 3 (Ch 9 & 11-14)

Content Area: **Mathematics**
Course(s): **Mathematics 4**
Time Period: **March**
Length: **61 days (including 2 days for iReady testing)**
Status: **Published**

## Unit #3 Overview

The students will be working on:

Multiply Fractions and Whole Numbers

Understand Measurement Equivalence

Use Perimeter and Area Formulas

Identify and Draw Lines and Angles

Identify Symmetry and Two-Dimensional Shapes

## Priority Standards

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| MATH.4.OA.A.3 | Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. |
| MATH.4.NF.B.4 | Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. |
| MATH.4.NF.B.4.a | Understand a fraction $a/b$ as a multiple of $1/b$. |
| MATH.4.NF.B.4.b | Understand a multiple of $a/b$ as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. |
| MATH.4.NF.B.4.c | Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. |
| MATH.4.M.A.1 | Know relative sizes of measurement units within one system of units including km, m, cm, mm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. |
| MATH.4.M.A.2 | Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams |

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| | such as number line diagrams that feature a measurement scale. |
| MATH.4.M.A.3 | Apply the area and perimeter formulas for rectangles in real world and mathematical problems. |
| MATH.4.M.B.4.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 1/360th of a circle is called a "one-degree angle," and can be used to measure angles. |
| MATH.4.M.B.4.b | An angle that turns through $n$ one-degree angles is said to have an angle measure of $n$ degrees. |
| MATH.4.M.B.5 | Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. |
| MATH.4.M.B.6 | 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. |
| MATH.4.DL.B.5 | Make a line plot to display a data set of measurements in fractions of a unit (½, ¼, ⅛). Solve problems involving addition and subtraction of fractions by using information presented in line plots. |
| MATH.4.G.A.1 | Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. |
| MATH.4.G.A.2 | Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category and identify right triangles. |
| MATH.4.G.A.3 | Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. |

## Learning Targets

- Lesson 11-1: I can write lengths using equivalent metric measures.
- Lesson 11-2: I can write masses and capacities using equivalent metric measures.
- Lesson 11-3: I can write lengths using equivalent customary measures.
- Lesson 11-4: I can write weights using equivalent customary measures.
- Lesson 11-5: I can write capacities using equivalent customary measures.
- Lesson 11-6: I can make line plots and use them to solve problems.
- Lesson 11-7: I can write amounts of time using equivalent measures.
- Lesson 11-8: I can solve multi-step word problems involving elapsed time.
- Lesson 11-9: I can add and subtract mixed measures.
- Lesson 12-1: I can use a formula to find the perimeter of a rectangle.
- Lesson 12-2: I can use a formula to find the area of a rectangle.
- Lesson 12-3: I can find unknown measures of rectangles.
- Lesson 12-4: I can solve multi-step word problems involving perimeter or area.
- Lesson 13-1: I can identify and draw points, lines, line segments, and rays.
- Lesson 13-2: I can identify and draw angles.

- Lesson 13-3:  I can identify and draw intersecting lines, parallel lines, and perpendicular lines.
- Lesson 13-4:  I can measure angles using degrees.
- Lesson 13-5:  I can find the measures of angles.
- Lesson 13-6:  I can measure and draw angles.
- Lesson 13-7:  I can find the measure of an angle using its parts.
- Lesson 13-8:  I can find the measures of unknown angles.
- Lesson 14-1:  I can identify shapes that have line symmetry.
- Lesson 14-2:  I can draw symmetric shapes.
- Lesson 14-3:  I can classify triangles by their sides.
- Lesson 14-4:  I can classify triangles by their angles.
- Lesson 14-5:  I can classify quadrilaterals.
- Lesson 9-1:  I can write fractions as multiples of unit fractions.
- Lesson 9-2:  I can write multiples of fractions as multiples of unit fractions.
- Lesson 9-3:  I can multiple whole numbers and fractions.
- Lesson 9-4:  I can multiply whole numbers and mixed numbers.
- Lesson 9-5:  I can solve multi-step word problems involving fractions and mixed numbers.

## Essential Questions

- How are different ideas about geometry connected?
- How are fractions and decimals related?
- How can conversion of measurements help me solve real-world problems?
- Why do we convert measurements?
- Why is it important to measure perimeter and area?

