TOWNSHIP OF UNION PUBLIC SCHOOLS

Grade 5 Mathematics

Adopted: August 27, 2024

Mission Statement

The mission of the Township of Union Public Schools is to build on the foundations of honesty, excellence, integrity, strong family, and community partnerships. We promote a supportive learning environment where every student is challenged, inspired, empowered, and respected as diverse learners. Through cultivation of students' intellectual curiosity, skills and knowledge, our students can achieve academically and socially, and contribute as responsible and productive citizens of our global community.

Philosophy Statement

The Township of Union Public School District, as a societal agency, reflects democratic ideals and concepts through its educational practices. It is the belief of the Board of Education that a primary function of the Township of Union Public School System is to formulate a learning climate conducive to the needs of all students in general, providing therein for individual differences. The school operates as a partner with the home and community.

Unit I Module A

Unit Title: Mathematics – Operations on Decimals and Numerical Expressions – Unit 1 – Module A

Grade level: Grade 5 **Timeframe: 6 weeks**

Rationale

Grade 5 – Operations on Decimals and Numerical Expressions – Unit 1

The focus of Unit 1 is to understand place value to the thousandth place. This concept builds on students' grade 4 understandings of decimals to the hundredths place. After examining the quantitative relationships that exist between the digits in place value positions of a multi-digit number, learners apply their previous understandings of adding and subtracting to add and subtract decimals.

While learners read, write, and compare decimals to the thousandth place using base-ten numerals, number names, and expanded form, the focus of this unit is the addition and subtraction of decimals to the hundredth place. The additional and supporting concepts and skills engage learners in analyzing the structure of numerical expressions. Learners evaluate and write numerical expressions with grouping symbols, write numerical expressions from a description, and interpret numerical expressions.

Guiding Questions

- How does the value of a digit compare to its neighboring digits?
- What happens to the value of a digit as it moves to the left on a place value chart?
- What happens to the value of a digit as it moves to the right on a place value chart?
- How are whole numbers and decimals written, compared, ordered, and rounded?

Standards

Standards (Taught and Assessed):

■ **5.NBT.A.1** Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.

■ **5.NBT.A.3** Read, write, and compare decimals to thousandths.

a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.

b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

■ **5.NBT.A.4** Use place value understanding to round decimals to any place.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.A.1 – WALT recognize in a multi-digit number that a digit is 10 times the value of the digit to its right **5.NBT.A.1 – WALT** recognize in a multi-digit number that a digit is 1/10 the value of the digit to its left	Use place value blocks to represent the difference of 10 times and 1/10 of Use a place value chart to loop left (10 times) or right (1/10 of) Count the number of zeros in 10 times, 100 times, 1,000 times, etc tells you how many places to move to the left because the number is increasing. Similarly, the number of zeros in 110,1100,11,000, etc tells you how many place value positions to move to the right because the number is decreasing.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Use base 10 blocks for students to make observations between the place value positions. ● Recognize that each base 10 block represents a place value position. ● Identify the pattern/relationship that each place is 10 times larger when moving to the left and each place is 1/10 of the previous place when moving to the right. **Activity #2** Review the place value chart Have students list out the value of each place value position from the thousands to the thousandths and make observations of the relationships between the place value positions.	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

			• Lead discussion to focus on: moving to the left the value of the places are greater and moving to the right the value of the places is decreasing. • Then use "loops"/"hops" to show every time you move a place to the left, the places are getting 10 times larger each time. (So, if you hop 3 times to the left, the places are getting 1,000 times larger in value because x10 x10 x10.) • Similarly, every time you move a place to the right, the places are 1/10 of the previous places causing the places to decrease. (So if you hop two places to the right, the number will be 1/100 of the starting number in value because 1/10 x 1/10.) **Activity #3** Place Value Digit Card Slide- Have students create the digit card slide and move it to the right and left (depending on 10 times or 1/10 of). Discuss what happens to the value of a specific digit. **Activity #4** Place Value "Act It Out" - Have students arrange themselves in a place value chart taped on the group. Each student will hold up a card with a digit. Have the students move to the right and left (depending on 10 times or 1/10 of) and discuss what happens to the value of a specific digit. Resources: Prerequisite Place Value Part 1Interactive Video Prerequisite Place Value Part 2 Interactive Video Place Value Part 1 Interactive Video	

			Place Value Part 2 Interactive Video Ready Math Lesson 6 Teacher Ready Math Lesson 6 Student Ten Times as Much 1/10 of Center Activity Value of Digits Center Activity	
5.NBT.A.3a – WALT read decimals to thousandths using base-ten numerals, number names, and expanded form **5.NBT.A.3a – WALT** write decimals to thousandths using base-ten numerals, number names, and expanded form	Use a place value chart to place the digits of a number. Then, write the word form and expanded form of the number.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Base Ten Blocks Have students create decimals using base ten blocks ● model the decimal and draw the model ● verbalize what they have (& write down the word form) ● tell the value of each digit (& write down the expanded form). ● Rotate through creating/drawing, verbalizing/word form, and expanded form.) Resources: Understand and Model Decimals Interactive Video Read and Write Decimals Interactive Video Understand Decimal Place Value Part 1 Interactive Video Understand Decimal Place Value Part 2 Interactive Video Ready Math Lesson 8 Teacher Ready Math Lesson 8 Student	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

			Khan Academy decimal place value lessons IXL Grade 5 practice: IXL G.1 IXL G.3 IXL G.5 IXL G.16	
5.NBT.A.3b – WALT compare two decimals to thousandths based on place value understanding **5.NBT.A.3b – WALT** record comparisons of two decimals to thousandths using >, < or =	Align decimals vertically and compare each digit from left to right.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Use Base-ten blocks to represent two decimals. Have students make observations and discuss which decimal is greater. **Activity #2** Use a place-value chart to align the digits of a given decimal below the correct place-value positions. Then, place a second decimal below, placing each digit below the correct place value positions. Compare the corresponding digits from left to right to find which decimal is greater. **Activity #3** Use a number line to plot two decimals. Discuss where the decimals are located in relation to which decimal is greater. Resources: Compare Decimals Interactive Video Comparing Decimals up to Thousandths Interactive Video Ready Math Lesson 9 Teacher Ready Math Lesson 9 Student IXL Grade 5 practice: IXL X.2 IXL X.3 IXL X.4	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

5.NBT.A.4 – WALT round decimals to any place using place value understanding	Think of the two rounded options for a decimal (the decimal with the same digit that is to be rounded and the decimal with the digit that is to be rounded increased by 1.) Then, look at the digit to the right of the number to be rounded to determine whether to round up or round down. Look at the digit to the right of the place to be rounded and use "5 or above, give it a shove" and "4 or below, leave it alone".	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Use a number line to place a decimal. Have students observe how close the decimal is to the rounded options. **Activity #2** Have students list two decimals that a given decimal falls between by focusing on the digit to be rounded. Discuss which of the two decimals would be the best answer for the given decimal to round to. Students may look at the number to the right of the digit to be rounded to assist with rounding. **Activity #3** Students can use Base-ten blocks to model a decimal. Then, the students can model the decimal when rounded down and model the decimal when rounded up. Students can then compare the model of the original decimal to the models of the two rounded options and discuss which decimal is the better choice to round to. Resources: Round Decimals Interactive Video Round Decimals Interactive Practice Video IXL Grade 5 practice: IXL W.9	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

Benchmark Assessment 1

Benchmark Assessment	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
5.NBT.1 / 5.NBT.3a	Modifications per students' IEP

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.3b / 5.NBT.4	Modifications per students' IEP

Summative Assessments

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.1, 5.NBT.3, 5.NBT.4 standards assessment Sample 5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. Interactive Manipulation: Provide students with a set of multi-digit numbers and ask them to physically manipulate place value blocks to represent the value of each digit. Discuss how the value changes as they move left or right. Create Your Number: Have students create their own multi-digit numbers and then explain the value of each digit, emphasizing the relationships between adjacent digits. Digital Game: Use an interactive digital game or simulation where students can virtually move digits in a number to see the changes in value. 5.NBT.A.3 Read, write, and compare decimals to thousandths. Decimal Place Value Chart: Provide students with a place value chart for decimals to thousandths. Ask them to write specific decimals in different forms (standard, expanded, word form) on the chart. Decimal Sort: Give students a set of decimals and ask them to sort the decimals based on their values. Discuss their reasoning for the order.	Modifications per students' IEP

Real-world Application: Provide scenarios where students need to compare quantities represented by decimals (e.g., prices of items) and justify their comparisons using the symbols >, =, or <. 5.NBT.A.4 Use place value understanding to round decimals to any place. Rounding Relay: Organize a rounding relay race where students must round decimals to different places and pass the result to the next team member. Estimation Stations: Set up estimation stations with different items priced in decimals. Students round the prices to the nearest dollar and estimate the total cost. Explain Rounding Poster: Have students create a poster that visually explains the process of rounding decimals. Include examples and non-examples to showcase their understanding.	

