2018/2019

RICHWOODS R-VII SCHOOL DISTRICT

MATH UNITS OF INSTRUCTION

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Represent, Count, and Write Numbers 0 to 5
MLS: K.NS.A.4- Read and write numerals and represent a number of objects from 0 to 20. K.NS.B.1- Say the number names when counting objects, in the standard order, pairing each object with one and only one number names and each number names with one and only one object. K.NS.B.2- Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. K.NS.B.3-Demonstrate that each successive number name refers to a quantity that is one larger than the previous number. K.NS.B.4- Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns. K.NS.B.5- Demonstrate that a number can be used to represent "how many" are in a set.	**Priority Standards:** Read and write numerals and represent a number of objects from 0 to 20. Say the number names when counting objects, in the standard order, and demonstrate that the last number name said tells the number of objects counted.	**Supporting Standards:** Use literature to preview number concepts 1-5. Model and count up to 5 with objects. Model and count up to 5 objects with a number name and a written numeral. Use objects or drawings to decompose 5 into pairs in more than one way. Know that each successive number refers to a quantity that is one larger. Solve problems by using the strategy *make a model.* Represent 0 objects with a number name and a written numeral.

Prerequisite Skills:	Duration:	Essential Questions:
Holding a pencil Rote counting	2 weeks	How can you show and count 0 to 5 with objects? How can you count and write 0 to 5 with words and numbers? How can you use two sets of objects to show 5 in more than one way? How do you know that the order of numbers is the same as a set of objects that is one larger? How can you solve problems using the strategy *make a model*?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: zero one two three four five match pairs and larger fewer more	Enrichment Activities and Resources: Enrichment activities during RtI time Differentiated games/activities in math work stations	Reteach Activities and Resources: Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Compare Numbers to 5
MLS: K.NS.C.1- Compare two or more sets of objects and identify which set is equal to, more than or less than the other. K.NS.C.2- Compare two numerals, between 1 and 10, and determine which is more than or less than the other.	**Priority Standards:** Compare two numerals, between 1 and 10, and determine which is more than or less than the other.	**Supporting Standards:** Use matching and counting strategies to compare sets with the same number of objects. Use matching and counting strategies to compare sets when the number of objects in one set is greater than or less than the number of objects in the other set. Make a model to solve problems using a matching strategy. Use a counting strategy to compare sets of objects.

Prerequisite Skills:	Duration:	Essential Questions:
Counting objects to 5 Writing numerals to 5	2 weeks	How can you use matching and counting to compare sets with the same number of objects? How can you compare sets when the number of objects in one set is greater than the number of objects in the other set? How can you compare sets when the number of objects in one set is less than the number of objects in the other set? How can you make a model to solve problems using a matching strategy? How can you use a counting strategy to compare sets of objects?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	PreTest Mid-Chapter Checkpoint Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: same number match compare greater less	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Represent, Count, and Write Numbers 6 to 9
MLS: K.NS.A.4- Read and write numerals and represent a number of objects from 0 to 20. K.NS.B.1- Say the number names when counting objects, in the standard order, pairing each object with one and only one number names and each number names with one and only one object. K.NS.B.2- Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. K.NS.B.3-Demonstrate that each successive number name refers to a quantity that is one larger than the previous number. K.NS.B.4- Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns. K.NS.B.5- Demonstrate that a number can be used to represent "how many" are in a set.	**Priority Standards:** Read and write numerals and represent a number of objects from 0 to 20. Say the number names when counting objects, in the standard order, and demonstrate that the last number name said tells the number of objects counted.	**Supporting Standards:** Model and count 6 with objects. Represent up to 6 objects with a number name and a written numeral. Model and count 7 objects. Represent up to 7 objects with a number name and a written numeral. Model and count 8 with objects. Represent up to 8 objects with a number name and a written numeral. Model and count 9 with objects. Represent up to 9 objects with a number name and a written numeral. Solve problems by using the strategy *draw a picture*.

Prerequisite Skills:	Duration:	Essential Questions:
Holding a pencil Rote counting Counting objects to 5 Writing numerals to 5	3 weeks	How can you show and count 6 and 7 with objects? How can you count and write up to 6 with words and numbers? How can you count and write up to 7 with words and numbers? How can you show and count 8 objects? How can you count and write up to 8 with words and numbers? How can you show and count 9 objects? How can you count and write up to 9 with words and numbers? How can you solve problems using the strategy *draw a picture*?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: six seven eight nine match	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Represent and Compare Numbers to 10
MLS: K.NS.C.1- Compare two or more sets of objects and identify which set is equal to, more than or less than the other. K.NS.C.2- Compare two numerals, between 1 and 10, and determine which is more than or less than the other. K.RA.A.4- Make 10 for any number from 1 to 9.	**Priority Standards:** Compare two numerals, between 1 and 10, and determine which is more than or less than the other.	**Supporting Standards:** Use matching and counting strategies to compare sets with the same number of objects. Use matching and counting strategies to compare sets when the number of objects in one set is greater than or less than the number of objects in the other set. Make a model to solve problems using a matching strategy. Use a counting strategy to compare sets of objects.

Prerequisite Skills:	Duration:	Essential Questions:
Counting objects to 10 Writing numerals to 5 Comparing numerals to 5	2 weeks	How can you show and count 10 objects? How can you count and write up to 10 with words and numbers? How can you use a drawing to make 10 from a given number? How can you count forward to 10 from a given number? How can you solve problems using the strategy *make a model*? How can you use counting strategies to compare sets of objects? How can you compare two numbers between 1 and 10?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	PreTest Mid-Chapter Checkpoint Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: same number match compare greater less pairs	Enrichment Activities and Resources: Enrichment activities during RtI time Differentiated games/activities in math work stations	Reteach Activities and Resources: Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Addition
MLS: **K.RA.A.1- Represent addition and subtraction within 10.** **K.RA.A.2- Demonstrate fluency for addition and subtraction within 5.** **K.RA.A.3- Decompose numbers less than or equal to 10 in more than one way.** **K.RA.A.4- Make 10 for any number from 1 to 9.**	**Priority Standards:** **Demonstrate fluency for addition and subtraction within 5.** **Decompose numbers less than or equal to 10 in more than one way.**	**Supporting Standards:** **Use expressions to represent addition within 10.** **Solve problems by using the strategy *act it out*.** **Use objects and drawings to solve addition word problems within 5.** **Use a drawing to find 10 from a given number and record the equation.** **Solve addition word problems within 10 and record the equation.** **Decompose numbers within 10 into pairs in more than one way and record each decomposition with an equation.**

Prerequisite Skills: **Counting objects to 10** **Writing numerals to 10**	**Duration:** **3 weeks**	**Essential Questions:** **How can you show addition as adding to?** **How can you show addition as putting together?** **How can you solve problems using the strategy *act it out*?** **How can you use objects and drawing to solve addition word problems?** **How can you use a drawing to find the number that makes 10 from a given number?** **How can you solve additions word problems and complete the addition sentence?** **How can you model and write addition sentences for number pairs for sums to 10?**

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: add plus is equal to pair	Enrichment Activities and Resources: Enrichment activities during RtI time Differentiated games/activities in math work stations	Reteach Activities and Resources: Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Subtraction
MLS: K.RA.A.1- Represent addition and subtraction within 10. K.RA.A.2- Demonstrate fluency for addition and subtraction within 5. K.RA.A.3- Decompose numbers less than or equal to 10 in more than one way. K.RA.A.4- Make 10 for any number from 1 to 9.	**Priority Standards:** Demonstrate fluency for addition and subtraction within 5. Decompose numbers less than or equal to 10 in more than one way.	**Supporting Standards:** Use expressions to represent subtraction within 10. Solve problems by using the strategy *act it out.* Use objects and drawings to solve subtraction word problems within 5. Solve subtraction word problems within 10 and record the equation. Understand addition as putting together or adding to and subtraction as taking apart or taking from to solve word problems.

Prerequisite Skills:	Duration:	Essential Questions:
Counting objects to 10 Writing numerals to 10 Understanding addition concepts	3 weeks	How can you show subtraction as taking from? How can you show subtraction as taking apart? How can you solve problems using the strategy *act it out*? How can you use objects and drawings to solve subtraction word problems? How can you solve subtraction word problems and complete the equation? How can you solve word problems using addition and subtraction?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: minus is equal to subtract plus	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Represent, Count, and Write 11 to 19
MLS: K.NBT.A.1- Compose and decompose numbers from 11 to 19 into sets of tens with additional ones. K.NS.A.4- Read and write numerals and represent a number of objects from 0 to 20. K.NS.B.1- Say the number names when counting objects, in the standard order, pairing each object with one and only one number names and each number names with one and only one object. K.NS.B.2- Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. K.NS.B.3-Demonstrate that each successive number name refers to a quantity that is one larger than the previous number. K.NS.B.5- Demonstrate that a number can be used to represent "how many" are in a set.	**Priority Standards:** Compose and decompose numbers from 11 to 19 into sets of tens with additional ones. Read and write numerals and represent a number of objects from 0 to 20. Say the number names when counting objects, in the standard order, and demonstrate that the last number name said tells the number of objects counted.	**Supporting Standards:** Use objects to decompose the numbers 11 to 19 into ten ones and some further ones. Represent 11 to 19 objects with number name and written numerals. Solve problems by using the strategy *draw a picture.*

Prerequisite Skills:	Duration:	Essential Questions:
Rote counting Counting objects to 10 Writing numerals to 10	3 weeks	How can you use objects to show 11 to 19 as ten ones and some more ones? How can you count and write 11 to 19 with words and numbers? How can you solve problems using the strategy *draw a picture*?
Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons

Academic Vocabulary: eleven twelve thirteen fourteen fifteen sixteen seventeen eighteen nineteen ones tens	Enrichment Activities and Resources: Enrichment activities during RtI time Differentiated games/activities in math work stations	Reteach Activities and Resources: Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Represent, Count, and Write 20 and Beyond
MLS: K.NS.A.1-Count to 100 by ones and tens. K.NS.B.1- Say the number names when counting objects, in the standard order, pairing each object with one and only one number names and each number names with one and only one object. K.NS.B.2- Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. K.NS.B.3-Demonstrate that each successive number name refers to a quantity that is one larger than the previous number. K.NS.B.5- Demonstrate that a number can be used to represent "how many" are in a set.	**Priority Standards:** Count to 100 by ones and tens. Say the number names when counting objects, in the standard order, and demonstrate that the last number name said tells the number of objects counted.	**Supporting Standards:** Model and count 20 with objects. Represent up to 20 objects with number name and written numerals. Count forward to 20 from a given number. Solve problems by using the strategy *make a model.* Know the count sequence when counting to 100 by ones. Know the count sequence when counting to 100 by tens. Use sets of tens to count to 100.

Prerequisite Skills:	Duration:	Essential Questions:
Rote counting Counting objects to 19 Writing numerals to 19	2 weeks	How can you show and count 20 objects? How can you count and write up to 20 with words and numbers? How can you count forward to 20 from a given number? How can you solve problems using the strategy *make a model*? How does the order of numbers help you to count to 100 by ones? How can you count to 100 by tens on a hundred chart? How can you use sets of tens to count to 100?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: twenty fifty one hundred ones tens	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Identify and Describe Two-Dimensional Shapes
MLS: K.GM.C.1-Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size. K.GM.C.3-Identify and describe the attribute of shapes, and use the attributes to sort a collection of shapes. K.GM.C.4-Draw or model simple two-dimensional shapes. K.GM.C.5-Compose simple shapes to form larger shapes using manipulatives.	**Priority Standards:** Identify two- and three- dimensional shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.	**Supporting Standards:** Identify and name two-dimensional shapes including circles, squares, triangles, rectangles, and hexagons. Describe attributes of circles, squares, triangles, rectangles, and hexagons. Use the words *alike* and *different* to compare two-dimensional shapes by attributes. Solve problems by using the strategy *draw a picture.*

Prerequisite Skills:	Duration:	Essential Questions:
Visual discrimination skills	2 weeks	How can you identify and name, and describe circles? How can you identify, name, and describe squares? How can you identify, name, and describe triangles? How can you identify, name, and describe rectangles? How can you identify, name, and describe hexagons? How can you use the words *alike* and *different* to compare two-dimensional shapes? How can you solve problems using strategy *draw a picture*?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: circle two-dimensional shapes curve, corners, sides, vertex vertices square sides of equal length triangle rectangle hexagon alike different	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Identify and Describe Three-Dimensional Shapes
MLS: K.GM.C.1-Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size. K.GM.C.2-Describe the relative positions of objects in space. K.GM.C.3-Identify and describe the attribute of shapes, and use the attributes to sort a collection of shapes. K.GM.C.4-Draw or model simple two-dimensional shapes. K.GM.C.5-Compose simple shapes to form larger shapes using manipulatives.	**Priority Standards:** Identify two- and three- dimensional shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.	**Supporting Standards:** Analyze and compare three-dimensional shapes by attributes. Identify, name, and describe three-dimensional shapes including spheres, cubes, cylinders, and cones. Solve problems by using the strategy *use logical reasoning.* Model two- and three-dimensional shapes by building and drawing. Use the terms *above, below, beside, next to, in front of, and behind* to describe shapes in the environment.