## Materials and Resources

- Big Ideas Online digital platform
- Big Ideas Workbook Volume 2
- Exit Tickets
- Foldables
- Hands-On Manipulatives
- iReady platform 40 minutes/week with individual paths for each student
- Problem of the Day (Printable)
- Visual Vocabulary Flashcards
- Weekly Calendar

## Unit Assessments (Required)

- Big Ideas Chapter 10 Assessment Form B
- Big Ideas Chapter 11 Assessment Form B
- Big Ideas Chapter 12 Assessment Form B
- Big Ideas Chapter 13 Assessment Form B
- Big Ideas Chapter 14 Assessment Form B
- Big Ideas Chapter 9 Assessment Form B

## Unit Assessments (Optional)

- Big Ideas Chapter Assessment Form A
- Big Ideas Created Assessment: Course Benchmark # 3 (for use after Chapter 14)
- Big Ideas Created Assessment: Post-Course Benchmark (end of year)
- Journal Writing
- Standardized Test Practice (NJSLA released items/iReady platform)

## Learning Plan

| Time Frame | Big Ideas | NJSLA Priority Standard | Learning Goals | Learning Targets | Lesson/Activities |
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| Chapter 9<br><br>(11 days) | Chapter 9:<br><br>Lesson 1 | 4.NF.B.4<br><br>Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.<br><br>4.NF.B.4a Understand a fraction a / b as a multiple of 1 / b . | ● Write a fraction as a sum of unit fractions.<br><br>● Use multiplication to rewrite a sum of unit fractions.<br><br>● Write a fraction as a multiple of a unit fraction. | I can write fractions as multiples of unit fractions. | -Chapter Opener<br><br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, |

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| | | | | | Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 |
| Chapter 9<br><br>(11 days) | Chapter 9:<br><br>Lesson 2 | 4.NF.B.4<br><br>Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.<br><br>4.NF.B.4b Understand a multiple of a / b as a multiple of 1 / b , and use this understanding to multiply a fraction by a whole number.<br><br>4.NF.B.4c<br><br>Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. | ● Write a fraction as a multiple of a unit fraction.<br><br>● Write a multiple of a fraction as a multiple of a unit fraction.<br><br>● Find the product of a whole number and a unit fraction. | I can write multiples of fractions as multiples of unit fractions. | |

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| | | | | | minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 9<br><br>(11 days) | Chapter 9:<br><br>Lesson 3 | 4.NF.B.4<br><br>Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.<br><br>4.NF.B.4b Understand a multiple of a / b as a multiple of 1 / b , and use this understanding to multiply a fraction by a whole number.<br><br>4.NF.B.4c<br><br>Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. | ● Write a multiple of a fraction as a multiple of a unit fraction.<br><br>● Use a rule to find the product of a whole number and a fraction.<br><br>● Explain why the rule used to multiply a whole number and a fraction makes sense. | I can multiple whole numbers and fractions. | |
| Chapter 9<br><br>(11 days) | Chapter 9:<br><br>Lesson 4 | 4.NF.B.4<br><br>Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.<br><br>4.NF.B.4b Understand a multiple of a / b as a multiple of 1 / b , and use this understanding to multiply a fraction by a whole number. | ● Write a mixed number as a fraction to multiply.<br><br>● Use the Distributive Property to multiply.<br><br>● Find the product | I can multiply whole numbers and mixed numbers. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online |

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| | | 4.NF.B.4c<br><br>Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. | | of a whole number and a mixed number. | | platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & |
| Chapter 9<br><br>(11 days) | Chapter 9:<br><br>Lesson 5 | 4.NF.B.4<br><br>Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.<br><br>4.NF.B.4b Understand a multiple of a / b as a multiple of 1 / b , and use this understanding to multiply a fraction by a whole number.<br><br>4.NF.B.4c<br><br>Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. | | ● Understand a problem.<br><br>● Make a plan to solve.<br><br>● Solve a problem using an equation. | I can solve multi-step word problems involving fractions and mixed numbers. | |