Interdisciplinary Connections

Interdisciplinary Connections	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit I Module B

Unit Title: Mathematics – Operations on Decimals and Numerical Expressions – Unit 1 – Module B

Grade level: Grade 5 **Timeframe: 4 weeks**

Rationale

Grade 5 – Operations on Decimals and Numerical Expressions – Unit 1

A focus of the unit 1 is to understand place value to the thousandths place. This concept builds on students' grade 4 understandings of decimals to the hundredths place. After examining the quantitative relationships that exist between the digits in place value positions of a multi-digit number, learners apply their previous understandings of adding and subtracting to add and subtract decimals.

While learners read, write, and compare decimals to the thousandths place using base-ten numerals, number names, and expanded form, the focus of this unit is addition and subtraction of decimals to the hundredths place. The additional and supporting concepts and skills engage learners in analyzing the structure of numerical expressions. Learners evaluate and write numerical expressions with grouping symbols, write numerical expressions from a description, and interpret numerical expressions.

Note: Double asterisks (**) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

Guiding Questions

- How do you add and subtract decimals?
- How can you use modeling to demonstrate adding and subtracting decimals?
- What is the “order of operations,” and why is it important?
- How do you solve numerical expressions using the “order of operations”?
- How can you write numerical expressions to represent calculations?

Standards

Standards (Taught and Assessed):

- **5.NBT.B.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
- **5.OA.A.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- **5.OA.A.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.
- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- Self-Awareness
- Self-Management
- Social Awareness
- Relationship Skills
- Responsible Decision-Making

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.B.7 – WALT add and subtract decimals to hundredths using concrete models or drawings **5.NBT.B.7 – WALT** add and subtract decimals to hundredths using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction **5.NBT.B.7 – WALT** relate the strategy to the concrete model or	Draw a model of the decimal addends and combine them to find the sum. Regroup as needed. Draw a model of the minuend (original decimal). Then, cross out the quantity of the subtrahend (decimal you are taking away) and regroup as needed. Vertically stack the decimals according to each digit's place value position. Write in "place holder" zeros in empty place value positions. Then, add/subtract.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Add/Subtract Decimals using Base Ten Blocks with regrouping as needed- Have students record/draw models of the base 10 blocks as they solve. **Activity #2** Add/Subtract Decimals using a Place Value Chart- Have students stack the decimals vertically in a place value chart and then add/subtract. **Activity #3** Add/Subtract Prices and Budget from a Menu- ● Have students add/subtract prices from a budget using multiple approaches, specifically focused on properties.	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

drawing, and explain the reasoning used			• Have students present and discuss which approach would be most appropriate/easiest to solve each problem. Resources: Adding Decimals Practice Interactive Video Subtracting Decimals Practice Interactive Video Ready Math Lesson 10 Teacher Ready Math Lesson 10 Student Ready Math Lesson 11 Teacher Ready Math Lesson 11 Student Khan Academy Add Decimals lesson Khan Academy Subtract Decimals lesson IXL Grade 5 lessons: IXL H.1 IXL H.2 IXL H.3 IXL H.4	
5.OA.A.1 – WALT write simple numerical expressions from a description that record calculations with numbers **5.OA.A.2 – WALT** interpret numerical expressions to compare	Highlight keywords such as “each,” “every,” “times,” “more,” “less,” “spent,” “left over,” etc.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** With student suggestions, discuss/create a 5 column list of keywords in word problems that relate to the 4 operations (addition, subtraction, multiplication, and division). Also, discuss/list keywords that would elicit parentheses/grouping in a numerical expression. **Activity #2** Using example word problems, aid students in highlighting/breaking down each step of the word problems in order	Modifications per students’ IEP iReady Toolbox student-led activities RTI activities

their values without evaluating them			to then show how it contributes to creating a numerical expression. **Activity #3** Have students create their own word problems and the corresponding numerical expressions. Students can exchange word problems and try to come up with the correct numerical expressions. Resources: Write and Evaluate Expressions Interactive Video Ready Math Lesson 30 Teacher Ready Math Lesson 30 Student Less Than, Equal to, Greater Than Center Activity Make it True Center Activity Write a Numerical Expression Center Activity Find the Expression Center Activity Khan Academy Algebraic Thinking lessons IXL Grade 5 lessons: IXL O.3 IXL O.4	

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.7	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.OA.1, 5. OA.2	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.7 assessment 5.OA.1 / 2 assessment	Modifications per IEPs

Interdisciplinary Connections

Interdisciplinary Connections	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 2 Module A

Unit Title: Mathematics – Decimal Multiplication & Division and Volume Concepts – Unit 2 – Module A

Grade level: Grade 5 **Timeframe: 5 weeks**

Guiding Questions

What is a "power of ten"?
What happens to a number when it is multiplied by a "power of ten"?
What happens to a number when it is divided by a "power of ten"?
What are common measurement systems that I will come across in everyday life?
How can I convert customary units of length? What units are used?
How can I convert customary units of weight? What units are used?
How can I convert customary units of capacity? What units are used?
How can I convert metric units? What units are used?
How do I multiply two multi-digit whole numbers using the standard algorithm?
How can I use modeling and/or place value to multiply decimals?

Standards

Standards (Taught and Assessed):

- **5.NBT.A.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
- **5.M.A.1** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
- **5.NBT.B.5** With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
- **5.NBT.B.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
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- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.A.2 – WALT explain patterns in the number of zeros of the product when multiplying by powers of 10 **5.NBT.A.2 – WALT** explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 **5.NBT.A.2 – WALT** denote powers of 10 by using whole-number exponents	Recall that when multiplying by powers of 10, the exponent tells you how many times to move the decimal point to the right. Recall that when dividing by powers of 10, the exponent tells you how many times to move the decimal point to the left.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Make observations of multiplying by 10 repetitively in relation to the value of each place in a place value chart. Use Base-ten blocks to prove observations. Repeat for division. **Activity #2** Create paper accordions of powers of 10 exponents **Activity #3** Place Value Digit Card Slide- Revisit this activity from Unit 1A. However, now have students use this activity with decimals and multiplying/dividing by powers of 10 **Activity #4** Place Value "Act It Out" - Revisit this activity from Unit 1A. However, now	-Modifications per students' IEP -iReady Toolbox student-led activities -RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
			have students use this activity with decimals and multiplying/dividing by powers of 10 Resources: Prerequisite Place Value Part 1 Interactive Video Multiply and Divide Decimals by Powers of 10 Interactive Video Ready Math Lesson 7 Teacher Ready Math Lesson 7 Student Powers of 10 Vocabulary Math Center Activity Patterns of Zeros Center Activity Khan Academy Powers of Ten Lessons IXL Grade 5 Lessons: IXL C.3	

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.M.A.1 – WALT convert among different-sized standard measurement units within a given measurement system **5.M.A.1 – WALT** use conversions in solving multi-step, real world problems	Recall that when converting a smaller unit to a larger unit, you will divide because you are grouping small units together to make larger units. Recall that when converting a larger unit to a smaller unit, you will multiply because you are breaking the larger units into smaller units. For customary conversions of capacity, recall "Gallon Person" or Gallon City	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Customary Length - Introduce, discuss real-world items for each unit, and try conversions on real-word items/examples **Activity #2** Customary Weight - Introduce, discuss real-world items for each unit, and try conversions on real-word items/examples **Activity #3** Customary Capacity - Introduce the Gallon Person or Gallon City and try conversions on real-word items/examples **Activity #4** Metric System - Introduce, discuss real-world items for each unit, and try conversions on real-word items/examples	-Modifications per students' IEP -iReady Toolbox student-led activities -RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
			Resources: Prerequisite Express Measurements in Larger Units Interactive Video Ready Math Lesson 25 Teacher Ready Math Lesson 25 Student Converting Units Vocabulary Match Center Activity Khan Academy Converting Units of Measure IXL Grade 5 Lessons: IXL Z.2 IXL Z.3 IXL Z.4 IXL Z.13 IXL Z.14 IXL Z.15 IXL Z.22	

ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.