Prerequisite Skills: **Visual discrimination skills** **Knowledge of two-dimensional shapes**	**Duration:** **2 weeks**	**Essential Questions:** **How can you show which shapes stack, roll, or slide?** **How can you identify, name, and describe spheres, cubes, cylinders, and cones?** **How can you solve problems by using the strategy *use logical reasoning*?** **How can you model shapes in the real world?** **How can you use the terms *above, below, beside, next to, in front of, and behind* to describe shapes in the environment?**

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: flat surface curved surface roll stack slide sphere three-dimensional shapes cube cylinder cone solid above below beside next to in front of behind	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring

Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Measurement
MLS: K.GM.A.1-Describe several measureable attributes of objects. K.GM.A.2-Compare the measureable attributes of two objects.	**Priority Standards:**	**Supporting Standards:** Directly compare the lengths of two objects. Directly compare the heights of two objects. Solve problems by using the strategy *use draw a picture.* Directly compare the weights of two objects. Describe several measurable attributes of a single object.

Prerequisite Skills:	Duration:	Essential Questions:
Visual discrimination skills Knowledge of two-dimensional shapes	1 week	How can you compare the lengths of two objects? How can you compare the heights of two objects? How can you solve problems by using the strategy *draw a picture*? How can you compare the weights of two objects? How can you describe several ways to measure one object?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons Balance Scales Classroom Objects
Academic Vocabulary: longer same length shorter same height taller heavier lighter same weight	**Enrichment Activities and Resources:** Enrichment activities during RtI time Differentiated games/activities in math work stations	**Reteach Activities and Resources:** Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: Kindergarten	Subject Area: Math	Unit Name: Classify and Sort Data
MLS: **K.DS.A.1-Classify objects into given categories; count the number of objects in each category.** **K.DS.A.2-Compare category counts using appropriate language.**	**Priority Standards:**	**Supporting Standards:** **Classify and count objects by color.** **Classify and count objects by shapes.** **Classify and count objects by size.** **Make a graph to count objects that have been classified into categories.** **Read a graph to count objects that have been classified into categories.**

Prerequisite Skills:	Duration:	Essential Questions:
Visual discrimination skills Counting objects	1 week	How can you classify and count objects by color? How can you classify and count objects by shape? How can you classify and count objects by size? How can you make a graph to count objects that have been classified into categories? How can you read a graph to count objects that have been classified into categories?

Learning Activities:	Assessments:	Resources/Materials:
Whole group instruction Small group instruction SmartBoard activities Math Work Stations Math on the Spot Tutorial Videos Go Math! Interactive Lessons Personal Math Trainer	Pre-test Mid-Chapter Checkpoints Chapter Test Teacher Observation Worksheets Teacher-Created Assessments	Go Math! Teacher Edition Go Math! Student Edition Go Math! Digital Resources Grab-and-Go Centers Kit Manipulatives Teacher-Created Learning Activities/Lessons
Academic Vocabulary: blue category classify color green red yellow shape big small size graph	Enrichment Activities and Resources: Enrichment activities during RtI time Differentiated games/activities in math work stations	Reteach Activities and Resources: Reteaching activities during RtI time Pull-out and push-in support from Title I math teacher After-school tutoring
Reflection:	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Addition Concepts
MLS: **1.OA.B.3- Understand and apply properties of operations and the relationship between addition and subtraction.** **1.OA.C.6- Add and subtract within 20.** **1.OA.D.7- Work with addition and subtraction equations.**	**Priority Standards:** **Add and subtract within 20.**	**Supporting Standards:** • **Use pictures to add to and find sums.** • **Use concrete objectives to solve adding to addition problems.** • **Use concrete objectives to solve putting together addition problems.** • **Solve adding to and putting together situations using the strategy make a model.** • **Understand and apply the Additive Identity Property for Addition.** • **Explore the Commutative Property of Addition.** • **Model and record all the ways to put together numbers within 10.**

		• **Build fluency for addition within 10.**
Prerequisite Skills: **Count forward and backward.** **Number recognition.**	**Duration: 4 weeks**	**Essential Questions:** • **How can you model adding within 10?** • **How do pictures show adding?** • **How do you model adding to a group?How do you model putting together?** • **How do you solve addition problems by making a model?** • **What happens when you add 0 to a number?** • **Why can you add addends in any order?** • **How can you show ways to make a number?** • **Why are some addition facts easy to add?**

Learning Activities: Whole group instruction Small group instruction Smartboard activities Math on the spot videos Interactive lessons	**Assessments:** Pre-test Mid-chapter checkpoints Post-test Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Smartboard Modeled examples Go Math book Manipulatives
Academic Vocabulary: Sum Addends Addition Addition sentence	**Enrichment Activities and Resources:** Flashcards Manipulatives enrich worksheets Smartboard games	**Reteach Activities and Resources:** Pull out and push in during RTI for extra practice.

Equals **Solve** **Word problems**	**Board games** **videos**	
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st Grade	Subject Area: Math	Unit Name: Subtraction Concepts
MLS: 1.RA.A.1-Use addition and subtraction with in 20 to solve problems. 1.RA.C.7- Add and subtract within 20. 1.RA.C.8- Demonstrate fluency with addition and subtraction within 20. 1.RA.A.3- Develop the meaning of the equal sign and determine if equations involving addition and subtraction are true or false.	**Priority Standards:** 1.RA.C.7- Add and subtract within 20.	**Supporting Standards:** • Use pictures to show "taking from" and find differences. • Use concrete objects to show "taking from" subtraction problems. • Use concrete problems to solve "taking apart" subtraction problems. • Solve taking from and taking apart subtraction problems using the strategy make a model. • Compare pictorial groups to understand subtraction. • Model and compare groups to show the meaning of subtraction. • Identify how many are left when

		subtracting zero. • Model and record all of the ways to take apart numbers within 10. • Build fluency for subtraction within 10.
Prerequisite Skills: Students need to have a great sense of number recognition. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	**Duration:** 2 ½ weeks	**Essential Questions:** • How can you show taking from with pictures? • How do you model taking from a group? • How do you model taking apart? • How do you solve subtraction problems by making a model? • How can you use pictures to compare and subtraction? • How can you use models to compare and subtract? • What happens when you subtract 0 from a number? • How can you show all the ways to take

		apart a number? • Why are some subtraction facts easy to subtract?
Learning Activities: Whole group instruction Small group instruction Smart board interactive activities Math on the spot videos Interactive lessons	**Assessments:** Pre-test Mid-chapter tests Post-tests Exit slips Chapter tests Observations Participation worksheets	**Resources/Materials:** • Assessments • Anchor charts • Smart board • Modeled examples • Go Math books • manipulatives

Academic Vocabulary: • Compare • Difference • Fewer • Minus • More • Subtract • Subtraction sentence	Enrichment Activities and Resources: Flashcards Manipulatives Enrich worksheets Smartboard games Board games Videos	Reteach Activities and Resources: Pull out and push in during RTI time for extra small group practice.
Reflection: I would spend more time on vocabulary, I found a great interactive notebook to incorporate for next year!	Notes:	

Richwoods R-VII Curriculum Form

Grade Level: 1st Grade	Subject Area: Math	Unit Name: Addition Strategies
MLS: 1.RA.A.2- Solve problem that call for addition of three whole numbers whose sum is within 20. 1.RA.B.5- Use properties as strategies to add and subtract. 1.RA.C.7- Add and subtract within 20. 1.RA.C.8- Demonstrate fluency with addition and subtraction within 20.	**Priority Standards:**	**Supporting Standards:** • Understand and apply the Commutative Property of Addition for sums within 20. • Use count on 1, 2, or 3 as a strategy to find sums within 20. • Use doubles as a strategy to solve addition facts with sums within 20. • Use doubles to create equivalent but easier sums. • Use doubles plus 1 and doubles minus 1 as strategies to find sums within 20. • Use the strategies count on, doubles, doubles plus 1, and doubles minus 1 to practice addition

		facts within 20. • Use ten frame to add 10 and an addend less than 10. • Use make a ten as a strategy to find sums within 20. • Use numbers to show how to use the make ten strategy to add. • Use the Associative Property of Addition to add three addends. • Understand and apply the Associative Property of Addition to add three addends. • Solve adding to and putting together situations using the strategy draw a picture.
Prerequisite Skills: Understand addition as putting together and adding to, and understand subtraction as	**Duration:** 4 weeks	**Essential Questions:** • What happens if you change the

taking apart and taking from.		**order of the addends when you add?** • **How do you count on 1, 2, or 3?** • **What are doubles facts?** • **How can you use doubles facts to help you add?** • **How can you use what you know about doubles to find other sums?** • **What strategies can you use to solve addition fact problems?** • **How can you use a ten frame to add 10 and some more?** • **How do you use the make a ten strategy to add?** • **How can you make a ten to help you add?** • **How can you add three addends?** • **How can you group numbers to add three addends?** • **How do you solve**

		addition word problems by drawing a picture?
Learning Activities: Whole group instruction Small group instruction Smart board interactive activities Math on the Spot videos Interactive lessons	**Assessments:** Pre-tests Mid-chapter check points Post-tests Exit slips Chapter Tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Smart board Modeled examples Go Math books manipulatives
Academic Vocabulary: Count on	**Enrichment Activities and Resources:** Flashcards	**Reteach Activities and Resources:**

Doubles **Doubles plus one** **Doubles minus one** **Make a ten**	**Manipulatives** **Enrich worksheets** **Smart board** **videos**	**Pull out and push in during RTI time for extra small group practice.**
Reflection: Spend more time focusing on doubles facts with flashcards next time.	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st Grade	Subject Area: Math	Unit Name: Subtraction Strategies
MLS: 1.RA.A.1- Use addition and subtraction within 20 to solve problems. 1.RA.B.6- Demonstrate that subtraction can be solved as an unknown addend problem. 1.RA.B.5- Use properties as strategies to add and subtract. 1.RA.C.7-Add and subtract within 20.	**Priority Standards:** Add and subtract within 20. Demonstrate fluency with addition and subtraction within 10.	**Supporting Standards:** • Use count back 1, 2, oe 3 as a strategy to subtract. • Recall addition facts to subtract numbers within 20. • Use addition as a strategy to subtract numbers within 20. • Use make a ten as a strategy to subtract. • Subtract by breaking apart to make a ten. • Solve subtraction problem situations using the strategy act it out.
Prerequisite Skills: Understand addition as putting together and adding to, and understand subtraction as	**Duration:** 2 weeks	**Essential Questions:** • How can you count back 1, 2, or 3?

taking apart and taking form.		• **How can you use an addition fact to find the answer to a subtraction fact?** • **How can you make a ten to help you subtract?** • **How can you break apart a number to subtract?** • **How can acting out a problem help you solve the problem?**
Learning Activities: **Whole group instruction** **Small group instruction** **Smart board interactive activities** **Interactive lessons**	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** **Assessments** **Anchor charts** **Smart board** **Modeled examples** **Go Math books** **Manipulatives**

taking apart and taking form.		• **How can you use an addition fact to find the answer to a subtraction fact?** • **How can you make a ten to help you subtract?** • **How can you break apart a number to subtract?** • **How can acting out a problem help you solve the problem?**
Learning Activities: **Whole group instruction** **Small group instruction** **Smart board interactive activities** **Interactive lessons**	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** **Assessments** **Anchor charts** **Smart board** **Modeled examples** **Go Math books** **Manipulatives**

Academic Vocabulary: **Count back**	**Enrichment Activities and Resources:** **Flashcards** **Manipulatives** **Enrich worksheets** **Smart board** **Videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI time for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st Grade	Subject Area: Math	Unit Name: Addition and Subtraction Relationships
MLS: 1.RA.A.1- Use addition and subtraction within 20 to solve problems. 1.RA.C.7- Add and subtract within 20. 1.RA.A.3-Develop the meaning of the equal sign and determine if equations involving addition and subtraction are true or false. 1.RA.A.4- Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	**Priority Standards:** Add and subtract within 20. Demonstrate fluency with addition and subtraction within 10.	**Supporting Standards:** • Solve addition and subtraction problem situations using the strategy make a model. • Record related facts within 20. • Identify related addition and subtraction facts within 20. • Apply the inverse relationships of addition and subtraction. • Use related facts to determine unknown numbers. • Use related facts to subtract. • Choose an operation and strategy to solve an addition or subtraction word problem. • Represent

		equivalent forms of numbers using sums and differences within 20. • **Determine if an equation is true or false.** • **Add and subtract facts within 20 and demonstrate fluency for addition and subtraction with 10.**
Prerequisite Skills: **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking form.**	**Duration:** **3 ½ weeks**	**Essential Questions:** • **How can making a model help you solve a problem?** • **How do related facts help you find missing numbers?** • **How do you know if addition and subtraction facts are related?** • **How can you use addition to check subtraction?** • **How can you use a related fact to find**

		an unknown number? • **How do you choose when to add and when to subtract to solve a problem?** • **How can you add and subtract in different ways to make the same number?** • **How can you decide if a number sentence is true or false?** • **How can addition and subtraction strategies help you find sums and differences?**
Learning Activities: **Whole group instruction** **Small group instruction** **Smart board interactive activities** **Interactive lessons**	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observastions Participation worksheets	**Resources/Materials:** **Assessments** **Anchor charts** **Smart board** **Modeled examples** **Go Math books** **Manipulatives**