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| | | | | | Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-Review & Chapter Assessment<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 1 | 4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | ● Compare sizes of metric units of length.<br><br>● Write metric lengths using smaller metric units.<br><br>● Make tables of equivalent metric lengths. | I can write lengths using equivalent metric measures. | |

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| | | | | | -Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| | | 4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | ● Compare sizes of metric units of mass and capacity.<br><br>● Write metric masses and capacities using smaller metric units.<br><br>● Make tables of equivalent metric measures. | I can write masses and capacities using equivalent metric measures. | |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 2 | | | | |
| Chapter 11 | Chapter 11: | 4.MD.A.1 Know relative sizes of measurement units within one system | ● Compare sizes of customary units | I can write lengths using | -Whole Group Lesson |

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| (15 days) | Lesson 3 | of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | of length.<br><br>● Write customary lengths using smaller customary units.<br><br>● Make tables of equivalent customary lengths. | equivalent customary measures. | -Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 4 | 4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, | ● Compare sizes of customary units of weight.<br><br>● Write customary weights using smaller customary units.<br><br>● Make tables of equivalent customary weights. | I can write weights using equivalent customary measures. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating |

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| | | masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | | | Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 5 | 4.MD.A.1<br><br>Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | ● Compare sizes of customary units of capacity.<br><br>● Write customary capacities using smaller customary units.<br><br>● Make tables of equivalent customary capacities. | I can write capacities using equivalent customary measures. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich |

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| | | | | | and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 6 | 4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.<br><br>4.DL.B.5<br><br>Make a line plot to display a data set of measurements in fractions of a unit ( 1/2 , 1/4 , 1/8) . Solve problems involving addition and subtraction of fractions by using information presented in line plots. | ● Make a line plot.<br><br>● Interpret a line plot.<br><br>● Use a line plot to solve a real-life problem. | I can make line plots and use them to solve problems. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |

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| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 7 | 4.MD.A.1<br><br>Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | ● Compare sizes of units of time.<br><br>● Write amounts of time using smaller units.<br><br>● Make tables of equivalent amounts of time. | I can write amounts of time using equivalent measures | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 8 | 4.MD.A.1<br><br>Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. | ● Understand a problem.<br><br>● Make a plan to solve.<br><br>● Solve a problem. | I can solve multi-step word problems involving elapsed time. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform) |

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| | | 4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | | | -See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 11<br><br>(15 days) | Chapter 11:<br><br>Lesson 9 | 4.MD.A.1<br><br>Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.<br><br>4.MD.A.2<br><br>Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using | ● Write measures using smaller units.<br><br>● Use regrouping to rewrite a mixed measure. | I can add and subtract mixed measures. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite |

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| | | diagrams such as number line diagrams that feature a measurement scale. | | | Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Chapter Opener<br><br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or |
| Chapter 12<br><br>(9 days) | Chapter 12:<br><br>Lesson 1 | 4.M.A.3<br><br>Apply the area and perimeter formulas for rectangles in real world and mathematical problems. | ● Write a formula for the perimeter of a rectangle.<br><br>● Find the perimeter of a rectangle. | I can use a formula to find the perimeter of a rectangle. | |

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| | | | | | through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 12 (9 days) | Chapter 12: Lesson 2 | 4.M.A.3<br>Apply the area and perimeter formulas for rectangles in real world and mathematical problems. | ● Write a formula for the area of a rectangle.<br><br>● Find the area of a rectangle. | I can use a formula to find the area of a rectangle. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 12 (9 days) | Chapter 12: Lesson 3 | 4.M.A.3<br>Apply the area and perimeter formulas for rectangles in real world and mathematical problems. | ● Find an unknown measure of a rectangle given the area.<br><br>● Find an unknown measure | I can find unknown measures of rectangles. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created |

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| | | | of a rectangle given the perimeter. | | or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 12<br><br>(9 days) | Chapter 12:<br><br>Lesson 4 | 4.M.A.3<br><br>Apply the area and perimeter formulas for rectangles in real world and mathematical problems.<br><br>4.OA.A.3<br><br>Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including | ● Understand a problem.<br><br>● Make a plan to solve.<br><br>● Solve a problem. | I can solve multi-step word problems involving perimeter or area. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers |

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| | | rounding. | | | -See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-Review & Chapter Assessment<br><br>-iReady for 40 minutes/week |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 1 | 4.G.A.1<br><br>Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. | ● Identify points, lines, line segments, and rays.<br><br>● Name points, lines, line segments, and rays.<br><br>● Draw points, lines, line segments, and rays. | I can identify and draw points, lines, line segments, and rays. | -Chapter Opener<br><br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra |

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| | | | | | Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 2 | 4.G.A.1<br><br>Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. | ● Identify angles as right, straight, acute, or obtuse.<br><br>● Name angles.<br><br>● Draw angles. | I can identify and draw angles. | |

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| | | | | | platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 3 | 4.G.A.1<br><br>Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. | ● Identify intersecting lines, parallel lines, and perpendicular lines.<br><br>● Draw intersecting lines, parallel lines, and perpendicular lines. | I can identify and draw intersecting lines, parallel lines, and perpendicular lines. | |
| | | | | | -iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 4 | 4.M.B.4 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:<br><br>4.M.B.4a An angle is measured with reference to a circle with its center at the common endpoint of the rays, by | ● Use fractional parts of a circle to measure angles.<br><br>● Explain how degrees are related to fractional parts of a circle. | I can measure angles using degrees. | |

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| | | considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles. b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. | | | Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 5 | 4.M.B.4 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:<br><br>4.M.B.4a 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 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles.<br><br>4.M.B.4b An angle that turns through n one-degree angles is said to have an angle measure of n degrees. | ● Find the angle measures of a pattern block.<br><br>● Use a pattern block to find an angle measure. | I can find the measures of angles. | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for |

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| | | | | | Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week |
| | | 4.G.A.1<br><br>Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.<br><br>4.M.B.4 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: | | | -Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 6 | 4.M.B.4a 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 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles.<br><br>4.M.B.4b An angle that turns through n one-degree angles is said to have an angle measure of n degrees.<br><br>4.M.B.5 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. | ● Use a protractor to measure an angle.<br><br>● Use a protractor to draw an angle. | I can measure and draw angles. | |

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| | | | | | workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math |
| | | 4.M.B.5 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. | ● Identify the parts of an angle. | | |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 7 | 4.M.B.6 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. | ● Find the measure of an angle by adding its parts.<br><br>● Write an equation to find an angle measure. | I can find the measure of an angle using its parts. | |
| Chapter 13<br><br>(14 days) | Chapter 13:<br><br>Lesson 8 | 4.M.B.5 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.<br><br>4.M.B.6 Recognize angle measure as additive. When an angle is | ● Describe how a pair of angles are related.<br><br>● Write an equation to find an | I can find the measures of unknown angles. | |

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| | | 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. | unknown angle measure.<br><br>● Solve an equation to find an unknown angle measure. | | already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-Review & Chapter Assessment<br><br>-iReady for 40 minutes/week |
| Chapter 14<br><br>(12 days = 10 + 2 days for iReady testing) | Chapter 14:<br><br>Lesson 1 | 4.G.A.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. | ● Determine whether a shape has line symmetry.<br><br>● Identify how many lines of symmetry a shape has.<br><br>● Draw each line of symmetry a shape has. | I can identify shapes that have line symmetry. | -Chapter Opener<br><br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies |

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| Chapter 14<br><br>(12 days<br><br>= 10 + 2 days for iReady testing) | Chapter 14:<br>Lesson 2 | 4.G.A.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. | ● Draw a symmetric shape given one half of the shape and a line of symmetry.<br><br>● Draw a symmetric shape given one half of the shape. | I can draw symmetric shapes. | for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra |

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| | | | | | Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online |
| Chapter 14<br><br>(12 days = 10 + 2 days for iReady testing) | Chapter 14: Lesson 3 | 4.G.A.2<br><br>Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. | ● Identify sides of a triangle with the same length.<br><br>● Identify sides of a triangle with different lengths.<br><br>● Use sides to classify a triangle. | I can classify triangles by their sides. | |