G&T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.
At Risk: Individualized as needed.
IEP/504: Modifications/Accommodations as stated in IEP.

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.B.5 – WALT With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.	Recall that when multiplying by a 2 or 3-digit number, think of your second factor in expanded form. Ex: 123 x 45 = You would multiply 123 x 5 and then 123 x 40. Add your two products. You can also use two different colors to connect the value of each digit in your second factor with the corresponding product.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Direct instruction using grid paper (If needed, students can use two different colors to show the two different products corresponding with the digits of the second factor) **Activity #2** Calculating Our School-wide Book Carbon Footprint Students will calculate the total number of pages in one of their school books (textbooks, ELA chapter books, etc) for their entire class (2-digit number) as well as all the students in the entire school (3-digit number). Rotate through calculating with various schoolbooks. Resources: Prerequisite Multiplying by One-Digit Numbers Part 2 Interactive Video	-Modifications per students' IEP -iReady Toolbox student-led activities -RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
			Prerequisite Multiply by Two-Digit Numbers Interactive Video Multiply Whole Number Interactive Video Ready Math Lesson 4 Student Ready Math Lesson 4 Teacher Equivalent Multiplication Expressions Center Activity Enrichment Designing a Home Khan Academy Multi-Digit Multiplication IXL Grade 5 lessons: D.5 D.6 D.7 D.8 D.9 D.10 D.11 D.12 D.14	

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.B.7 – WALT multiply decimals to hundredths using models or drawings **5.NBT.B.7 – WALT** multiply decimals to hundredths using strategies based on placevalue, properties of operations and/or the relationship between addition and subtraction **5.NBT.B.7 – WALT** relate the strategy to the concrete model or drawing, and explain the reasoning used	Recall that when multiplying by a decimal less than 1, recall that this will cause your product to be less than the other factor. Recall that when multiplying by a decimal greater than 1, recall that this will cause your product to be more than the other factor.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Multiply a Decimal and Whole # - Hands-on with Base-ten blocks and recording drawings in notebooks. **Activity #2** Multiply a Decimal by another Decimal using an Area Model -Hands-on with Base-ten blocks and recording drawing in notebooks. **Activity #3** Multiplying Decimals Review Show & Tell- • Review a variety of ways to multiply decimals - area model, distributive property, etc. • Students will choose a method to solve a multiplying decimals problem. • After, students will	-Modifications per students' IEP -iReady Toolbox student-led activities -RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
			"show" how modeling using Base-ten blocks and/or drawings lead to the same answer. • Last, students will "tell" how their model and/or drawing supports their work. Resources: Prerequisite Multiply by One Digit Part 1 Interactive Video Multiply a Decimal by a Whole Number Interactive Video Multiply a Decimal by a Decimal Interactive Video Ready Math Lesson 15 Student Ready Math Lesson 15 Teacher Center Activity Cover Up Multiply Enrichment Recycling Center	

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
			Ready Math Lesson 16 Student Ready Math Lesson 16 Teacher Center Activity Decimal Multiplication Slam Center Activity Represent Decimal Products Enrichment Designing a Garden Khan Academy Multiplying Decimals Unit IXL Grade 5 Lessons: CC.1 CC.2 CC.4 CC.5 CC.6 CC.7 DD.1 DD.2 DD.3 DD.4 DD.5 DD.6	

ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.

G&T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.
At Risk: Individualized as needed.
IEP/504: Modifications/Accommodations as stated in IEP.

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.2 , 5.OA.1 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Interactive Multiplication: Provide students with various numbers and ask them to multiply each by powers of 10. Have them observe and explain the patterns they notice in the number of zeros in the product. Decimal Point Dance: Create a visual representation where students can physically move decimal points when multiplying or dividing decimals by powers of 10. Discuss the patterns they observe. Exponent Exploration: Have students create a visual representation of the multiplication process using whole-number exponents to denote powers of 10. For example, explore 5×10^2 and discuss the patterns.	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.5. 5.NBT.7 (multiply decimals) 5.NBT.B.5 With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm. Algorithm Practice: Provide a set of multi-digit whole numbers and ask students to practice multiplying them using the standard algorithm. Encourage them to explain each step. Speed Challenge: Organize a multiplication speed challenge where students compete to solve multiplication problems accurately within a set time frame, reinforcing fluency. Real-world Application: Create word problems that require the use of multiplication with large numbers, such as finding the total cost of items when buying multiple quantities. 5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Concrete Models: Use base-ten blocks or other concrete models to demonstrate addition, subtraction, multiplication, and division of decimals. Discuss how the models represent place value. Drawing Strategies: Have students create visual representations (drawings) to illustrate their strategies for solving decimal operations problems. This could include using number lines or area models. Math Talk: Facilitate a math talk where students discuss the different strategies they use for decimal operations. Encourage them to explain the reasoning behind their chosen strategies.	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.NBT.2 assessment 5.OA.1 assessment 5.NBT.5 assessment 5.NBT.7 assessment (only multiply decimals) 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Digital Interactive Exploration: Use interactive online tools or apps that allow students to explore the patterns when multiplying or dividing by powers of 10. They can manipulate numbers and observe changes in real-time. Create a Pattern Poster: Have students create a poster showcasing the patterns they observe when multiplying or dividing by powers of 10. Include examples and explanations using whole-number exponents. Peer Teaching: Organize a peer-teaching activity where students explain the patterns to their classmates. Encourage them to use visuals and examples to enhance their explanations. 5.M.A.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems. Measurement Scavenger Hunt: Arrange a scavenger hunt where students measure various objects using different units. They must convert the measurements and present their findings. Student-Generated Problems: Ask students to create their own real-world problems that involve converting measurements. They can then exchange problems with classmates to solve. Math Journal Reflection:	Modifications per IEPs

Have students maintain a math journal where they reflect on their experiences converting measurements in everyday life. Encourage them to include challenges and successes. 5.NBT.B.5 With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm. Math Game: Develop a multiplication card game where students practice fluently multiplying multi-digit numbers. Each card represents a multiplication problem to solve. Real-life Scenario Project: Assign a project where students plan and budget a fictional event. They need to calculate costs and expenses, emphasizing the use of multiplication for budgeting. Interactive Whiteboard Activities: Utilize interactive whiteboard activities that engage students in solving multiplication problems collaboratively. Encourage discussion about different strategies used. 5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Math Manipulative Stations: Set up stations with various math manipulatives, such as base-ten blocks and fraction tiles, to represent decimal operations. Students rotate through the stations to solve problems. Role-play: Organize a role-playing activity where students take on the roles of shopkeepers and customers. They use decimals to simulate buying and selling transactions, applying the four operations. Math Reflection Journals:	

Implement a reflection journal where students write about their experiences and insights while solving decimal operations problems. Encourage them to discuss challenges and strategies.	

Interdisciplinary Connections

Interdisciplinary Connections	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

CAR Unit 2 Module B

Unit Title: Mathematics – Building Fractions & Decimal Notation – Unit 2 – Module B

Grade level: Grade 5 **Timeframe: 3 weeks**

Guiding Questions

How can I use modeling, arrays, and/or place value to divide multi-digit whole numbers?
How can I use modeling and/or place value to divide decimals?