Academic Vocabulary: **Related facts**	**Enrichment Activities and Resources:** **Flashcards** **Manipulatives** **Enrichment worksheets** **Smart board** **videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st Grade	Subject Area: Math	Unit Name: Count and Model Numbers
MLS: 1.NS.A.1- Count to 120, starting at any number less than 120. 1.NS.A.2- Read and write numerals and represent a number of objects with a written numeral. 1.NS.A.3- Count backward from a given number between 20 and 1. 1.NS.A.4- Count by 5s to 100 starting at any multiple of five. 1.NBT.A.2- Understand two-digit numbers are composed of tens and ones. 1.NBT.A.3- Compare two two-digit numbers using the symbols >, =, or <.	**Priority Standards:** Add and subtract within 20. Demonstrate fluency with addition and subtraction within 10. Count to 120, starting at any number less than 120. Read and write numerals and represent a number of objects with a written numeral. Understand two-digit numbers are composed of tens and ond ones. Compare two two-digit numbers using the symbols >, =, or <.	**Supporting Standards:** • Count by ones to extend a counting sequence up to 120. • Count by tens from any number to extend a counting sequence up to 120. • Use models and write to represent equivalent forms of ten and ones. • Use objects, pictures, and numbers to represent tens. • Group objects to show numbers to 50 as tens and ones. • Group objects to show numbers to 100 as tens and ones. • Solve problems using the strategy

		make a model. • Read and write numerals to represent a number of 100 to 110 objects. • Read and write numerals to represent a number of 110 to 120 objects.
Prerequisite Skills: **Know number names and the count sequence.** **Count to tell the number of objects.** **Work with numbers 11-19 to gain foundations for place value.**	**Duration:** **2 weeks 3 days**	**Essential Questions:** • How can knowing a counting pattern help you count to 120? • How do numbers change as you count by tens to 120? • How can you use different ways to write a number as ten and ones? • How can you show a number as ten and ones? • How can you model and name groups of ten? How can

		you group cubes to show a number as tens and ones? • How can you show numbers to 100 as tens and ones? • How can making a model help you show a number in different ways? • How can you model, read, and write numbers from 100 to 110 objects? • How can you model, read, and write numbers from 110 to 120 objects?
Learning Activities: Whole group instruction Small group instruction Smart board interactive activities Interactive lessons	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Smart board Modeled examples Go Math books Manipulatives

Academic Vocabulary: **Digit** **Hundred** **Ones** **Ten**	**Enrichment Activities and Resources:** **Flashcards** **Manipulatives** **Enrichment worksheets** **Smart board** **Videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Compare Numbers
MLS: 1.NBT.A.3- Compare two two-digit numbers using the symbols >, =, or <. 1.NBT.B.6- Calculate 10 more or 10 less than a given number mentally without having to count.	**Priority Standards:** Add and subtract within 20. Understand that two-digit numbers are composed of tens and ones. Compare two-digit numbers using the symbols >, =, or <.	**Supporting Standards:** • Model and compare two-digit numbers to determine which is greater. • Model and compare two-digit numbers to determine which is less. • Use symbols for less than < and greater than > and equal to =, to compare numbers. • Solve problems using the strategy make a model. • Identify numbers that are 10 more or 10 less than a given number.
Prerequisite Skills: Compare numbers	**Duration:** 12 days	**Essential Questions:** • How can you compare two numbers to find

		which is greater? • How can you compare two numbers to determine which is less? • How can you use symbols to show how numbers compare? • How can making a model help you compare numbers? • How can you identify numbers that are 10 less or 10 more than a number?
Learning Activities: Whole group instruction Small group instruction Smart board interactive activities Interactive lessons	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Smart board Modeled examples Go Math books Manipulatives

Academic Vocabulary: **> greater than** **< less than** **Is greater than** **Is less than**	**Enrichment Activities and Resources:** **Flash cards** **Manipulatives** **Enrichment worksheets** **Smartboard** **videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Two-Digit Addition and Subtraction
MLS: **1.RA.C.8- Demonstrate fluency with addition and subtraction within 10.** **1.NBT.B.5- Add within 100.** **1.NBT.B.7- Add or subtract a multiple of 10 from another two-digit number, and justify the solution.**	**Priority Standards:** **Demonstrate fluency with addition and subtraction within 10.**	**Supporting Standards:** • **Add and subtract within 20.** • **Draw a model to add tens.** • **Draw a model to subtract tens.** • **Use a hundred chart to find sums.** • **Use concrete models to add ones or tens to a two-digit number.** • **Make a ten to add a two-digit number and a one-digit number.** • **Use tens and ones to add two-digit numbers.** • **Solve and explain two-digit addition word problems using the strategy draw a picture.** • **Use a hundred chart to find sums and differences.**

		• **Add and subtract within 100, including continued practice with facts within 20.**
Prerequisite Skills: **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.** **Work with numbers 11-19 to gain foundations for place value.**	**Duration: 2 weeks 3 days**	**Essential Questions:** • **What strategies can you use to add and subtract?** • **How can you add tens?** • **How can you subtract tens?** • **How can models help you add ones or tens to a two-digit number?** • **How can making a ten help you add a two-digit number and a one-digit number?** • **How can you model tens and ones to help you add two-digit numbers?** • **How can drawing a picture help you explain how to solve an addition**

		problem? • How can you use a hundred chart to show the relationship between addition and subtraction? • What different ways can you use to add and subtract?
Learning Activities: Whole group instruction Small group instruction Smart board interactive activities Interactive lessons	**Assessments:** Pre-tests Mid-chapter checkpoints Post-tests Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Amart boards Modeled examples Go Math books Manipulatives

Academic Vocabulary: **Ones** **ten**	**Enrichment Activities and Resources:** **Flash cards** **Manipulatives** **Enrichment worksheets** **Smart board** **Videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Measurement
MLS: **1.GM.B.5- Order three or more objects by length.** **1.GM.B.6- Compare the lengths of two objects indirectly by using a third object.** **1.GM.B.7- Demonstrate the ability to measure length or distance using objects.** **1.GM.C.8- Tell and write time in hours and half-hours using analog and digital clocks.** **1.GM.C.9- Know the value of a penny, nickel, dime, and quarter.**	**Priority Standards:** **Tell and write time in hours and half-hours using analog and digital clocks.** **Know the value of a penny, nickel, dime, and quarter.**	**Supporting Standards:** • **Order objects by length.** • **Use the Transitivity Principle to measure indirectly.** • **Measure length using nonstandard units.** • **Make a nonstandard measuring tool to measure length.** • **Solve measurement problems using the strategy act it out.** • **Write times to the hour shown on analog clocks.** • **Write times to the half hour shown on analog clocks.** • **Tell times to the hour and half hour using analog and digital clocks.** • **Use the hour hand to draw and write times on analog**

		and digital clocks.
Prerequisite Skills: **Know number names and the count sequence.** **Describe and compare measurable attributes.**	**Duration: 2 weeks 2 days**	**Essential Questions:** • **How do you order objects by length?** • **How can you compare lengths of three objects to put them in order?** • **How do you measure length using nonstandard units?** • **How do you use a nonstandard measuring tool to measure length?** • **How can acting it out help you solve measurement problems?** • **How do you tell time to the hour on a clock that has only an hour hand?** • **How do you tell time to the half hour on a clock that has only an hour hand?** • **How are the minute**

		hand and hour hand different for time to the hour and time to the half hour? • **How do you know whether to draw and write time to the hour or half hour?**
Learning Activities: **Whole group instruction** **Small group instruction** **Smart board activities** **Interactive lessons**	**Assessments:** **Pre-test** **Mid-chapter checkpoints** **Post-test** **Exit slips** **Chapter tests** **Observations** **Participation** **Worksheets**	**Resources/Materials:** **Assessments** **Anchor charts** **Smart boards** **Modeled examples** **Go Math books** **Manipulatives**

Academic Vocabulary: **Half hour** **Hour** **Hour hand** **Longest** **Minute** **Minute hand** **shortest**	**Enrichment Activities Resources:** **Flashcards** **Manipulatives** **Enrichment worksheets** **Smartboard** **videos**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Represent Data
MLS: **1.DS.A.1- Collect, organize and represent data with up to three categories.** **1.DS.A.2- Draw conclusions from object graphs, picture graphs, T-charts and tallies.**	**Priority Standards:** **Draw conclusions from object graphs, picture graphs, T-charts, and tallies.**	**Supporting Standards:** • **Analyze and compare data shown in a picture graph where each symbol represents one.** • **Make a picture graph where each symbol represents one and interpret the information.** • **Analyze and compare data shown in a bar graph.** • **Make a bar graph and interpret the information.** • **Analyze and compare data shown in a tally chart.** • **Make a tally chart and interpret the information.** • **Solve problem situations using the**

		strategy make a graph.
Prerequisite Skills: **Classify objects and count the number of objects in each category.**	**Duration: 10 days**	**Essential Questions:** • **What do the pictures in a picture graph show?** • **How do you make a picture graph to answer a question?** • **How can you read a bar graph to find the number that a bar graph shows?** • **How does a bar graph help you compare information?** • **How do you count the tallies on a tally chart?** • **Why is a tally chart a good way to show information that you have collected?** • **How can showing information in a graph help you**

		solve problems?
Learning Activities: Whole group instruction Small group instruction Smartboard activities Interactive lessons	**Assessments:** Pre-test Mid-chapter checkpoints Post-test Exit slips Chapter tests Observations Participation Worksheets	**Resources/Materials:** Assessments Anchor charts Smartboard Modeled examples Go Math Books Manipulatives
Academic Vocabulary: Bar graph Tally graph Picture graph	**Enrichment Activities and Resources:** videos Flashcards Manipulatives Enrichment worksheets	**Reteach Activities and Resources:** Pull out and push in during RTI for extra

Tally mark	**Smartboard**	**practice.**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1st grade	Subject Area: Math	Unit Name: Three-Dimensional Geometry
MLS: **1.GM.A.1- Distinguish between defining attributes versus non-defining attributes; build and draw shapes that possess defining attributes.** **1.GM.A.2- Compose and decompose two- and three- dimensional shapes to build an understanding of part-whole relationships and the properties of the original and composite shapes.**	**Priority Standards:**	**Supporting Standards:** • **Identify and describe three-dimensional shapes according to defining attributes.** • **Compose a new shape by combining three-dimensional shapes.** • **Use composite three-dimensional shapes to build new shapes.** • **Identify three-dimensional shapes used to build a composite shape using the strategy act it out.** • **Identify two-dimensional shapes on three-dimensional shapes.**

Prerequisite Skills: **Identify and describe shapes.** **Analyze, compare, create, and compose shapes.**	**Duration: 2 weeks 3 days**	**Essential Questions:** • **How can you identify and describe three-dimensional shapes?** • **How can you combine three-dimensional shapes to make new shapes?** • **How can you use a combined shape to build new shapes?** • **How can acting it out help you take apart combined shapes?** • **What two-dimensional shapes do you see on the flat surfaces of three-dimensional shapes?**
Learning Activities: **Whole group instruction**	**Assessments:** **Pre-test**	**Resources/Materials:** **Assessments**

Small group instruction Smartboard activities Interactive lessons	Mid-chapter checkpoint Post-test Exit slips Chapter tests Observations Participation Worksheets	Anchor charts Smartboard Modeled examples Go Math books Manipulatives
Academic Vocabulary: Cone Cube Curved surface Cylinder Flat surface Rectangular prism Sphere	Enrichment Activities and Resources: Videos Flashcards Manipulatives Enrichment worksheets	Reteach Activities and Resources: Pull out and push in during RTI for extra practice.

Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 1sr grade	Subject Area: Math	Unit Name: Two-Dimensional Geometry
MLS: **1.GM.A.1- Distinguish between defining attributes versus non-defining attributes; build and draw shapes that possess defining attributes.** **1.GM.A.2- Compose and decompose two-and three-dimensional shapes to build an understanding of part-whole relationships and the properties of the original and composite shapes.** **1.GM.A.3- Recognize two-and three-dimensional shapes from different perspectives and orientations.**	**Priority Standards:**	**Supporting Standards:** • **Use defining attributes to sort shapes.** • **Describe attributes of two-dimensional shapes.** • **Use objects to compose new two-dimensional shapes.** • **Compose a new shape by combining two-dimensional shapes.** • **Make new shapes from composite two-dimensional shapes using the strategy act it out.** • **Decompose combined shapes into shapes.** • **Decompose two-dimensional shapes into parts.**

		• Identify equal and unequal parts (or shares) in two-dimensional shapes. • Partition circles and rectangles into two equal shares.
Prerequisite Skills: **Identify and describe shapes.** **Analyze, compare, create, and compose shapes.**	**Duration: 2 weeks**	**Essential Questions:** • How can you use attributes to classify and sort two-dimensional shapes? • What attributes can you use to describe two-dimensional shapes? • How can you put two-dimensional shapes together to make new two-dimensional shapes? • How can you combine two-dimensional shapes to make new shapes? • How can acting it

		out help you make new shapes from combined shapes? • How can you find shapes in other shapes? • How can you take apart two-dimensional shapes? • How can you identify equal and unequal parts in two-dimensional shapes? • How can a shape be separated into two shares. • How can a shape be separated into four equal shares?
Learning Activities: Whole group instruction Small group instruction Smartboard activities Interactive lessons	**Assessments:** Pre-test Mid-chapter checkpoint Post-test Exit slips Chapter tests Observations Participation	**Resources/Materials:** Assessments Anchor charts Smartboard Modeled examples Go Math books Manipulatives

	Worksheets	
Academic Vocabulary: **Equal parts** **Equal shares** **Fourth of** **Fourths** **Half of** **Halves** **Quarter of** **Quarters** **sides**	**Enrichment Activities and Resources:** **Videos** **Flashcards** **Manipulatives** **Enrichment worksheets**	**Reteach Activities and Resources:** **Pull out and push in during RTI for extra practice.**
Reflection:	**Notes:**	

2nd Grade Math Curriculum Map

	Aug.	Sept	Oct.	Nov	Dec.	Jan.	Feb	March	April	May
Number Sense	Diagnostic Testing **BOY Tests**	Place Value			**MOY Tests**	**Review**				**EOY Tests**
# Sense Operations in Base Ten	-Review -Even/Odd #s -Counting			-Represent & solve problems involving addition and subtraction	-Represent & solve problems involving addition and subtraction					
Relationships & Algebraic Thinking		-Add/sub within 20	-Add/sub within 20 & 100					-Relate + and - to length		-Develop foundations for multiplication and division
Geometry & Measurement						-Reason with shapes & their attributes	-Time and money	-Measure & estimate lengths in standard units		
Data & Statistics									-Represent & interpret data	

2nd Grade Math Pacing Guide	Number Sense	Number Sense and Operations in Base Ten	Relationships and Algebraic Thinking	Geometry and Measurement	Data and Statistics
1 Quarter	Diagnostic Testing -AMISWeb -STAR **-BOY Test** -Skill Review	**Understand place value of 3 digit numbers** -Place value -Skip counting -Reading and writing numbers -Comparing numbers -Addition & subtraction fluency [within 20 & 100] -Adding 4 digit numbers -Mental math	**Add/sub within 20 &100** -Place value -Skip counting -Reading and writing numbers -Comparing numbers -Addition & subtraction fluency [within 20 & 100] -Adding 4 digit numbers -Mental math		
2nd Quarter	**MOY Test**	**Write & solve + and - problems with 100** - Write & solve problems involving addition and subtraction			
3rd Quarter	**Review after Christmas Break**			**Reasons with shapes and their attributes** -Recognize and draw shapes -Triangles, quadrilaterals, pentagons, hexagons, circles, and cubes -3D objects -Partition shapes	

3rd Quarter Cont.				**Time and Money** -Tell and write time to nearest 5 minutes -Digital and analog clocks -Dollar bills, quarters, dimes, nickels, and pennies -Find combinations that equal a given amount	
4th Quarter	**EOY Test**		**Develop Foundations for multiplications and division** -Even/odd numbers -Skip count by 2s Express even numbers in groups -Rectangular arrays	**Measure and estimate lengths in standard units** -Use appropriate tools -Measure length of an object - Inches, feet, yards, centimeters, and meters -Compare/contrast lengths **Relate addition & subtraction to length** -Use + and - within 100 to solve problems given in the same units - Number lines	**Represent and interpret data** - Line plots -Picture and bar graphs -Solve problems using information from line plots, picture and bar graphs -Draw conclusions

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math [Chapters 3-6]	**Unit Name:** Addition and Subtraction
MLS: 2.NBT.B.6 2.NBT.B.7 2.NBT.B.8 2.NBT.B.9 2.NBT.C.11 2.RA.A.1 2.RA.B.3	**Priority Standards:** 2.NBT.B.6 2.NBT.B.7	**Supporting Standards:** 2.NBT.A.1 2.NBT.A.3
Prerequisite Skills: Basic Addition and Subtraction Skills Understanding Chapter Vocabulary	**Duration:** Chapter 3 - 2 ½ weeks Chapter 4 - 2 ½ weeks Chapter 5 - 2 ½ weeks Chapter 6 - 2 ½ weeks Total - 10-11 weeks	**Essential Questions:** How can you use patterns and strategies to find sums and differences for basic facts? How do you use place value to add 2 digit numbers and what are some different ways to add 2 digit numbers? How do you use place value to subtract 2 digit numbers with and without regrouping? What are some strategies for adding and subtracting 3 digit numbers?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole Group Work Independent Work Math on the Spot Videos Games Manipulatives Interactive Notebooks	Chapter Tests Quizzes Ticket out the Door CFAs Observations Worksheets	Math workbooks Smartboard Educational videos Interactive lessons Manipulatives Review games Reteach/enrich Worksheets from math series
Academic Vocabulary: Sums Addends Differences Regroup Column Row	**Enrichment Activities and Resources:** Flashcards Smartboard Interactive Lessons Math Games Manipulatives Interactive Notebooks	**Reteach Activities and Resources:** Small Groups Worksheets Games RTI Tutoring
Reflection: Next time, do more hands on	**Notes:** Don't spend too much time on the easier	

activities for my struggling students.	concepts.	

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math [Chapter 10]	**Unit Name:** Data
MLS: 2.DS.A.3	**Priority Standards:** 2.RA.A.1	**Supporting Standards:** 2.DS.A1 2.DS.A.2 2.DS.A.4 2.DS.A5
Prerequisite Skills: 2.DS.A1 2.DS.A.2	**Duration:** 1 ½ weeks	**Essential Questions:** How do tally charts, picture graphs, and bar graphs help you solve problems?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole Group Work Independent Work Math on the Spot Videos Games Manipulatives Interactive Notebooks	Chapter Tests Quizzes Ticket out the Door CFAs Observations Worksheets	Math workbooks Smartboard Educational videos Interactive lessons Manipulatives Review games Reteach/enrich Worksheets from math series

Academic Vocabulary: Survey Data Tally chart Picture graph Key Bar graph Data	**Enrichment Activities and Resources:** Flashcards Smartboard Interactive Lessons Math Games Manipulatives Interactive Notebooks	**Reteach Activities and Resources:** Small Groups Worksheets Games RTI Tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math	**Unit Name:** Geometry & Fractions
MLS: 2.GM.A.1 2.GM.A.2 2.GM.A.3	**Priority Standards:** 2.GM.A.1	**Supporting Standards:** 2.NBT.A.4 2.NBT.B.6
Prerequisite Skills: 2.NBT.A.4 2.NBT.B.6	**Duration:** 2 ½ weeks	**Essential Questions:** What are some two-dimensional shapes and three dimensional shapes, and how can you show equal parts of shapes?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Group work Interactive lessons Interactive notebooks Workbook pages Games	Chapter tests Worksheets Observations	Smartboard Consumable workbooks SuperTeachers Interactive notebooks
Academic Vocabulary: Angle Cone Cylinder Edge Face Fourths Halves Hexagon Pentagon Quadrilateral Rectangular prism Side Thirds Vertex		**Reteach Activities and Resources:** RTI work in books Small group One-on-one work Games
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math [Chapters 8 & 9]	**Unit Name:** Length & Measurement
MLS: 2.GM.B.4 2.GM.B.5 2.GM.B.6 2.GM.B.7 2.GM.C.8 2.GM.C.9 2.DS.A.1 2.DS.A.2	**Priority Standards:**	**Supporting Standards:** 2.NBT.B.6
Prerequisite Skills: Addition & subtraction Measurement skills	**Duration:** 2 weeks [Chapter 8] 2 weeks [Chapter 9]	**Essential Questions:** What are some of the methods and tools that can be used to estimate and measure length? What are some of the methods and tools that can be used to estimate and measure length in metric units?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole Group Work	Chapter Tests	Math workbooks
Independent Work	Quizzes	Smartboard
Math on the Spot Videos	Ticket out the Door	Educational videos
Games	CFAs	Interactive lessons
Manipulatives	Observations	Manipulatives
Interactive Notebooks	Worksheets	Review games
		Reteach/enrich
		Worksheets from math series

Academic Vocabulary: Foot Inch Line plot Measuring tape Yardstick Centimeter Meter	**Enrichment Activities and Resources:** Flashcards Smartboard Interactive Lessons Math Games Manipulatives Interactive Notebooks	**Reteach Activities and Resources:** Small Groups Worksheets Games RTI Tutoring
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math [Chapters 1 & 2]	**Unit Name:** Number Concepts
MLS: 2.RA.B.2 2.NBT.A.4 2.NBT.A.3 2.NBT.A.1 2.NBT.B.10 2.NBT.A.5	**Priority Standards:** 2.NBT.A.4 2.NBT.B.6	**Supporting Standards:** 2.NBT.A.2
Prerequisite Skills: Place value [tens & ones] Even & odd numbers Basic addition and subtraction	**Duration:** Chapter 1 - 2.5 weeks Chapter 2 - 1.5 weeks	**Essential Questions:** How do you use place value to find values of numbers and describe numbers in different ways? How can you use place value to model, write, and compare 3-digit numbers?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole Group Work Independent Work Math on the Spot Videos Games Manipulatives Interactive Notebooks	Chapter Tests Quizzes Ticket out the Door CFAs Observations Worksheets	Math workbooks Smartboard Educational videos Interactive lessons Manipulatives Review games Reteach/enrich Worksheets from math series
Academic Vocabulary:	**Enrichment Activities and Resources:**	**Reteach Activities and Resources:**
Digit Even numbers Odd numbers Compare Hundred Greater than Less than Equal to Thousand	Flashcards Smartboard Interactive Lessons Math Games Manipulatives Interactive Notebooks	Small Groups Worksheets Games RTI Tutoring

Reflection:	**Notes:** Use base-ten blocks more with students.	

Richwoods R-VII Curriculum Form

Grade Level: 2nd	**Subject Area:** Math [Chapter 7]	**Unit Name:** Time & Money
MLS: 2.GM.D.10 2.GM.D.11 2.GM.D.12 2.GM.D13	**Priority Standards:** 2.GM.D.10 2.GM.D.12	**Supporting Standards:** 2.NBT.A.3 2.NBT.B.10
Prerequisite Skills: Skip counting [5s & 10s] Adding and subtracting	**Duration:** 2 weeks	**Essential Questions:** How do you use the values of coins and bills to find the total value of a group of money? How do you read times shown on an analog clock and digital clocks?

Learning Activities:	**Assessments:**	**Resources/Materials:**
Whole Group Work Independent Work Math on the Spot Videos Games Manipulatives Interactive Notebooks	Chapter Tests Quizzes Ticket out the Door CFAs Observations Worksheets	Math workbooks Smartboard Educational videos Interactive lessons Manipulatives Review games Reteach/enrich Worksheets from math series

Academic Vocabulary:	**Enrichment Activities and Resources:**	**Reteach Activities and Resources:**
A.M. Cent sign Decimal point Dime Dollar Dollar sign Hour Midnight Minute Noon Nickel Penny P.M. Quarter Quarter past	Flashcards Smartboard Interactive Lessons Math Games Manipulatives Interactive Notebooks	Small Groups Worksheets Games RTI Tutoring
Reflection:	**Notes:** Try to fit in more games	

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 1: Add and Subtract within 1000 and Represent and Interpret Data
MLS: • 3.OA.D.9 • 3.NBT.A.1 • 3.NBT.A.2 • 3.NBT.A.2 • 3.NB.A.1 • 3.OA.D.8 • 3.MD.B.3 • 3.MD.B.4 • 3. DS.A	**Priority Standards:** • 3.OA.D- Solve problems involving the four operations, and identify and explain patterns in arithmetic. • 3.NBT.A- Use place value understanding and properties of operations to perform multi-digit arithmetic. • 3. DS.A- Represent and interpret data.	**Supporting Standards:** 1. Solve problems involving the four operations, and identify and explain patterns in arithmetic. 2. Identify arithmetic patterns, and explain them using properties of operations. 3. Use place value understanding to round whole numbers to the nearest 10 or 100. 4. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. 5. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. 6. Solve one and two step problems using information presented in scaled bar graphs. 7. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show data by making a line plot, where he horizontal scale is marked off in appropriate units-whole numbers, halves, or quarters.
Prerequisite Skills: ➢ I can build vocabulary. ➢ I can identify number patterns. ➢ I can round to the nearest ten or hundred. ➢ I can estimate sums. ➢ I can use different strategies to	**Duration:** **5 weeks**	**Essential Questions:** ➢ How can you represent and interpret data? How can you use properties to explain patterns on the addition table? ➢ How can you round numbers? How can you use compatible numbers and rounding to estimate sums?