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| | | | | | platform<br><br>-iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform |
| Chapter 14<br><br>(12 days<br><br>= 10 + 2 days for iReady testing) | Chapter 14:<br><br>Lesson 4 | 4.G.A.2<br><br>Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. | ● Identify an angle as right, acute, or obtuse.<br><br>● Use angles to classify a triangle.<br><br>● Use angles and sides to classify a triangle. | I can classify triangles by their angles. | -iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform |
| Chapter 14<br><br>(12 days<br><br>= 10 + 2 days for | Chapter 14:<br><br>Lesson 5 | 4.G.A.2<br><br>Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. | ● Identify parallel sides and sides with the same length in a quadrilateral.<br><br>● Identify right angles of a | I can classify quadrilaterals. | -iReady for 40 minutes/week<br>-Whole Group Lesson<br><br>-Exit Tickets (4th grade shared folder Math already created or create your own online via |

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| iReady testing) | quadrilateral.<br><br>● Use angles and sides to classify a quadrilateral. | Big Ideas online platform)<br><br>-See Strategies for Differentiating Instruction to utilize during Math Centers<br><br>-See Resources by Chapter for Daily Skills & Vocab, Prerequisite Skills, Extra Practice, Reteach, Enrich and Extend Activities<br><br>-Homework by lessons may be assigned via the workbook or through the Big Ideas online platform<br><br>-Review & Chapter Assessment<br><br>-iReady for 40 minutes/week |

## Technology Integration

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| Learn Zillion | https://learnzillion.com/ |
| Math Playground | http://www.mathplayground.com/grade_4_games.html |
| Internet4Classrooms<br><br>(all skills) | http://www.internet4classrooms.com/skills-4th-mathbuilders.htm |
| iReady learning platform | Students can access through the Clever portal |

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| TECH.8.1.5.A.1 | Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems. |
| TECH.8.1.5.A.3 | Use a graphic organizer to organize information about problem or issue. |
| TECH.8.1.5.E.1 | Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a |

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| | variety of tasks. |
| TECH.8.1.5.F.1 | Apply digital tools to collect, organize, and analyze data that support a scientific finding. |
| TECH.8.2.5.D.3 | Follow step by step directions to assemble a product or solve a problem. |
| TECH.8.2.5.E.4 | Use appropriate terms in conversation (e.g., algorithm, program, debug, loop, events, procedures, memory, storage, processing, software, coding, procedure, and data). |

## Interdisciplinary Connections

- 4.DL.B.5 Math/Science: Climate Change data literacy--make a line plot to display a data set of measurements in fractions of a unit in regards to natural resources.
- 4.M.A.2 Math/Science: Climate Change problem solving--use the four operations to solve word problems related to the use of natural resources and involving distance, time, liquid volume, and/or the mass of objects.
- 4.MD.3 Math/Engineering: Use the skills of area and perimeter to design a house, zoo, city, etc.
- 4.MD.6 Math/Art: Design a kitchen or bathroom tile and list the angle measurements of the tiles
- 4.MD.6 Math/Science: Correlating physics unit to math (For example: building roller coasters in connection to science units)
- 4.NBT.2 Students will integrate SCIENCE, technology, engineering, and/or art with math to develop a game that involves priority standards addressed in Unit #3
- 4.NF.3 Math/Health/Science: Develop recipes with fractions when planning a real world, large event (For example: birthday party, graduation, holiday)
- 4.OA.3 Math/Music/Reading: Big Ideas Musicals
- 4.OA.3 Math/Science: Climate Change problem solving--use the four operations to solve multi-step word problems posed with whole numbers, having whole-number answers and that are based on energy, fuels, and natural resources.
- 4.OA.3 Math/Science/Reading: Big Ideas STEAM Videos & Performance Tasks
- W.4.7 Math/Social Studies/Writing: Research a famous mathematician

## 21st Century Life & Career Ready Practices

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| CRP.K-12.CRP2 | Apply appropriate academic and technical skills. |
| CRP.K-12.CRP3 | Attend to personal health and financial well-being. |
| CRP.K-12.CRP6 | Demonstrate creativity and innovation. |
| CRP.K-12.CRP8 | Utilize critical thinking to make sense of problems and persevere in solving them. |
| CRP.K-12.CRP11 | Use technology to enhance productivity. |
| PFL.9.1.4.B | Money Management |
| PFL.9.1.4.E | Becoming a Critical Consumer |