Standards

Standards (Taught and Assessed):

- **5.NBT.B.6** Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- **5.NBT.B.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.B.6 – WALT find whole-number quotients with up to four-digit dividends and two-digit divisors using strategies based on place value **5.NBT.B.6 – WALT** find whole-number quotients with up to four-digit dividends and two-digit divisors using strategies	When dividing whole numbers using partial quotients, use compatible numbers and powers of 10 to help you get as close as possible to the dividend. Recall that "compatible numbers" are numbers that are easy to add, subtract, multiply, or divide mentally.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1:** Dividing Whole-numbers using Base-ten Blocks and Drawings **Activity #2:** Dividing Whole-numbers using Area Models/Rectangular Arrays **Activity #3**: Divide Whole-numbers using Partial Quotients **Activity #4:**	Modifications per students' IEP iReady Toolbox student led activities RTI activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
based on properties of operations or the relationship between multiplication and division **5.NBT.B.6 – WALT** illustrate and explain the division calculation by using equations, rectangular arrays, and/or area models			Division Show & Tell Students will present/"show" what strategies they used to solve various division problems and describe/"tell" how they procedurally solved their work. Resources: Prerequisite Divide by Whole Numbers, Part 2 Interactive Video Divide by Two Digit Numbers, Part 1 Interactive Video Divide by Two Digit Numbers, Part 2 Interactive Video	
			Ready Math Lesson 5 Teacher Ready Math Lesson 5 Student Division with Area Models Center Activity Khan Academy Multi Digit Multiplication IXL C.11 IXL C.15	

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NBT.B.7 – WALT divide decimals to hundredths using models or drawings **5.NBT.B.7 – WALT** divide decimals to hundredths using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction **5.NBT.B.7 – WALT** relate the strategy to the concrete model or drawing, and explain the reasoning used	Recall that when multiplying by a decimal less than 1, recall that this will cause your product to be less than the other factor. Recall that when multiplying by a decimal greater than 1, recall that this will cause your product to be more than the other factor.	Exit Slips Standards Assessment Toolbox assessment	Activity #1: Multiply a Decimal and Whole # - Hands-on with Base-ten blocks and recording drawings in notebooks. Activity #2: Multiply a Decimal by another Decimal using an Area Model. Activity #3: Hands-on with Base-ten blocks and recording drawing in notebooks. Activity #4: Multiplying Decimals Review Show & Tell- - Students will choose a method to solve a multiplying decimals problem - After, students will "show how modeling and/or using base ten blocks lead to the same answer. - Last, students will "tell" how their model or drawing supports their work. Resources: **Divide a Whole Number by a Decimal** **Divide a decimal by a decimal** **Divide a decimal by a whole number** **Ready Math Lesson 17 Teacher** **Ready Math Lesson 17 Student** **Cover Up Division Center Activity**	Modifications per students' IEP iReady Toolbox student led activities RTI activities

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.6	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NBT.7 (only division of decimals)	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.NBT.6 assessment 5.NBT.7 assessment (only division of decimals) 5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. Division Strategies Gallery Walk: Create a gallery walk where students showcase different strategies for solving division problems. Include examples using place value, properties of operations, and the relationship between multiplication and division. Interactive Digital Task: Utilize online platforms or apps that allow students to interactively solve division problems. They can choose different strategies and explain their reasoning. Math Talk Debate: Organize a math talk debate where students discuss and debate the most effective division strategy. Encourage them to defend their choices with reasoning. 5.NBT.B.7 Divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, relate the strategy to a written method and explain the reasoning used. Decimal Operation Challenge: Create a challenge with a series of decimal operations problems. Students work in teams to solve them, emphasizing the use of concrete models or drawings and explaining their strategies. Real-world Problem Solving: Provide real-world scenarios that involve dividing decimals. Students must choose the appropriate operation, model the problem, and explain their solution.	Modifications per IEPs

Interactive Math Journal: Have students maintain an interactive math journal where they document their thinking processes while solving decimal operations problems. Encourage them to include visual representations.	

Interdisciplinary Connections

Interdisciplinary Connections	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 2 Module C

Unit Title: Mathematics – Decimal Multiplication & Division and Volume Concepts – Unit 2 – Module C

Grade level: Grade 5 **Timeframe: 3 weeks**

Guiding Questions

What is the "volume" of a rectangular prism, and how do you find it?
How does finding the volume of a rectangular prism relate to finding the area of a rectangle?
What formula can you use to find the volume of a rectangular prism?
What label is used when finding the volume of a rectangular prism, and what does the label represent?

Standards

Standards (Taught and Assessed):

- **5.M.B.2** Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
  a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
  b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
- **5.M.B.3** Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and non-standard units.
- **5.M.B.4** Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
  a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
  b. Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.
  c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

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Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications**
5.M.B.2a – WALT a cube with side length 1 unit is called a "unit cube", has "one cubic unit" of volume, and can be used to measure volume **5.M.B.2b – WALT** a solid figure which can be packed without gaps or overlaps using (n) unit cubes has a volume of n cubic units	Recall that "unit" cubes are 1 unit long, one unit wide, and 1 unit tall, totaling to a volume of 1 cubic unit. Recall that volume has a label of "cubic" because volume is three-dimensional.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1:** ● Make Observations of Unit Cubes ● Measure the sides of the unit cubes to ensure same measurement ● Discuss relationship between area and volume ● Have students "fill" various opened rectangular prisms and tell the volume of the objects **Activity #2:** Unit Cubes Exploration ● Have students create various figures ● Observe/discuss solid figures with and without gaps ● Have students present their cubes, showing/explaining how many unit cubes they used ● Compare and Contrast the different ways students showed/explained how many unit cubes they used Resources: Understand and Measure Volume Interactive Video Ready Math Lesson 1 Student Ready Math Lesson 1 Teacher Build a Rectangular Prism Center Activity Khan Academy Volume Lessons IXL Grade 5 Lessons UU.2 UU.3 UU.4 UU.5 UU.7	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications**
5.M.B.3 – WALT measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and non-standard units **5.M.B.4a – WALT** Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. **WALT** Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. **5.M.B.4b – WALT** apply the formulas V = l × w × h	Recall the formula: Volume = Length x Width x Height	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Revisit from above - Have students "fill" various rectangular prisms with unit cubes to find the volume • Focus on filling a layer (area) and multiplying this by the amount of layers in an object (volume) • Discuss how the area formula is now being modified to make the volume formula **Activity #2** Same Volume, Different Shapes Have students make and present different shapes with the same number of unit cubes **Activity #3** Create the Dimensions Have students list possible dimensions for a given volume. **Activity #4** Volume of Everyday Boxes Have students measure and calculate the volume of various boxes Resources: Ready Math Lesson 2 Student Ready Math Lesson 2 Teacher	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
and V = B × h for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems			Same Volume, Different Shape Center Activity Find the Prism Center Activity Packing Boxes Enrichment Activity Khan Academy Volume Unit IXL DD. 15 IXL DD. 16 IXL DD. 17 IXL DD. 18	

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.M.B.2 5.M.B.3	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.M.B.4	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.M.B3 assessment 5.M.B4 assessment 5.M.B5 assessment 5.M.B.2 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. Create a "Solid Figure Museum": Have students create a museum display showcasing different solid figures, emphasizing the attribute of volume. Each display should include a description of the volume using unit cubes. Building with Unit Cubes: Provide students with unit cubes and challenge them to build various solid figures, counting the number of unit cubes used. Discuss how the volume relates to the number of cubes. Interactive Simulation: Use online simulations or virtual tools that allow students to interactively explore the concept of volume by manipulating virtual solid figures and unit cubes. 5.M.B.3 Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and non-standard units. Volume Measurement Stations: Set up stations with different objects and containers. Students measure the volume of each object using unit cubes, emphasizing different cubic units. Create a Volume Book: Have students create a book where they measure the volumes of various objects in their environment using different cubic units. Include sketches and explanations. Collaborative Volume Project: Assign a project where students collaborate to measure and compare the volumes of different objects using unit cubes and various cubic units.	Modifications per IEPs

5.M.B.4 Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume. a. Find the volume of a right rectangular prism with whole-number side lengths. Hands-on Exploration: Provide students with right rectangular prisms of different sizes. Have them pack each prism with unit cubes and discuss how the volume relates to the multiplication of side lengths. Visual Models: Use visual models, such as drawings or manipulatives, to represent the volume of rectangular prisms. Relate the volume to the product of the length, width, and height. Associative Property Illustration: Illustrate the associative property of multiplication by representing the volume of a rectangular prism in two ways: multiplying the height by the area of the base and multiplying the edge lengths. b. Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms. Formula Application Task: Present students with different rectangular prisms and ask them to calculate the volume using both formulas. Discuss when each formula is more convenient. Real-world Problem Solving: Create real-world scenarios where students need to find the volume of rectangular prisms using the given formulas. Emphasize the context of the problems. Formula Comparison: Engage students in discussions about the similarities and differences between the two volume formulas, relating them to real-world situations. c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms.	