add and subtract. ➢ I can model addition and subtraction ➢ I can organize data. ➢ I can make and use picture graphs. ➢ I can make and use bar graphs. ➢ I can solve problems using data. ➢ I can use and make line plots.		➢ What mental math strategies can you use to find sums? How can you add more than two addends? ➢ How can you use the break apart strategy to add 3 digit numbers? How can you use place value to add 3-digit numbers? ➢ How can you use place value to subtract 3-digit numbers? ➢ How can you read and interpret data in a picture graph, bar graph, or line plot? ➢ How can you create a bar graph, picture graph, or line plot with data given? ➢ How can you use properties to explain patterns on the addition table?
Learning Activities: Week 1- We will complete a pre assessment for addition and subtraction within 1,000. This will show me where the students are at. As a class we will work on the vocabulary builder. We will then work on number patterns pages in the Go math book 5-7. Then students will work on practice and homework to check to see what they know. I will then teach about rounding to the nearest ten or hundred. We will complete pages 11-14 and then students again will complete the practice and homework. Next, we will estimate sums on pages 17-20. Then students will complete the practice and homework for a grade. Next, we will work on Mental Math strategies for addition pages 23-26.Practice and homework will be given for students for assessment and a	**Assessments:** ➢ *Pre assessment* ➢ *End of Lesson assessments* ➢ *Mid-Chapter Assessment* ➢ *Post Assessment*	**Resources/Materials:** ➢ Go MATH Workbooks ➢ Enrichment Book ➢ Reteach book ➢ Charting paper ➢ White Board/markers ➢ Math practice worksheets ➢ Pre assessment ➢ End of Lesson assessments ➢ Mid-Chapter Assessment ➢ Post Assessment

grade. Throughout this unit I will use the enrich and reteach book when needed. Week 2- We will work in our book to use properties to add. We would work on pages 29-34. We will do all these pages together. We will then cover the use the breakaway strategy to add pages 35-38. Then the students will use the breakaway strategy to solve problems on practice and homework pages 39-40. We will then use place value to add pages 41-44. Then, practice and homework pages 45-46. Students will then have a Mid-Chapter checkpoint 47-48 to check student's comprehension. Throughout this unit I will use the enrich and reteach book when needed. Week 3-Now we will cover subtraction. Students will work in their books pages 49-52 and estimate differences. I will then check for understanding by the practice and homework on pages 53 and 54. Students and I will coves pages 55-64 in our math book using place value to add and students will complete and assessment on pages 65-66. Next, students will work on pages 67-76 problem solving and modeling addition and subtraction. Students will complete practice and homework page 77-78 and we will go over as a class. We will do the chapter review and the next day they will take the test. Week 4- Students will start in Chapter 2 in their books problem solving and organizing data. They will start on pages 87-90. Students will work on their own on pages 91-92. We will make picture graphs and make different types of graphs on chart paper. They will work in their books and also hands on activities. Students will cover the mid chapter check point I will use this information to see if we		

need to move on or reteach the lesson. Now we will be covering bar graphs and I will have anchor charts and we will make a class bar graph. We will cover pages 107-118 in the math book and students will take a small assessment of data given to them. They will the solve problems using data given to them in their books pages 119-124 and then use and make line plots pages 127-130. Week 5- We will do some fun activities of making different types of graphs. We will then complete the study guide together and take the final assessment over representing and interpreting data.		
Academic Vocabulary: ➢ Sum ➢ Difference ➢ Data ➢ Bar Graph ➢ Number line ➢ Addends ➢ Picture Graph ➢ Line Plots ➢ Estimate ➢ Place Value ➢ Round ➢ Pattern ➢ Commutative Property ➢ Distributive Property	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self-reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to	**Notes:**	

look at their goals and talk with a neighbor on how close they were to meeting their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 2: Multiplication Facts 0-12
MLS: ➢ 3.RA.A ➢ 3.RA.C.7 ➢ 3.RA.A.4 ➢ 3.RA.A.5 ➢ 3.RA.B.6 ➢ 3.RA.A.3 ➢ 3.NBT.A.4	**Priority Standards:** ➢ 3.RA.A.4: Use multiplication within 100 to solve problems. ➢ 3.RA.C.7: Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of two one digit numbers. ➢ 3.RA.A Represent and solve problems involving multiplication and division.	**Supporting Standards:** 1. Demonstrate fluency with products within 100. 2. Use the four operations to solve word problems. 3. Apply properties of operations as strategies to multiply and divide. 4. Determine the unknown number in a multiplication or division equation relating three whole numbers. 5. Describe in words or drawing a problem that illustrates a multiplication or division situation. 6. Interpret products of whole numbers.
Prerequisite Skills: • I can use multiplication within 100 to solve problems.	**Duration:** 5 weeks	**Essential Questions:** ➢ How can you use multiplication facts, place value,

• I can multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of two one digit numbers. • I can represent and solve problems involving multiplication and division. • I can use strategies to multiply with multiples of 10. • I can solve a multiplication problem using a pattern. • I can use the distributive property to solve problems. • I can model a problem situation with a multiplication equation with an unknown number. • I can find an unknown factor or product.		and properties to solve multiplication problems? ➢ What are some ways you can describe a pattern in a table? ➢ How can you use an array or multiplication table to find an unknown factor or product? ➢ How can you use the strategy draw a diagram to multiply with multiples of 10? ➢ What strategies can you use to multiply with multiples of 10? ➢ How can you model and record multiplying 1-digit whole numbers by multiples of 10?
Learning Activities: Week 1- We will complete a pre-test of adding tens, regrouping tens as hundreds, and multiplication facts through 9. After the assessment I will be able to reteach if needed. After, we will complete the vocabulary	**Assessments:** Pre assessment End of Lesson assessments Mid-Chapter Assessment	**Resources/Materials:** Pre assessment Anchor Charts Smartboard Go Math book Base ten blocks

builder in their math book. We will review words already covered like array, Communitive Property of Addition, Distributive Property, factors, hundreds, multiples, ones, patterns, place value, product, and tens. I will introduce the new vocabulary word equation. We will fill in the blank, with definitions and the new and old vocabulary words. We will complete lesson 5.1 in their math books called "Describe Patterns". Students will complete the practice page on their own. Next, we will find the unknown numbers in an equation. We complete problems together on the smartboard and then students will do the practice to check for understanding. Students will complete a mid-chapter checkpoint to check for understanding of what I taught so far. If I need to reteach I will do this at the end of the week. Week 2- We will work in our math book on lesson 5.3. Students will problem solve, and learn how to solve with the distributive property of multiplication. We will fill out a chart that asks questions like What do I need to find? What information do I need to use? How will I use the information? and Record the steps you used to solve the problem. Student will have to explain when using the distributive property.	Post Assessment	Modeled examples Mid assessments Chapter check assessments Reteach outline Post assessment

Students will continue to work out problems/ word problems given on the smart board with partners. Students then will have a small assessment to check for understanding. Week 3- We will start the lesson counting by tens up to 200. We will then continue with lesson by using multiplication strategies with multiples of tens. We will work in our book and with the smart board for lesson 5.4. Students will learn how to use a number line to solve multiplication problems .Students will work in small cooperative groups to solve on a number line. We will continue the concepts and skills practice with the lesson check. Students will use the spiral review to engage students in previously taught concepts and to promote content retention. Week 4- Students will learn how to multiply 1-digit numbers by multiples of ten. Students will use base ten blocks to solve questions throughout the lesson. Students will be able to be hands on in this lesson with the base ten blocks. Students will complete an enrich multiplication puzzle. Students will also complete Lesson 5.5 as a class. Students will work with base ten blocks with their cooperative groups. They will work in groups and we will work as a class to complete this		

lesson. Students will finish the lesson with the lesson review and spiral review. Week 5- We will start the week with starting the Chapter 5 review study guide. This will take a couple days to cover and review anything I see the students struggle with. Students will then take the Chapter 5 Test. Once graded I will hand the test back to students and we will review as a class.		
Academic Vocabulary: ➢ Factor ➢ Multiples ➢ Equation ➢ Commutative Property of Multiplication ➢ Distributive Property of Multiplication ➢ Multiplication ➢ Product	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written	**Notes:**	

assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to look at their goals and talk with a neighbor on how close they were to meeting their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 4: Understand and Compare Fractions
MLS: • 3.NF.A.1 • 3.NF.A.2a • 3.NF.A.2b • 3.NF.A.3c • 3.NF.A.1 • 3.NF.A.3a • 3.NF.A.3d • 3.NF.A.3a	**Priority Standards:** • 3.NF.A Develop understanding of fractions as numbers.	**Supporting Standards:** ○ 3.NF.A.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. ○ 3.NF.A.2a Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line. ○ 3.NF.A.2b Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. ○ 3.NF.A.3d Compare two fractions with the same numerator or the same denominator by

		reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. ○ 3.NF.A.3b Recognize and generate simple equivalent fractions. Explain why the fractions are equivalent. ○ 3.NF.A.3a Understand two fractions as equivalent if they are the same size, or the same point on a number line.
Prerequisite Skills: I can explore and identify equal parts of a whole. I can divide models to make equal shares. I can use a fraction to name one part of a whole that is divided into equal parts. I can read, write, and model fractions that represent more than one part of a whole that is divided into equal parts. I can represent and locate fractions on a number line. I can relate fractions and whole numbers by expressing whole	**Duration:** 6 weeks	**Essential Questions:** • What are equal parts of a whole and why do you need to know how to make equal shares? • What do the top and bottom numbers of a fraction tell? How does a fraction name part of a whole? • How can you represent and locate fractions on a number line? • When might you use a fraction greater than 1 or a whole number? • How can a fraction name part of a group?

numbers as fractions and recognizing fractions that are equivalent to whole numbers.

I can model, read, and write fractional parts of a group.

I can find fractional parts of a group using unit fractions.

I can solve fraction problems by using the strategy draw a diagram.

I can solve comparison problems by using the strategy act it out.

I can compare fractions with the same denominator by using models and reasoning strategies.

I can compare fractions with the same numerator by using models and reasoning strategies.

I can model equivalent fraction by folding paper, using area models, and using number lines.

I can generate equivalent fractions by using models.

- How can a fraction tell how many are in part of a group?
- How can you compare fractions with the same denominator?
- How can you compare fractions with the same numerator?
- What strategies can you use to compare fractions?
- How can you compare and order fractions?
- How can you use models to find equivalent fractions?
- How can you use models to name equivalent fractions?

Learning Activities:

Week 1- Pre-test. After the pretest we will explore and identify parts of a whole, divide

Assessments:

Pre assessment

End of Lesson

Resources/Materials:

Pre assessment

Anchor Charts

Smartboard

models to make equal shares, and to use a fraction to name one part of a whole that is divided into equal parts. Our vocabulary words we cover throughout the week are eighths, equal parts, fourths, halves, sixths, thirds, whole, fraction, and fraction unit. We will have a small assessment to check for understanding at the end of the week. Week 2- I will teach students on how to read, write, and model fractions that represent more than one part of a whole that is divided into equal parts. I will also teach how to represent and locate fractions as a number line. Students will be able to relate fractions and whole numbers by expressing whole numbers as fractions and recognizing fractions that are equivalent to whole numbers. We will cover the vocabulary words denominator, numerator, and fraction greater than 1. Week 3- Students will model, read, and write fractional parts of a group. They will learn how to use fractional parts of a group using unit fractions. Students will learn how to solve fraction problems by	assessments Mid-Chapter Assessment Post Assessment	Go Math book Modeled examples Mid assessments Chapter check assessments Reteach outline Enrich Activity Post assessment

using the strategy draw a diagram. Week 4- Students will solve comparison problems by using the strategy act it out with the compare equal to (=), greater than (>), less than (<). I will teach students to compare fractions with the same denominator by using models and reasoning strategies. I will teach students compare fractions with the same numerator by using models and reasoning strategies. Week 5- This week we compare fractions by using models and strategies involving the size of the pieces in the whole. I will also compare and order fractions by using models and reasoning strategies. Students will model equivalent fractions by folding paper, using area models, and using number lines. We will cover vocabulary words equivalent and equivalent fractions. Week 6- We will review what we have learned throughout the lessons and complete a study guide. Towards the end of the week students will take their final assessment.		