Building Composite Figures: Challenge students to create composite figures using two non-overlapping rectangular prisms. Discuss how the volumes of the individual prisms add up to the total volume. Problem-Solving Scenarios: Present real-world problems that involve finding the volume of composite figures. Students must decompose the figures into non-overlapping prisms and add their volumes. Interactive Modeling: Use digital tools or physical models to represent composite figures. Allow students to manipulate and visualize how the volumes of the components add up.	

Interdisciplinary Connections

Interdisciplinary Connections	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 3 Module A

Unit Title: Mathematics – Fractions – Unit 3 – Module A

Grade level: Grade 5 **Timeframe: 3 weeks**

Guiding Questions

How do you add and subtract fractions with unlike denominators?
What are "common denominators," and why are they needed?
How do you find an equivalent fraction?
How can you use estimating to validate fraction sums and differences?
What are "benchmark fractions," and how can they be used to estimate fraction sums and differences?

Standards

Standards (Taught and Assessed):

- **5.NF.A.1** Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
- **5.NF.A.2** Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NF.A.1 – WALT when adding or subtracting fractions, replacing given fractions with equivalent fraction produces an equivalent sum or difference of fractions with like denominators **5.NF.A.1 – WALT** add and subtract fractions with unlike denominators, including mixed numbers, by replacing given	Recall that you cannot add or subtract fractions with unlike denominators without finding a common denominator because you would be adding or subtracting different size pieces. Recall that if a numerator is greater than the denominator, then you can rewrite your answer as a mixed number.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Fraction Action Game **Activity #2** Add/Subtract Fractions with Unlike Denominators using Modeling (Fraction Strips or Pattern Blocks) and Standard Algorithm **Activity #3** Add/Sub Mixed #s with Unlike Denominators using Modeling (Fraction Strips or Pattern Blocks) and Standard Algorithm **Activity #4** Subtract Mixed Numbers using	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
fractions with equivalent fraction			Regrouping/Renaming using modeling and Standard Algorithm Resources: Add Fractions Interactive Video Add Mixed Numbers Interactive Video Subtract Fractions Interactive Video Subtract Mixed Numbers Interactive Video Ready Math Lesson 12 Student Ready Math Lesson 12 Teacher Fraction Addition Center Activity Addition Grids Enrichment Activity Ready Math Lesson 13 Student Ready Math Lesson 13 Teacher Fraction Subtraction Center Activity Race Training Enrichment Khan Academy Adding and Subtracting Fractions Unit IXL Adding and Subtracting Fractions	
5.NF.A.2 – WALT solve word problems involving addition and subtraction of fractions including those	Highlight keywords, such as "leftover," "extra," "more," etc.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Add/Subtract Fractions with Unlike Denominators Task Cards Resources:	Modifications per students' IEP iReady Toolbox student-led activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
with unlike denominators referring to the same whole			Ready Math Lesson 14 Student Ready Math Lesson 14 Teacher Use Fraction Vocabulary Center Activity Baking Cookies Enrichment	RTI activities
5.NF.A.2 – WALT benchmark fractions and number sense can be used in estimating and assessing the reasonableness of answers to word problems involving addition and subtraction of fractions	Recall that you can estimate fractions to the benchmarks: 0, ¼, ½, ¾, or 1 by comparing the numerator to the denominator. Use benchmarks to help you estimate decimal sums and differences as a form of validating finding the exact sums or differences.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Model and Compare to Create Benchmarks- • Have students model each fraction in the add/subtract fraction problem. • Students should compare each fraction to fraction strips or pattern blocks of 0, ¼, ½, ¾, or 1. • Discuss which "benchmark" each fraction is most similar to and add/subtract **Activity #2** Estimate Fraction Sums and Differences Task Cards Resources: IXL Benchmark Fractions K.9 Benchmark Fractions Online Games	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NF.1	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NF.2	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NF.1 5.NF.2 Fraction Task Cards: Create task cards with different addition and subtraction problems involving fractions. Students can work independently or in pairs to solve the problems using various strategies. Fraction Manipulatives: Utilize fraction manipulatives, such as fraction bars or circles, to physically model addition and subtraction of fractions. This hands-on approach helps students visualize the operations. Error Analysis: Provide students with incorrect solutions to fraction problems and ask them to identify the errors. This activity helps reinforce understanding and allows for discussions about common misconceptions.	Modifications per IEPs

Interdisciplinary Connections

Interdisciplinary Connections	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 3 Module B

Unit Title: Mathematics – Fractions – Unit 3 – Module B

Grade level: Grade 5 **Timeframe: 4 weeks**

Guiding Questions

How do you multiply a fraction and whole-number?
How can you use modeling to multiply a fraction and a whole-number?
How do you multiply a fraction by a fraction?
How can you use modeling to multiply a fraction by a fraction?
How does multiplying by a fraction less than one, a fraction greater than one, and a fraction equal to one affect a product? What operation does a fraction represent?
How can you use fractions to represent division problems?
How do you model and solve the division of a unit fraction by a non-zero whole-number?
How do you model and solve the division of a non-zero whole-number by a unit fraction?

Standards

Standards (Taught and Assessed):

- **5.NF.B.3** Interpret a fraction as division of the numerator by the denominator (i.e.,). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
  For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4 . If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?

  Climate Change Example: To examine the impact climate change has on agriculture, students may solve word problems about the reduced yields of staple crops and their distribution that involve division of whole numbers and lead to answers in the form of fractions.
- **5.NF.B.4** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
  a. Interpret the product (a/b) × q as a part of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)
  b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
- **5.NF.B.5** Interpret multiplication as scaling (resizing), by:

a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n × a)/(n × b) to the effect of multiplying a/b by 1.

■ **5.NF.B.6** Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

■ **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.

b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.

c.**Solve** real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share ½ lb. of chocolate equally? How many ⅓ cup servings are in 2 cups of raisins?

Climate Change Example: To examine the impact climate change has on agriculture, students may solve real-world problems about the reduced yields of staple crops and their distribution that involve division of unit fractions by non-zero whole numbers and/or division of whole numbers by unit fractions.

□ **5.DL.A.1** Understand how different visualizations can highlight different aspects of data. Ask questions and interpret data visualizations to describe and analyze patterns.

□ **5.DL.A.2** Develop strategies to collect, organize and represent data of various types and from various sources. Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation).

□ **5.DL.A.3** Collect and clean data to be analyzable (e.g., make sure each entry is formatted correctly, deal with missing or incomplete data).

□ **5.DL.A.4** Using appropriate visualizations (i.e. double line plot, double bar graph), analyze data across samples.

□ **5.DL.B.5** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
5.NF.B.4 **WALT** apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction **5.NF.B.4a**	Recall that when multiplying a fraction by a whole number, you can multiply the numerator times the whole number and then divide this product by the denominator to get the answer. Recall that when multiplying a fraction by a fraction, you can multiply the two numerators and multiply the two denominators. You do not need to find a common	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Multiply Whole-numbers and Fractions using Repeated Modeling: • Model using pattern blocks • Drawing models • Standard algorithm • Discuss how the models relate to the standard algorithm **Activity #2** Multiply Whole-numbers and Fractions using Arrays: • Model using arrays of counters	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
WALT interpret the product (a/b) × q as a part of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b ** **WALT** interpret the product of a fraction and a fraction as (a/b) × (c/d) = ac/bd **	denominator like you need to with adding/subtraction fractions.		• Drawing arrays • Standard Algorithm • Discuss how the arrays relate to the standard algorithm **Activity #3** Multiply Fractions using Two Color Drawings • Modeling using 2 color drawings • Standard Algorithm • Discuss how the drawings relate to the standard algorithm Resources: Multiply a Whole Number by a Unit Fraction Interactive Video Multiply a Whole Number by a Fraction Interactive Video Multiply a Unit Fraction by a Unit Fraction Interactive Video Multiply a Fraction by a Fraction Interactive Video Ready Math Lesson 19 Student Ready Math Lesson 19 Teacher Fraction Area Center Activity Flower Garden Enrichment Ready Math Lesson 20 Student Ready Math Lesson 20 Teacher Tile Dimensions Center Activity Colorful Quilts Enrichment	**IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
5.NF.B.4b **WALT** tile a rectangle using the appropriate fractional unit square in order to find the area of a rectangle that has fractional side lengths **5.NF.B.4b. – WALT** show that the area found by tiling would be that same as multiplying the side lengths **5.NF.B.4b. – WALT** multiply fractional side lengths to find areas of rectangles **5.NF.B.4b. – WALT** represent fraction	Recall that Area = Length times Width	Exit Slips Standards Assessment Toolbox assessment	Khan Academy Multiplying Fractions Unit IXL Multiplying Fractions M 1- M 20 **Activity #1** Revisit Activity #3 from above (Multiply Fractions using Two Color Drawings) **Activity #2** Area with Fractions Task Cards Resources: Khan Academy Finding Area of Rectangles with Fractional Lengths IXL DD.6	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
products as rectangular areas				**At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NF.B.5a. – WALT interpret multiplication as scaling (resizing) by comparing the size of a product to the size of one factor without performing the multiplication **5.NF.B.5b. – WALT** explain why multiplying a given number by a fraction greater than one results in a product greater than the given number and why multiplying a given number by a fraction less than one results in a product smaller than the given number	Multiplying by a fraction less than 1 will reduce your product. Multiplying by a fraction greater than 1 will make your product more extraordinary.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Comparing the Resizing of Pictures Compare the two scenarios of taking ½ of a picture versus taking 1½ of a picture. • Class discussion of what they think will happen • Solve the two scenarios mathematically • Demonstrate the two scenarios using models to support the math • (Repeat with multiple scenarios) **Activity #2** Compare Edited Pictures Revisit Activity #1 above, but now compare the model of the newly resized photo to the original, untouched photo. Repeat with multiple scenarios. Resources: Understand Multiplication as Scaling Interactive Video Ready Math Lesson 21 Student	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
			Ready Math Lesson 21 Teacher Multiplication as Scaling Center Activity Stretching and Shrinking Enrichment Khan Academy Multiplication as Scaling IXL M.23 IXL M.24 IXL M.25	

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
5.NF.B.5b. – WALT multiplying a fraction a/b by n/n (a/b = (n × a)/(n × b)) has the same effect as multiplying a/b by 1 and creates an equivalent fraction	Recall that when you have the same numerator and denominator in a fraction, this equals 1 whole because any number divided by itself equals 1.	Exit Slips Standards Assessment Toolbox assessmen	**Activity #1** Solve & Observe- (Observations of multiple problems that require a/b x n/n = a/b x 1) • Provide multiple versions of the problem stated above and have students solve all of them. • Have students make observations after solving all of the problems mathematically. • Class discussion of observations - leading to n/n really is just n divided by n which would always equal 1. •Knowing the Identity Property of Multiplication, it would not change the value and thus simply create an equivalent fraction Resources: IXL K.4	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
5.NF.B.6 – WALT solve real world problems involving multiplication of fractions and mixed numbers	Recall that the keyword "of" means multiply with fractions.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Adjust Recipes: Have students "adjust" the ingredient quantities in recipes by "halving" a recipe and also by doing 1½ times as much of a recipe. Repeat with other fractions/mixed #s. Resources: Ready Math Lesson 22 Student Ready Math Lesson 22 Teacher Write a Word Problem Center Activity Real-World Multiplication Situations Center Activity Plant Growth Enrichment Activity	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.NF.B.3 **WALT** Interpret a fraction as division of the numerator by the denominator (i.e.,).	Recall that the fraction bar means to divide. Thus, a fraction could be thought of as the numerator divided by the denominator.	Exit Slips Standards Assessment Toolbox	**Activity #1** Fractions as Division Hands-on Have students act out scenarios in which they are splitting an object among a certain number of students	Modifications per students' IEP iReady Toolbox student-led activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
WALT Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. Climate Change Example: To examine the impact climate change has on agriculture, students may solve word problems about the reduced yields of staple crops and their distribution that involve division of whole numbers and lead to answers in the form of fractions.	Recall that when writing a fraction as division to represent a story, the object you are breaking apart is the numerator. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4 . If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?	assessment	• Have students break apart the objects (or use pattern blocks to represent the objects) and draw fractional models of what they did • Discuss what numerical expression is being created • Solve for the answer • Discuss how the expression can be written as a fraction **Activity #2** Create Your Own Word Problems Have students create word problem stories to support specific fractions • Create word problems • Draw/solve the word problem scenarios • Discuss the answers and how they support the fraction as division problems that were given to them • Solve each other's word problems Resources: Understand Fractions as Division Interactive Video	RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

5.NF.B.7a. – WALT compute and interpret the quotients of a unit fraction by a non-zero whole number ** **5.NF.B.7b – WALT** compute and interpret the quotients of a non-zero whole number by a unit fraction ** **5.NF.B.7c**  **WALT** solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, by using visual fraction models and equations to represent the problem.	Draw models to solve dividing Whole-numbers and unit fractions. Recall that "share equally," "split equally," "cut into pieces," with fractions means to divide. **5.NF.B.7c** For example, how much chocolate will each person get if 3 people share ½ lb. of chocolate equally? How many ⅓ cup servings are in 2 cups of raisins?  Climate Change Example: To examine the impact climate change has on agriculture, students may solve real-world problems about the reduced yields of staple crops and their distribution that involve division of unit fractions by non-zero whole numbers and/or division of whole numbers by unit fractions.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Dividing Whole-numbers by Unit Fractions Modeling with Fraction Strips • Model using fraction strips • Drawing models • Standard algorithm • Discuss how the models relate to the standard algorithm **Activity #2** Divide Unit Fractions by Whole-numbers Modeling with Fraction Strips • Model using fraction strips • Drawing models • Standard algorithm • Discuss how the models relate to the standard algorithm **Activity #3** Create Your Own Word Problems- Have students create word problem stories to support dividing whole- numbers and fractions • Create word problems • Draw/solve the word problem scenarios • Solve each other's word problems Resources: Divide a Whole Number by a Unit Fraction Interactive Video Divide a Unit Number by a Whole Number Interactive Video Ready Math Lesson 23 Student	Modifications per students' IEP iReady Toolbox student-led activities RTI activities **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
			Ready Math Lesson 23 Teacher Quotients Greater than 1 or Less Than 1 Center Activity Mystery Equation Enrichment Activity Resources: Khan Academy Dividing Unit Fractions by Whole Numbers Unit Khan Academy Dividing Whole Numbers by Unit Fractions Unit IXL N.1 IXL N.2 IXL N.3 IXL N.4 IXL N.5 IXL N.6 IXL N.7	

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
☐ **5.DL.A.1** Understand how different visualizations can highlight different aspects of data. Ask questions and interpret data visualizations to describe and analyze patterns. ☐ **5.DL.A.2** Develop strategies to collect, organize and represent data of various types and from various sources. Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation). ☐ **5.DL.A.3** Collect and clean data to be analyzable (e.g., make sure each entry is formatted correctly, deal with missing or incomplete data). ☐ **5.DL.A.4** Using appropriate visualizations (i.e. double line plot, double bar graph), analyze data across samples.	Introduce students to different types of visualizations such as bar graphs, line graphs, pie charts, histograms, scatter plots, and heat maps. Explain the unique features and purposes of each type of visualization. **Introduction**: Discuss what data is and why it's important. Show examples of data in everyday life. **Presentation**: Have students present their findings using digital tools. **Slide Presentations**: Guide students in using PowerPoint, Google Slides, or Prezi to create presentations of their data. Emphasize clarity, visual appeal, and how to highlight key data points. **Reflection**: Discuss what they learned about data collection, organization, and representation. By incorporating these strategies, students will develop a comprehensive understanding of data handling and the skills to communicate their findings effectively using digital tools.	Exit Slips Standards Assessment Toolbox assessment	**iReady Interactive Practice & iXL lessons** **<u>Survey Analysis</u> Objective: Analyze survey data using double bar graphs.** **Activity**: Conduct a survey on a topic of interest (e.g., favorite fruits, preferred leisure activities) among students. Categorize the responses by gender, age group, or another demographic. Students create double bar graphs to compare the survey results across different demographics. **<u>Weather Data Comparison</u> Objective: Use double line plots to compare weather data from different cities.** **Activity:** Collect historical weather data (temperature, precipitation) from two different cities over the same period. Have students create double line plots to compare the weather patterns of the two cities. Discuss the similarities and differences in weather patterns. **<u>Class Test Scores Analysis</u> Objective: Analyze and compare test scores using double bar graphs.** **Activity:** Gather test scores from two different subjects for the same group of students. Students create double bar graphs to compare the scores in the two subjects. Discuss factors that might contribute to the differences in performance.	**ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
5.DL.B.5 – WALT make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) **5.DL.B.5 – WALT** use operations with fractions to solve problems involving information presented in line plots	Recall that each "X" on the line plot has value attached to it. So, when you have fractions on a line plot and you are calculating a total of one particular fraction listed on the line plot, you are repetitively adding that fraction - not simply counting the number of Xs.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Create a Line Plot using Varying Lengths of String • Give each student a length of string under an inch (designate 4 fractional sizes under an inch) • Create a line plot with the students • Have the students make various calculations such as average length, total length for a specific measurement, etc. Resources: Ready Math Lesson 27 Student Ready Math Lesson 27 Teacher Line Plot Vocabulary Match Center Activity Fractions as Data Center Activity Weighing Pumpkins Enrichment Activity Khan Academy Line Plots IXL V.9 IXL V.10 IXL V.11	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NF.4	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.NF.5 , 5.DL.2	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.NF.4 assessment 5.NF.5 assessment 5.DL.2 assessment 5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product (a/b) × q as a part of a partition of q into b equal parts. Fraction Partitioning Activity: Have students use manipulatives or drawings to visually represent the multiplication (a/b) × q as a partition of q into b equal parts. Discuss their visual models and how they arrive at the product. Story Context Creation: Challenge students to create story contexts for given multiplication expressions involving fractions and whole numbers. This helps them connect the operation to real-world situations. Interactive Simulation: Use an interactive simulation or app that allows students to dynamically explore the concept of multiplying a fraction by a whole number through partitioning. b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths. Hands-on Tiling Activity: Provide students with square tiles or grid paper and ask them to tile rectangles with fractional side lengths. Relate the area of the rectangle to the multiplication of the side lengths. Interactive Whiteboard Modeling: Use an interactive whiteboard to model the tiling process for finding the area of a rectangle with fractional side lengths. Discuss how this process relates to multiplication. Real-world Application Project: Assign a project where students measure and draw rectangles representing real-world objects, determining the area by tiling with unit squares of appropriate unit fraction side lengths.	Modifications per IEPs