Academic Vocabulary:	**Enrichment Activities and Resources:**	**Reteach Activities and Resources:**
• eighths • equal parts • fourths • halves • sixths • thirds • whole • fraction • fraction unit • numerator • denominator	Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to look at their goals and talk with a neighbor on how close they were to meeting their new and old goals.	**Notes:**	

Teacher: If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 3: Division
MLS: ➢ 3.OA.A.2 ➢ 3.OA.A.3 ➢ 3.OA.B.6 ➢ 3.OA.C.7 ➢ 3.OA.B.5 ➢ 3.NBT.A	**Priority Standards:** ➢ 3.OA.A- Represent and solve problems involving multiplication and division. ➢ 3.OA.Multiply and divide within 100. ➢ 3.OA.D- Solve problems involving the four operations, and identify and explain patterns in arithmetic. ➢ 3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.	**Supporting Standards:** ➢ 3.OA.A.2 Interpret whole-number quotients of whole numbers. ➢ 3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement the quantities. ➢ 3.OA.B.5 Understand properties of multiplication and the relationship between multiplication and division. Apply properties of operations as strategies to multiply and divide. ➢ 3.OA.B.6 Understand division as an unknown factor problem. ➢ 3.OA.C.7 Fluently multiply and divide with 100, using strategies such as the relationship between multiplication and division or properties of operations. ➢ 3.OA.A.4 Determine the whole number in a multiplication or division equation relating three whole numbers. ➢ 3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations

		with a letter standing for the unknown quantity. Assess the reasonableness and estimation strategies including rounding.
Prerequisite Skills: •I can multiply within 100. •I can divide within 100. •I can solve problems involving multiplication and division. •I can represent problems involving multiplication and division. •I can use place value to understand properties of operations to perform multi-digit arithmetic. •I can interpret whole-number quotients of whole numbers. •I can use multiplication and division within 100 to solve word problems. •I can apply properties of operations as strategies to multiply and divide. •I can understand division as an unknown factor problem. •I can solve two-step problems using the four operations.	**Duration:** 5 weeks	**Essential Questions:** ➢ How can you use division to find how many in each group or how many equal groups? What strategies can use to divide? ➢ How can you use the strategy act it out to solve problems with equal groups? How can you mode a division problem to find how many in each group? ➢ How can you model a division problem to find how many equal groups? How can you use models to solve division problems? ➢ How is division related to subtraction? ➢ How can you use arrays to solve ➢ division problems? ➢ How can you write a set of related multiplication and division facts? ➢ What are the rules for dividing with 1 and 0? ➢ What does dividing by 2

		mean? ➢ What strategies can you use to divide by 10? ➢ What does dividing by 5 mean? ➢ What strategies can you use to divide by 3? ➢ What strategies can you use to divide by 4, 6, 7,8 and 9? ➢ How can you use the strategy act it out to solve two-step problems? ➢ Why are there rules such as the order of operations?
Learning Activities: Week 1- Pre-test. We will be starting with Model Division/problem solving. Students will solve division problems by using the strategy act it out. We will also discuss and use models to explore the meaning of sharing division. We will cover vocabulary words such as divide and equal groups. We will begin working on strategies to divide by 2 and 10. Week 2- We will use numbers of equal groups in this week's lessons. Students will learn	**Assessments:** Pre assessment End of Lesson assessments Mid-Chapter Assessment Post Assessment	**Resources/Materials:** Pre assessment Anchor Charts Smartboard Go Math book Modeled examples Mid assessments Chapter check assessments Reteach outline Enrich Activity Post assessment

how to use models to explore the meaning of quotative (measurement) division. We will also learn to model with bar models. Students will model division by using equal groups and bar models. We will cover vocabulary words like dividend, divisor, and quotient. We will be working on ways to divide by 5, 3 and 4 this week. Week 3- Algebra- Relate Subtraction and Division. Students this week will work on using repeated subtraction and a number line to relate subtraction to division. Students will learn to model division by using arrays. Students will also learn to use a bar models and arrays to relate multiplication and division as inverse operations. The vocabulary word we will cover throughout this week will be inverse operations. We will be working on ways to divide by 6 and 7.		
Week 4- Algebra-Write related facts. Students will learn how to write related multiplication and division. We will also divide using the rules for 1 and 0. Vocabulary words for the week are related facts, factor, product, and the Identity Property of Multiplication. This week we will be working on ways to divide by 9.		

Week 5- Students will solve two-step problems by using the strategy by acting it out. Students will also perform operations in order when there are no parentheses. We will work on reviewing everything covered in this unit. We will complete a study guide and take our final assessment.		
Academic Vocabulary:	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to	**Notes:**	

look at their goals and talk with a neighbor on how close they were to meeting their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 5: Time, Length, Liquid Volume, and Mass
MLS: 3.MD.A 3.MD.B 3.MD.A.1 3.MD.A.2 3.MD.B.4	**Priority Standards:** 3.MD.A-Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. 3.MD.B-Represent and interpret data.	**Supporting Standards:** 3.MD.A.1: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. 3.MD.B.4 Represent and interpret data. Generate measurement data by measuring lengths using

		rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters..
Prerequisite Skills: • I can tell time to the nearest minute. • I can tell the difference between A.M. and P.M. • I can measure time intervals. • I can use time intervals. • I can measure the length of different items. • I can estimate liquid volume. • I can measure liquid Volume. • I can estimate mass. • I can measure mass. • I can solve problems about liquid volume. • I can solve problems about mass.	**Duration:** 5 weeks	**Essential Questions:** • How can you tell time to the nearest minute? • How can you tell when to use A.M. and P.M. with time? • How can you measure elapsed time in minutes? • How can you find a starting time or an ending time when you know the elapsed time? • How can you use the strategy draw a diagram to solve problems about time? • How can you generate measurement data and show the data on a line plot? • How can you estimate and measure liquid volume in metric units? • How can you estimate and measure mass

		in metric units? • How can you use models to solve liquid volume and mass problems?
Learning Activities: • Read, write, and tell time on analog and • digital clocks to the nearest minute. • Decide when to use A.M. and P.M. when • telling time to the nearest minute. • Use a number line or an analog clock to • measure time intervals in minutes. • Use a number line or an analog clock to • add or subtract time intervals to find • starting times or ending times. • Solve problems involving addition and • subtraction of time intervals by using the strategy draw a diagram. • Measure length to the nearest half or • fourth inch and use measurement data to make a line plot.	**Assessments:** ➢ *Pre assessment* ➢ *End of Lesson assessments* ➢ *Mid-Chapter Assessment* ➢ *Post Assessment*	**Resources/Materials:** ➢ Go MATH Workbooks ➢ Enrichment Book ➢ Reteach book ➢ Charting paper ➢ White Board/markers ➢ Math practice worksheets ➢ Pre assessment ➢ End of Lesson assessments ➢ Mid-Chapter Assessment ➢ Post Assessment

• Estimate and measure liquid volume in • liters. • Estimate and measure mass in grams and kilograms. • Add, subtract, multiply, or divide to solve problems involving liquid volumes or masses.		
Academic Vocabulary: • A.M. • elapsed time • gram (g) • kilogram (kg) • liquid volume • liter (L) • mass • midnight • minute • noon • P.M.	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to look at their goals and talk with a neighbor on how close they were to meeting	**Notes:**	

their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 6: Perimeter and Area
MLS: 3.MD.C 3.MD.C.5 3.MD.C.6 3.MD.C.7 3.MD.D.8	**Priority Standards:** **3.MD.C:** Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	**Supporting Standards:** 3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. 3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement. b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. 3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). 3.MD.C.7 Relate area to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. 3.MD.C.7 Relate area to the operations of multiplication

		and addition. b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. 3.MD.C.7 Relate area to the operations of multiplication and addition. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems. 3.MD.D.8 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. Solve real world and mathematical problems involving perimeters of polygons, including finding

		the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
Prerequisite Skills: ➢ I can model perimeter. ➢ I can find the perimeter. ➢ I can find the unknown lengths. ➢ I can understand area. ➢ I can use area models to solve problems. ➢ I can measure the area of a rectangle. ➢ I can measure the area of combined triangles. ➢ I can determine the length of a shape that has the same area, but different perimeters.	**Duration:** 5 weeks	**Essential Questions:** • How can you solve problems involving perimeter and area? • How can you find perimeter? • How can you measure perimeter? • How can you find the unknown length of a side in a plane figure when you know its perimeter? • How is finding the area of a figure different from finding the perimeter of a figure? • How can you find the area of a plane figure? • Why can you multiply to find the area of a rectangle? • How can you use perimeter to compare rectangles with the same area? • How can you use the

		strategy find a pattern to solve area problems? • How can you break apart a figure to find the area? • How can you use area to compare rectangles with the same perimeter?
Learning Activities: ➢ Explore perimeter of polygons by counting units on grid paper. ➢ Estimate and measure perimeter of polygons using inch and centimeter rulers. ➢ Find the unknown length of a side of a polygon when you know its perimeter. ➢ Explore perimeter and area as attributes of polygons. ➢ Estimate and measure area of plane figures by counting unit squares. ➢ Relate area to addition and multiplication by using area models. ➢ Solve area problems by using the strategy find a pattern. ➢ Apply the Distributive Property to area models and to find the area of combined rectangles.	**Assessments:** ➢ *Pre assessment* ➢ *End of Lesson assessments* ➢ *Mid-Chapter Assessment* ➢ *Post Assessment*	**Resources/Materials:** ➢ Go MATH Workbooks ➢ Enrichment Book ➢ Reteach book ➢ Charting paper ➢ White Board/markers ➢ Math practice worksheets ➢ Pre assessment ➢ End of Lesson assessments ➢ Mid-Chapter Assessment ➢ Post Assessment

➢ Compare areas of rectangles that have the same perimeter. ➢ Compare perimeters of rectangles that have the same area.		
Academic Vocabulary: addition array centimeter (cm) Distributive Property foot (ft) inch (in.) inverse operations length meter (m) multiplication pattern rectangle repeated addition unit width area perimeter square unit unit square	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to look at their goals and talk with a	**Notes:**	

neighbor on how close they were to meeting their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.		

Richwoods R-VII Curriculum Form

Grade Level: 3rd	Subject Area: Math	Unit Name: UNIT 6: Perimeter and Area
MLS: 3.G.A 3.G.A.2 3.G.A.1	**Priority Standards:** • **3.G.A:** Reason with shapes and their attributes.	**Supporting Standards:** • 3.G.A.1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. • 3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole
Prerequisite Skills: ➢ I can identify polygons. ➢ I can draw quadrilaterals. ➢ I can describe anles in plane shapes. ➢ I can classify plane shapes. ➢ I can describe two-dimensional	**Duration:** 5 weeks	**Essential Questions:** • What are some ways to describe two-dimensional shapes? • How can you describe angles in plane shapes?

Richwoods R-VII Curriculum Form

shapes. ➢ I can describe triangles. ➢ I can classify quadrilaterals. ➢ I can relate shapes, fractions, and area. ➢ I can describe sides of polygons.		• How can you use line segments and angles to make polygons? • How can you describe line segments that are sides of polygons? • How can you use sides and angles to help you describe quadrilaterals? • How can you draw quadrilaterals? • How can you use sides and angles to help you describe triangles? • How can you use the strategy draw a diagram to classify plane shapes? • How can you divide shapes into parts with equal areas and write the area as a unit fraction of the whole?
Learning Activities: • Identify and describe attributes of plane shapes. • Describe angles in plane shapes. • Identify polygons by the number of sides they have. • Determine if lines or line	**Assessments:** ➢ *Pre assessment* ➢ *End of Lesson assessments* ➢ *Mid-Chapter Assessment* ➢ *Post Assessment*	**Resources/Materials:** ➢ Go MATH Workbooks ➢ Enrichment Book ➢ Reteach book ➢ Charting paper ➢ White Board/markers ➢ Math practice worksheets

Richwoods R-VII Curriculum Form

segments are intersecting, perpendicular, or parallel. • Describe, classify, and compare quadrilaterals based on their sides and angles. • Draw quadrilaterals. • Describe and compare triangles based on the number of sides that have equal length and by their angles. • Solve problems by using the strategy draw a diagram to classify plane shapes. • Partition shapes into parts with equal areas and express the area as a unit fraction of the whole.		➢ Pre assessment ➢ End of Lesson assessments ➢ Mid-Chapter Assessment ➢ Post Assessment
Academic Vocabulary: • angle • closed shape • hexagon • intersecting lines • line • line segment • open shape • parallel lines • perpendicular lines • point • polygon • quadrilateral • ray • rectangle • rhombus • right angle • square • trapezoid	**Enrichment Activities and Resources:** Students will be able to complete the enrich worksheets and puzzles for each lesson or when needed.	**Reteach Activities and Resources:** We will work on basic skills in RTI time and tutoring. We will have extra time for small group practice and one on one with the teacher.

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• triangle • Venn diagram • vertex		
Reflection: **Student:** I helped lead students to self- reflect about their personal goals regarding the unit objectives by conferencing with students individually. We set goals before the lesson started after each written assessment we went over what they missed and how close they were to meeting their goal. If they met their goal we would set new goals that were harder to reach. Thought out the unit I would encourage students to look at their goals and talk with a neighbor on how close they were to meeting their new and old goals. **Teacher:** If I could re teach this unit differently I would do a lot more group assignments. I would also like to do more hands on activities. I would level my groups by ability level and have students work on the areas they are struggling in.	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Add and Subtract Fractions

Standards:	Priority Standards:	Supporting Standards:
4.NF.B.3	4.NF.B.3 Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.	4.NF.B.3a Understand that to add and subtract fractions they must refer to parts of the same whole. 4.NF.B.3b Decompose a fraction by writing it as a sum of fractions with the same denominator. Write fractions greater than 1 as mixed numbers and write mixed numbers as fractions greater than 1. 4.NF.B.3c Add and subtract mixed numbers. Use the properties of addition to add fractions. 4.NF.B.3d Use models to represent and find sums involving

		fractions. Use models to represent and find differences involving fractions. Solve word problems involving addition and subtraction with fractions. Use the strategy act it out to solve multistep fraction problems.
Prerequisite Skills: Before grade 4, students learned that a	Duration: 14 days	Essential Questions:

fraction represents a number of parts from a whole. Students also learned how to use models to compare and order fractions that already have the same numerator or the same denominator. Students were also introduced to the idea of equivalent fractions..		4.NF.B.3a When can you add or subtract parts of a whole? 4.NF.B.3b How can you write a fraction as a sum of fractions with the same denominators? How can you rename mixed numbers as fractions greater than 1 and rename fractions greater than 1 as mixed numbers? 4.NF.B.3c How can you add and subtract mixed numbers with like denominators? How can you rename a mixed number to help you subtract? How can you add fractions with the like denominators using the properties of addition?