5.NF.B.5 Interpret multiplication as scaling (resizing). a. Comparing the size of a product to the size of one factor. Size Comparison Activity: Provide various multiplication expressions and ask students to compare the size of the product to the size of one factor without performing the multiplication. Discuss patterns and observations. Visual Scaling Illustration: Use visual scaling illustrations to demonstrate how multiplication can scale the size of a quantity. Relate this to the concept of resizing without calculating the actual product. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number. Story Explanation: Have students create stories or scenarios that explain why multiplying a number by a fraction greater than 1 results in a product greater than the original number. Interactive Modeling: Use digital tools that allow students to dynamically model the multiplication of a number by a fraction greater than 1. Discuss the changes in size. c. Solve real-world problems involving multiplication of fractions and mixed numbers. Real-world Multiplication Problems: Present students with real-world problems that involve the multiplication of fractions and mixed numbers. Encourage them to use equations or visual fraction models to represent the problems. Application Project: Assign a project where students choose a real-world scenario, model it using multiplication of fractions, and present their solutions with explanations. 5.NF.B.6 Solve real-world problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.	

Scenario-based Division Problems: Create scenarios that involve the division of whole numbers, leading to answers in the form of fractions or mixed numbers. Ask students to use visual fraction models or equations to represent the problems. Modeling with Equations: Provide equations representing division problems and ask students to interpret them as real-world situations. Encourage them to use equations and visual models to solve the problems. Collaborative Problem Solving: Have students work in groups to solve real-world problems involving division, discussing their strategies and solutions with their peers. 5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. Story Context Creation: Ask students to create story contexts for division problems involving a unit fraction divided by a non-zero whole number. Use visual fraction models to show the quotient. Interactive Fraction Division: Use interactive tools that allow students to dynamically explore and compute the division of a unit fraction by a non-zero whole number. Discuss the relationship between multiplication and division. b. Interpret division of a whole number by a unit fraction, and compute such quotients. Visual Fraction Models: Provide visual fraction models to represent the division of a whole number by a unit fraction. Discuss how the quotient is related to the original whole number. Story Contexts:	

Create story contexts for division problems involving a whole number divided by a unit fraction. Encourage students to use visual models and equations to explain the division process. c. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions. Real-world Fraction Division Problems: Present real-world problems that involve the division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions. Ask students to represent these problems using visual models or equations. Application Project: Assign a project where students choose a real-world scenario, model it using division of unit fractions, and present their solutions with explanations.	

Interdisciplinary Connections

Interdisciplinary Connections	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 4 Module A

Unit Title: Mathematics – The Coordinate System and Classifying Two-Dimensional Figures
Unit 4 –Module A

Grade level: Grade 5 **Timeframe: 2 weeks**

Guiding Questions

- What is a "coordinate system"?
- What is an "ordered pair," and how does it aid in plotting a point?
- What do the x-coordinate and y-coordinate represent in relation to the x-axis and y-axis?
- What is the "origin," and why is it important?
- How can you use ordered pairs and plotting points to represent real world data?
- How can you represent two patterns by using ordered pairs and points?

Standards

Standards (Taught and Assessed):

- **5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
- **5.G.A.2** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.

Climate Change Example: Students may represent real world problems about the reduced yields of staple crops by graphing points in the first quadrant of the coordinate plane; Students may interpret coordinate values of points in the agricultural context.

- **5.OA.B.3** Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.
- **5.O.A.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- **5.OA.A.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating

Key: Major Cluster Supporting Cluster Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.

- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.G.A.1 - WALT a coordinate system is defined by a pair of perpendicular lines called axes with the intersection of the lines, the origin, occurring at 0 on each line **5.G.A.1 - WALT** a given point in the coordinate plane is located using an ordered pair of numbers called coordinates **5.G.A.1 - WALT** the first number in an ordered pair indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis. **5.G.A.1 - WALT** the names of the two axes and the coordinates correspond	Recall that the x-coordinate comes first before the y-coordinate in an ordered pair similar to the letter "x" coming before the letter "y" alphabetically. Recall that to plot a point, you must move across the x-axis first and then up the y-axis second (think alphabetically).	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Direct Instruction of Identifying Key Points of a Coordinate Plane Have students look at a sample graph and highlight/label the following: • X-axis • Y-axis • X-coordinate • Y-coordinate • Origin • Ordered Pair • Point **Activity #2** Battleship Activity **Activity #3** Mystery Picture Activity Resources: Understand the Coordinate Plane Interactive Video Ready Math Lesson 31 Student Ready Math Lesson 31 Teacher Shapes on a Coordinate Plane Center Activity Find the Point Center Activity Khan Academy Coordinate Plane Unit	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
(e.g., x-axis and x-coordinate, y-axis and y-coordinate)			5th Grade IXL Lessons IXL T.1 IXL T.2 IXL T.3 IXL T.4 IXL T.7 IXL T.8	
5.G.A.2 **WALT** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.	When creating ordered pairs from a table, remember that the x coordinate is first and the y coordinate is second. Climate Change Example: Students may represent real world problems about the reduced yields of staple crops by graphing points in the first quadrant of the coordinate plane; Students may interpret coordinate values of points in the agricultural context.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Relating Points to the Real World-Meerkat Activity-Illustrative Math **Activity #2** Create a Line Graph by Polling Class & Discuss Meaning of the Points Resources: Represent Problems in the Coordinate Plane Interactive Video Ready Math Lesson 32 Student Ready Math Lesson 32 Teacher	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.OA.B.3 – WALT generate two numerical patterns using two given rules and identify relationships between corresponding terms in the patterns **5.OA.B.3 – WALT** form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane	Look at two consecutive terms and compare their values. Repeat this until you find a pattern. Test the pattern/rule on consecutive terms to ensure the pattern/rule is correct. The first pattern will be your x coordinates and the second pattern will be your y-coordinates.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Sidewalk Patterns-Illustrative Math **Activity #2:** Create a Table- • Have students create a table of two patterns using two rules • Create order pairs from the table • Plot points on a coordinate plane Resources: Ready Math Lesson 33 Student Ready Math Lesson 33 Teacher Plot Points Center Activity Class Fundraiser Enrichment Khan Academy Number Patterns Unit 5th Grade IXL Lessons IXL S.2 IXL U.9	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.O.A.1 – WALT evaluate numerical expressions with parentheses, brackets, and braces, including expressions containing fractions and decimals) **5.O.A.1 – WALT** use parentheses, brackets, or braces to group parts of a numerical expression	Use "PEMDAS" or "GEMDAS" to solve numerical expressions. Cross out each letter of PEMDAS as each step is completed. Highlight or underline each part of the expression that is being solved at each step. When you have groups within groups, solve the smallest group first and work your way out to the largest group.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Solve Numerical Expressions involving Decimals **Activity #2** Solve Numerical Expressions involving Fractions Resources: Ready Math Lesson 30 Student Ready Math Lesson 30 Teacher Khan Academy Translation Expressions with Parentheses IXL Grade 5 Lessons IXL O.5 IXL O.6 IXL O.7	Modifications per students' IEP iReady Toolbox student-led activities RTI activities
5.OA.A.2 – WALT write simple numerical expressions from a description that record calculations with numbers **5.OA.A.2 – WALT** interpret numerical expressions to compare	Highlight keywords such as "each," "every," "times," "more," "less," "spent," "left over," etc.	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Using example word problems that involve decimals, aid students in highlighting/breaking down each step of the word problems in order to then show how it contributes to creating a numerical expression. **Activity #2** Using example word problems that involve fractions, aid students in highlighting/breaking down each step of	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
their values without evaluating them			the word problems in order to then show how it contributes to creating a numerical expression. **Activity #3** Have students create their own word problems (involving decimals and fractions) and the corresponding numerical expressions. Students can exchange word problems and try to come up with the correct numerical expressions. Resources: IXL Grade 5 Lessons IXL O.3 IXL O.4	