		4.NF.B.3 d **How can you add fractions with like denominators using models?** **How can you subtract fractions with like denominators using models?** **How can you add and subtract fractions with like denominators?** **How can you use the strategy act it out to solve multistep problems with fractions?**
Learning Activities: **Vocabulary Activity**	**Assessments: Pre-assessment**	**Resources/Materials** **Go Math Text** **Interactive Notebooks**

Model it Graphic Organizer Animated Math Videos Math on the Spot Videos Personal White Board Exercises	End of lesson assessment Mid chapter assessment Post assessment	Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments
Academic Vocabulary: mixed number, unit fraction, Associative Property of Addition, Commutative Property of Addition, denominator, fraction, numerator, simplest form		Reteach Activities and Resources: Go Math Text Interactive notebook

		Reteach Chapter Resources **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection: Since this unit takes a fairly good memorization of multiplication facts, it is evident that I need to intervene in that concept earlier on for those students that are struggling with facts. By using RTI, tutoring, and parent communication, I will need to work even harder to have ALL students master their facts.	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Fractions and Decimals & Relate Fractions and Decimals

Standards:	Priority Standards:	Supporting Standards:
4.NF.A.1 4.NF.A.2 4.NF.C.6 4.NF.C.5 4.MD.A.2 4.NF.C.7	4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. 4.NF.A.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model. 4.NF.C.6 Record tenths as fractions and as decimals. Record hundredths as fractions and as	

	decimals. How can you relate fractions, decimals, and money? 4.NF.C.5 Record tenths and hundredths as fractions and decimals. Add fractions when the denominators are 10 or 100. 4.MD.A.2 Solve problems by using the strategy act it out. 4.NF.C.7 Compare decimals to hundredths by reasoning about their size.	
Prerequisite Skills: Before Grade 4, students learned about fractions and how they related to whole numbers. Students understood fractions as being a number of parts from one whole.	Duration: 24 Days	Essential Questions: 4.NF.C.6 How can you record tenths as fractions and decimals?

Students were also introduced to fraction comparisons. I		**How can you record hundredths as fractions and decimals?** **4.NF.C.5** **How can you record tenths and hundredths as fractions and decimals?** **How can you add fractions when the denominators are 10 or 100?** **4.MD.A.2** **How can you use the strategy act it out to solve problems that use money?** **4.NF.C.7** **How can you compare decimals?**

Learning Activities: Vocabulary Activity Model it Graphic Organizer Animated Math Videos Math on the Spot Videos Personal White Board Exercises	Assessments: Pre-assessment End of lesson assessment Mid chapter assessment Post assessment	Resources/Materials Go Math Text Interactive Notebooks Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments
Academic Vocabulary:		Reteach Activities and

decimal, decimal point, tenth, compare, fraction, place value, whole hundredth equivalent decimals, equivalent fractions		**Resources:** **Go Math Text** **Interactive notebook** **Reteach Chapter Resources** **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Divide by 1-digit numbers

Standards:	Priority Standards:	Supporting Standards:
4.NBT.B.6 4.OA.A.2 4.OA.A.3	4.NBT.B.6 Use multiples to estimate quotients. Use models to divide whole numbers that do not divide evenly. Divide tens, hundreds, and thousands by whole numbers to 10. Use compatible numbers to estimate quotients. Use the Distributive Property to find quotients. Use repeated subtraction and multiples to find quotients. Use partial quotients to divide. Use base-ten blocks to model division with regrouping. Use place value to determine where to place the first digit of a quotient. Divide multidigit numbers by 1-digit divisors.	

	Solve problems by using the strategy draw a diagram 4.OA.A.2 Solve problems by using the strategy draw a diagram. 4.OA.A.3 Use remainders to solve division problems.	
Prerequisite Skills: Before Grade 4, students used models, such as counters, bar models, and arrays, to divide items into equal groups. Students related the operations of subtraction and multiplication to division. They learned to use related multiplication facts to find quotients and the special rules associated with division by 0 and 1.	Duration: 18 days	Essential Questions: How can you use multiples to estimate quotients? How can you use models to divide whole numbers that do not divide evenly? How can you divide numbers through thousands by whole numbers to 10?

		How can you use compatible numbers to estimate quotients? How can you use the Distributive Property to find quotients? How can you use repeated subtraction and multiples to find quotients? How can you use partial quotients to divide by 1-digit divisors? How can you use base-ten blocks to model division with regrouping? How can you use place value to know where to place the first digit in the quotient? How can you divide multidigit numbers and check your answers? 4.OA.A.2 How can you use the strategy draw a diagram to

		solve multistep division problems?
Learning Activities: Vocabulary Activity Model it Graphic Organizer Animated Math Videos Math on the Spot Videos Personal White Board Exercises	Assessments: Pre-assessment End of lesson assessment Mid chapter assessment Post assessment	Resources/Materials Go Math Text Interactive Notebooks Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments

Academic Vocabulary: **multiple, counting number, factor, multiplication, product remainder, divide, dividend, division, divisor, quotient hundreds, ones, place value, tens, thousands compatible numbers Distributive Property, partial quotient,**		**Reteach Activities and Resources:** **Go Math Text** **Interactive notebook** **Reteach Chapter Resources** **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Place Value, Addition, and Subtraction to One Million

Standards:	Priority Standards:	Supporting Standards:
4.NBT.A.1 4.NBT.A.2 4.NBT.A.3 4.NBT.A.4	4.NBT.A.1 Model the 10-to-1 relationship among place-value positions in the base-ten number system. Rename whole numbers by regrouping. 4.NBT.A.2 Read and write whole numbers in standard form, word form, and expanded form. Compare and order whole numbers based on the values of the digits in each number. 4.NBT.A.3 Round a whole number to any place. 4.NBT.B.4 Add whole numbers and determine whether solutions to addition problems are reasonable. Subtract whole numbers and determine whether solutions to subtraction problems are reasonable. Use the strategy draw a diagram to solve	

	comparison problems with addition and subtraction.	
Prerequisite Skills: Before Grade 4, students learned to estimate and find sums and differences involving whole numbers within 1,000. Students used mental math or strategies like "break apart" to add whole numbers. They also used mental math or strategies to subtract like "combining place values."	**Duration: 15 days**	**Essential Questions:** 4.NBT.A.1 How can you describe the value of a digit? How can you rename a whole number? 4.NBT.A.2 How can you read and write numbers through hundred thousands? How can you compare and order numbers? 4.NBT.A.3 How can you round numbers? 4.NBT.B.4

		How can you add whole numbers? **How can you subtract whole numbers?** **How can you use the strategy draw a diagram to solve comparison problems with addition and subtraction?**
Learning Activities:	**Assessments: Pre-assessment**	**Resources/Materials**

Vocabulary Activity Model it Graphic Organizer Animated Math Videos Math on the Spot Videos Personal White Board Exercises	End of lesson assessment Mid chapter assessment Post assessment	Go Math Text Interactive Notebooks Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments
Academic Vocabulary: estimate, round, regroup, addend, addition, difference, digit, place value expanded form, period,		Reteach Activities and Resources: Go Math Text

standard form, word form, sum compare, equal sign, greater than sign, less than sign, number line, order		**Interactive notebook** **Reteach Chapter Resources** **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Units 2 & 3 Place Value and Operations with Whole Numbers

Standards:	Priority Standards:	Supporting Standards
4.OA.A.1 4.OA.A.2 4.OA.A.3 4.NBT.B.5	4.OA.A.1 Relate multiplication equations and comparison statements. 4.OA.A.2 Solve problems involving multiplicative comparison and additive comparison. 4.OA.A.3 Represent and solve multistep problems using equations. 4.NBT.B.5 Multiply tens, hundreds, and thousands by whole numbers through 10. Estimate products by rounding and determine if exact answers to multiplication problem. Use the Distributive Property to multiply a 2-digit number by a 1-digit number.lems are reasonable. Use expanded form to multiply a multidigit number by a 1-digit number.	

	Use place value and partial products to multiply a multidigit number by a 1-digit number. Use mental math and properties to multiply a multidigit number by a 1-digit number. Use the draw a diagram strategy to solve multistep problems. Use regrouping to multiply a 2-digit number by a 1-digit number. Use regrouping to multiply a multidigit number by a 1-digit number.	
Prerequisite Skills: Before 4th grade, students learned about multiplying within 100. They related concepts of multiplication to addition by realizing multiplication can be interpreted as addition of equal groups. They also modeled multiplication by skip counting and using arrays. Students used strategies and properties of operations to learn to fluently multiply within 100. They also developed	**Duration: 19 days**	**Essential Questions:** 4.NBT.A.1 How can you describe the value of a digit? How can you rename a whole number? 4.NBT.A.2 How can you read and

multiplication strategies for multiples of 10. This prepares students for multiplying with multi digit numbers.		write numbers through hundred thousands? How can you compare and order numbers? 4.NBT.A.3 How can you round numbers? 4.NBT.B.4 How can you add whole numbers? How can you subtract whole numbers? How can you use the strategy draw a diagram to solve comparison problems with addition and subtraction?
Learning Activities:	Assessments: Pre-assessment	Resources/Materials Go Math Text

Personal Math Trainer Math on the Spot Video Animated math models Manipulatives Smartboard games and activities	End of lesson assessment Mid chapter assessment Post assessment	Interactive Notebooks Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments
Academic Vocabulary: Distributive Property, partial product, estimate, expanded form , factor, round		Reteach Activities and Resources: Go Math Text

		Interactive notebook **Lesson Quick Check** **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection: Place value is a difficult concept even for fourth graders. Base ten seems to be a concept that needs to be addressed in earlier grades with much more emphasis. I will make sure to increase time spent and insure understanding before moving on to next standard.	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Relative Sizes of Measurement Units

Standards:	Priority Standards:	Supporting Standards:
4.MD.A.1 4.MD.A.2 4.MD.B.4	4.MD.A.1 Solve problems involving measurement and the conversion of measurements from a larger unit to a smaller unit. 4.MD.B.4 Interpret and Represent Data	4.MD.A.1 Use benchmarks to understand relative sizes of measurement units. Use models to compare customary units of length. Use models to compare customary units of weight. Use models to compare customary units of liquid volume. Use models to compare metric units of length. Compare metric units of mass and liquid volume. Use models to compare units of time. Use patterns to write number pairs for measurement units. 4.MD.B.4

		Make and interpret line plots with fractional data. **4.MD.A.2** **Use the strategy "Draw a Diagram" to solve elapsed time problems.** **Solve problems involving mixed measures.**
Prerequisite Skills: **Before grade 4, students learned some basic units for length (inches), liquid volume (liters), and mass (grams). Students also learned about the units of time (minutes and hours).**	**Duration: 14 days**	**Essential Questions:** **4.MD.A.1** **How can you use benchmarks to understand**

Students also learned how to find time intervals given a starting and ending time, as well as how to solve basic elapsed time problems.		**the relative size of measurement units?** **How can you use models to compare customary units of length?** **How can you use models to compare customary units of weight?** **How can you use models to compare customary units of liquid volume?** **How can you use models of metric units of length?** **How can you compare metric units of mass and liquid volume?** **How can you use models to compare units of time?** **How can you use patterns to write number pairs for measurement units?** **4.MD.B.4** **How can you make and interpret line plots with**

		fractional data? **4.MD.A.2** **How can you use the strategy "Draw a Diagram" to solve elapsed time problems?**
Learning Activities: **Vocabulary Activity** **Model it** **Graphic Organizer** **Animated Math Videos** **Math on the Spot Videos**	**Assessments: Pre-assessment** **End of lesson assessment** **Mid chapter assessment** **Post assessment**	**Resources/Materials** **Go Math Text** **Interactive Notebooks** **Smartboard Activities** **Enrichment Text** **Reteach Text** **Chart Paper** **Practice Sheets** **Assessments**

Personal White Board Exercises **Measure the recess equipment and playground**		
Academic Vocabulary: **cup, decimeter, fluid ounces, gallon, half gallon, line plot, millimeter, milliliter, ounce, pint, pound, quart, second, ton**		**Reteach Activities and Resources:** **Go Math Text** **Interactive notebook** **Reteach Chapter Resources** **Mid-chapter Midpoint** **Chapter Review**

		Chapter Test **Personal Math Trainer**
Reflection: After saving this unit for last this year, I am thinking that I need to find a few more real world activities to get them motivated to tackle this concept. I did find some valuable ways to help the students to recall what operation to use when converting. During the year, it would be beneficial to solidly get down the customary and metric units so that the terms become common language.	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level: 4	Subject Area: Math	Unit Name: Add and Subtract Fractions

Standards:	Priority Standards:	Supporting Standards:
4.NF.B.3	4.NF.B.3 Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.	4.NF.B.3a Understand that to add and subtract fractions they must refer to parts of the same whole. 4.NF.B.3b Decompose a fraction by writing it as a sum of fractions with the same denominator. Write fractions greater than 1 as mixed numbers and write mixed numbers as fractions greater than 1. 4.NF.B.3c Add and subtract mixed numbers. Use the properties of addition to add fractions. 4.NF.B.3d Use models to represent and find sums involving

		fractions. **Use models to represent and find differences involving fractions.** **Solve word problems involving addition and subtraction with fractions.** **Use the strategy act it out to solve multistep fraction problems.**
Prerequisite Skills: **Before grade 4, students learned that a**	**Duration: 14 days**	**Essential Questions:**

fraction represents a number of parts from a whole. Students also learned how to use models to compare and order fractions that already have the same numerator or the same denominator. Students were also introduced to the idea of equivalent fractions..		4.NF.B.3a When can you add or subtract parts of a whole? 4.NF.B.3b How can you write a fraction as a sum of fractions with the same denominators? How can you rename mixed numbers as fractions greater than 1 and rename fractions greater than 1 as mixed numbers? 4.NF.B.3c How can you add and subtract mixed numbers with like denominators? How can you rename a mixed number to help you subtract? How can you add fractions with the like denominators using the properties of addition?