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.G.1 5.G.2	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.OA.3	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.G.1 assessment 5.G.2 assessment 5.OA.3 assessment 5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system. Coordinate System Quiz: Prepare a quiz with questions that assess students' understanding of coordinate systems. Include questions about the relationship between axes and coordinates, as well as plotting points. Coordinate System Performance Task: Create a performance task where students must draw a coordinate system, label the axes, and plot given points. Include questions that require them to explain the process. Coordinate System Problem Solving: Present real-world problems that involve coordinate systems. Students must interpret the situation, identify coordinates, and solve the problems using the coordinate plane. 5.G.A.2 Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane. Graphing Project Assessment: Assess a graphing project where students represent a real-world scenario by graphing points in the first quadrant. Evaluate their ability to choose appropriate coordinates and accurately plot points. Coordinate Art Assessment: Evaluate students' coordinate art projects based on creativity, precision in plotting points, and adherence to provided rules or equations. Graphing Accuracy Quiz: Administer a quiz where students are given a set of coordinates and must accurately plot the points on the coordinate plane. Assess their ability to read and use coordinates effectively. 5.OA.B.3 Generate two numerical patterns using two given rules. Pattern Relationship Analysis:	Modifications per IEPs

Provide students with two numerical patterns generated by given rules. Ask them to analyze and describe the relationships between corresponding terms in the patterns. Pattern Graphing Task: Task students with generating two numerical patterns using given rules. Instruct them to form ordered pairs, graph the points on a coordinate plane, and interpret the graphical representation. Pattern Rule Explanation: Assign a written task where students explain why the terms in one sequence are related to the corresponding terms in another sequence based on given rules. 5.O.A.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. Expression Evaluation Test: Prepare a test with various numerical expressions that include parentheses, brackets, or braces. Students must evaluate the expressions and demonstrate their understanding of the symbols. Expression Building Assessment: Provide students with partial numerical expressions and ask them to complete and evaluate the expressions using parentheses, brackets, or braces. Symbolic Expression Explanation: Assign a task where students explain the purpose of using parentheses, brackets, or braces in a given numerical expression. Evaluate their ability to articulate the meaning of these symbols.	

Interdisciplinary Connections

Interdisciplinary Connections	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions

Unit 4 Module B

Unit Title: Mathematics – The Coordinate System and Classifying two Dimensional Figures
Unit 4 – Module B

Grade level: Grade 5 **Timeframe: 2 weeks**

Guiding Questions

What does the word "classify" mean, and how is it helpful when looking at two-dimensional figures?
How do the number of the sides, vertices, and angles of a two-dimensional figure aid in classifying it?
How can identifying parallel lines, perpendicular lines, congruent sides, congruent angles, and right angles aid in classifying quadrilaterals? How can identifying angles and congruent sides aid in classifying triangles?

Standards

Standards (Taught and Assessed):

- **5.G.B.3** Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- **5.G.B.4**. Classify two-dimensional figures in a hierarchy based on properties.

Key: ■ Major Cluster ▢ Supporting Cluster ◎ Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

Social-Emotional Learning Competencies

- PDF Online

Instructional Plan

Pre-Assessment and Reflection

Pre-Assessment	**Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**
Standards Pre-Assessment	Tiered Instruction - 3 levels Modifications per students' IEPs RTI

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT **We are learning to/that**	**Student Strategies**	**Formative Assessment**	**Activities and Resources**	**Modifications** **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
5.G.B.3 – WALT the attributes belonging to a category of two-dimensional figures also belong to all subcategories **5.G.B.3 – WALT** classify two-dimensional figures in a hierarchy based on properties	Recall that two-dimensional figures each have the same amount of sides, angles, and vertices. Count up the sides, angles, and/or vertices to identify two dimensional figures. Look for parallel lines, perpendicular lines, right angles, obtuse angles, congruent sides,	Exit Slips Standards Assessment Toolbox assessment	**Activity #1** Make Observations & Create a Chart of Two-dimensional Figures • Drawing of Polygon • Polygon name • # of sides • # of angles • # of vertices **Activity #2** Polygon Scavenger Hunt - Identify polygons in the real world **Activity #3**	Modifications per students' IEP iReady Toolbox student-led activities RTI activities

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
	congruent angles, etc to help classify two-dimensional figures. Use matching tick marks to identify congruent sides and angles.		Create a Hierarchy Flowchart from Observations of the Relationship between Two dimensional Figures **Activity #4** Make Observations & Classify Triangles • Drawing of Triangles • Name of Triangle • Any congruent sides/angles? • Any right or obtuse angles? **Activity #5** Triangle Scavenger Hunt Identify triangles in the real world Resources: Identifying Two-Dimensional Figures Interactive Video Ready Math Lesson 28 Student Ready Math Lesson 28 Teacher Classify Quadrilaterals Center Activity Classify Triangles Center Activity	

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications **ELL:** Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. **G&T:** Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. **At Risk:** Individualized as needed. **IEP/504:** Modifications/Accommodations as stated in IEP.
			Making New Shapes Enrichment	

Benchmark Assessment 1

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.G.3	Modifications per IEPs

Benchmark Assessment 2

Benchmark Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
5.G.4	Modifications per IEPs

Summative Assessments (add rows as needed)

Summative Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

5.G.3 assessment 5.G.4 assessment 5.G.B.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. Attribute Matching Task: Present a set of two-dimensional figures and a list of attributes. Ask students to match each figure with the corresponding attributes, emphasizing the hierarchical relationships between categories and subcategories. Hierarchical Sorting Activity: Provide students with a collection of shapes and ask them to sort the shapes into categories and subcategories based on shared attributes. Discuss how the attributes of the main category extend to all subcategories. Shape Characteristics Discussion: Facilitate a class discussion where students identify and discuss the shared attributes within categories and subcategories of two-dimensional figures. Encourage them to justify their reasoning. 5.G.B.4 Classify two-dimensional figures in a hierarchy based on properties. Shape Hierarchy Diagram: Ask students to create a visual diagram or graphic organizer that represents a hierarchy of two-dimensional figures based on their properties. Include categories, subcategories, and the relationships between them. Sort and Justify Task: Provide students with a set of figures and ask them to classify and justify the classifications based on specific properties. This could involve writing explanations or presenting their reasoning to the class. Real-world Classification Project:	Modifications per IEPs

Assign a project where students identify and classify two-dimensional figures from real-world scenarios. They should create a hierarchy based on properties and explain their reasoning. Hierarchical Classification Quiz: Prepare a quiz with questions that assess students' ability to classify two-dimensional figures in a hierarchical manner. Include scenarios where they need to apply their understanding of properties.	

Interdisciplinary Connections

Interdisciplinary Connections	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
Open-ended and Extended Constructed Responses - Students will be given real-world mathematical scenarios in which they have to analyze, solve, and provide written explanations to support their mathematical reasoning.	Modifications per students' IEP Tiered questions