		4.NF.B.3 d **How can you add fractions with like denominators using models?** **How can you subtract fractions with like denominators using models?** **How can you add and subtract fractions with like denominators?** **How can you use the strategy act it out to solve multistep problems with fractions?**
Learning Activities: **Vocabulary Activity**	**Assessments: Pre-assessment**	**Resources/Materials** **Go Math Text** **Interactive Notebooks**

Model it Graphic Organizer Animated Math Videos Math on the Spot Videos Personal White Board Exercises	End of lesson assessment Mid chapter assessment Post assessment	Smartboard Activities Enrichment Text Reteach Text Chart Paper Practice Sheets Assessments
Academic Vocabulary: mixed number, unit fraction, Associative Property of Addition, Commutative Property of Addition, denominator, fraction, numerator, simplest form		Reteach Activities and Resources: Go Math Text Interactive notebook

		Reteach Chapter Resources **Mid-chapter Midpoint** **Chapter Review** **Chapter Test** **Personal Math Trainer**
Reflection: Since this unit takes a fairly good memorization of multiplication facts, it is evident that I need to intervene in that concept earlier on for those students that are struggling with facts. By using RTI, tutoring, and parent communication, I will need to work even harder to have ALL students master their facts.	**Notes:**	

Unit of Instruction Organizer

Jason Merseal 6 years experience

School Year	2016-2017
Building	Richwoods Elem.
Subject Area	Math
Unit of Study	5TH Grade Number Sense and Operations in Base Ten-Powers of 10

Grade Levels

5

Ready for Scoring

Yes

UOI Element 1 - List the Board of Education-approved content standard(s) addressed in this Unit of Instruction. Align the unit objectives with the standard(s) and curriculum.

Unit Objectives – Write out the specific unit objectives that address the Board of Education-approved standard(s) and curriculum.

Prioritized or Power Standard – Write out the standard(s) your instruction will support.

Powers of 10

5.NBT.A.3

Power Objectives

I can demonstrate an understanding that in a multi digit number, a digit represents1/10 times what it would represent in the place to its left. I can demonstrate that a digit represents ten times what it would represent in the place to its right.

Other Objectives

Representations of Numbers-5.NBT.A.1

Comparing Numbers-5.NBT.A.2

Rounding Numbers-5.NBT.A.5

UOI Element 2 - Provide essential and guiding questions that fully capture the unit objectives (i.e., questions that focus student attention on meaningful activities leading to desired learning).

UOI Element 3 - Indicate whether essential and guiding questions require higher-level thinking according to Depth of Knowledge (DOK) level.

REFERENCE NOTE FOR UOI Element 2 and UOI Element 3:

Essential question(s) target the unit objective(s) and frame the UOI learning goal. These questions promote higher-level thinking and deep, enduring understanding. These cannot be answered in one sentence, and set the stage for further questions. These are open-ended, arguable, complex, meaningful to students' real lives, and relate to problems in the classroom. These form the basis of inquiry-based learning. These serve as an umbrella for other guiding questions and are complex enough to be broken down into smaller, guiding questions. The following are examples of essential questions:

- What is identity?
- What is revolution?
- What is healthful eating?
- How should this be modeled?
- How are the four basic math operations related to each other?
- How do writers draw in readers?
- How do animals change? (Early Childhood Education)
- What are numbers? (Early Childhood Education)

Guiding question(s) are more detailed questions that support the essential question. These questions assist the learner in answering the essential question(s) and cannot be answered in one sentence. These questions promote quality discussions and may lead to new questions. The following are examples of guiding questions:

- Who caused this?
- Who is involved?
- Why did this happen?

Essential Questions (See note at the end of the Unit of Instruction Organizer.)

What is a power?	DOK: Level One
What are place values, and where is each located?	
How does the direction of a number change the value of all numbers around it?	
What numbers occur in the number system?	

Guiding Questions (See note at the end of the Unit of Instruction Organizer.)

Why do I need to learn this?	DOK: Level One
What impact can this have on my overall growth and development?	
Where can I use this today and in the future?	
What happens when I multiply a number by a power of ten?	
What happens when I divide a number by a power of ten?	
How does the position of a number affect it's value?	

UOI Element 4 - Indicate how the instructional elements link directly to the unit objectives.

What will students be asked to do? (e.g., learner activities, assignments, and assessments)	**Which unit objective does this support?**
Students will be asked to identify each place value, and will be asked what the result is when looking at the place value to both the right and left of a given place value.	Powers of 10

Note: Place documentation in Appendices A, B, and C.

UOI Element 5 - Describe the process of formative assessment to inform instruction and summative assessment to evaluate student learning.

What formative assessment(s) will you use?

I will use assessments from Study Island in both a Pre-test and Post Test format. I will assess learning with the use of dry erase boards and independent Study Island sessions on the topic Powers of 10, Rounding Numbers, Comparing Numbers and Representations of Numbers. I will also give worksheets to those who have not developed a mastery understanding of the subject material in Powers of 10, Rounding Numbers, Comparing Numbers and Representations of Numbers. I will also pull struggling students to my Smartboard for more personal education.

Describe how results of formative assessment(s) inform changes in instruction to meet student needs.

The results of formative assessment determine which course of action that I take with each student. Some will grasp the material in a timely fashion. Those students will be given the freedom to explore the topic in a shorter time-frame. Those who do not understand the material as well will have small group lessons, and if needed, individual attention. These lessons as mentioned above may include dry erase, Smartboard activities and independent Study Island sessions until a developed goal is reached by the student.

What summative assessment(s) will you use?

The summative assessment used will be a Post Test format on Study Island on multiple topics that will include Powers of 10, Representations of Numbers, Comparing Numbers and Rounding Numbers.

Describe the summative assessment(s) to evaluate student learning. (How will you know the students met the learning objectives? Why are you giving that particular assessment? What will it tell you?)

I will know that students have met the learning objective when I see the results of the test. Study Island gives a detailed listing of any incorrect answers. Should there be an answer(s) that most of the students struggled with, I will address that particular problem(s) with all students on my Smartboard. The reason that I am giving this particular assessment is to gauge students' understanding of place value, and the effect of a given place value on neighboring place values. This will tell me that students understand that as a place value moves to the left that it increases by ten times, and as a place value moves to the right, it will decrease by ten times.

Note: Place documentation in Appendix D.

UOI Element 5b - Student Growth Measure (SGM)

NOTE: If your district is opting to use the NEE UOI as the measure of student learning, you must complete this section. While this section is not scored with the NEE rubric, it is provided for your use in documenting the measurement of student learning. The measurement of SGM is a locally-defined procedure or administrative procedure.

What instructionally sensitive assessment(s) will you use to show student growth? This may include assessment(s) listed above and/or other assessments. (Ideally assessment(s) should be valid, reliable, well-constructed, and be accurately scored. Assessment(s) should be selected that target important learning objectives, measure some higher DOK levels, and emphasize processes and complex knowledge. They should be an adequate tool for making inferences about your ability to promote student learning.) *NOTE: The ESEA Waiver indicates that state assessment be used as part of the SGMs where available and appropriate.

Objective	Assessments
I can demonstrate an understanding that in a multi digit number, a digit represents1/10	

times what it would represent in the place to its left. I can demonstrate that a digit represents ten times what it would represent in the place to its right.

Assessments

Assessment(s)	*Assessment Type*	*Number of Students*	*Number Meeting Target*	*Percentage Meeting Target*
A Pre-test and Post Test on Representations of Numbers, Comparing Numbers, Powers of Ten and Rounding Numbers	T	14	9	64.3%

Comments

The data above is for Powers of Ten only, but the process for all lessons is the same. Students were given a Pre-test in which 0/14 were passing. The subject Powers of Ten was then introduced to the students. Various methods were used to support the topic. We used the Smartboard to do a whole class lesson, followed by independent lessons on Study Island, using Chromebooks. Once data was collected. I went over each student's individual test with them. If a student received a blue ribbon on Study Island, having completed a minimum of twenty questions, they were allowed to take the Post Test. If the student made below a 70% on that test, they were put into a remediation group, and we did more problems together on the Smartboard. I then gave each student more independent time on Study Island before giving a second Post Test.

Note: Place documentation in Appendix F.

UOI Element 6 - Identify effective research-based instructional strategies used in the unit.

Explain why you are using specific instructional strategies. Provide a description of key instructional strategies you will use and which lessons you will use them in. (You do not need to discuss all the instructional strategies.) Provide evidence of their effectiveness. (Cited evidence should be from credible sources, such as publications or presentations that have been reviewed by peers. Other examples include credible textbooks, trade books, journals, the What Works Clearinghouse review, and publications and papers produced by nationally-recognized research or higher-education institutions. Include dates.)

I used Hattie's strategies of space versus mass and feedback. I like to cycle back through what we have learned, and I give constant feedback.

UOI Element 7 - Describe the instructional strategies used to differentiate instruction for diverse learners present in the classroom. Mark diverse learner categories that do not apply as "N/A" (Not Applicable).

Enrichment for accelerated learners

Accelerated learners are "pushed" ahead to the next topic in line with Study Island. This allows for a more one-to-one approach based on each student's growth ability.

Remediation for struggling learners (Tier 2/Tier 3)

Struggling learners are given more time and instruction via the use of dry erase boards and lessons done together on Study Island. Using dry erase boards gives me immediate answers so that I may give the student immediate feedback. It also gives me an understanding on where a student may error. I also use my Smartboard for small group sessions. I find that many students like the attention of the big screen and perform well under pressure. I will also review each student's Pre-test result question by question.

ELL

N/A

Other

N/A

UOI Element 8 - Describe how you lead students to self-reflect about their personal goals regarding the unit objectives.

Provide description with evidence.

Self reflection is self reflection. As I self reflect on how I may improve my teaching strategy, the student must also self reflect on how they may learn differently. I can and do encourage students to study beyond the classroom and to set goals, but only the student can actually self reflect, just as I, the teacher can self reflect.

Note: Place documentation in Appendix C.

UOI Element 9 - Describe supporting resources used to facilitate the learning process.

Provide a description of supporting resources, including technology, used to facilitate the learning process. Include samples, such as comparative student work samples/anchor papers, schedules/pacing guides, task outlines, scoring guides/rubrics, assessments, or other appropriate resources for instruction and learning.

I use Chromebooks in my classroom for students to access Study Island. I also use the Computer Lab when necessary. I encourage students to improve their understanding by utilizing the Smartboard under my supervision and to use their own technology at home should they have access.

Note: Place documentation in Appendix E.

UOI Element 10 - Describe how the UOI will improve family and community involvement in the learning process.

Describe how this UOI will help you improve family and community involvement in the learning process.

It is important for students and all people to know the value of money. By teaching Powers of 10, students will have a deeper understanding of money concepts, which is critical to their personal growth to aid themselves in the future. This also provides the community with skilled young people filled with knowledge about the concepts of money in dollars and cents, Students may be able to assist family

members in making a budget or simply knowing how to find a good investment. This, of course, is not based entirely on the Powers of 10 category. Students also gain independent growth for social development regardless of what they are used to seeing at home.

NOTE: Family involvement can occur at school or at home, such as supervising homework, volunteering at school, or attending learning activities. Families should be invited to be collaborators in their child's learning, but not be forced to do so. Involvement should be structured for success regardless of family resources. Research suggests this may be especially important for low-SES and ethnic minority students, and caution is warranted regarding homework because some parents lack skills, or might "help" in ways that cause confusion and/or tension. **Community involvement** can take many forms, such as guest speakers with content expertise, field trips to community sites relevant to the content, etc.

UOI Element 11 - Self-reflection about the UOI

How would you teach this unit differently as a result of submitting this UOI?

At this point in time, I would not teach it differently. I have a process that works for most students that gives them both independent practice and small group discussion with question and answer sessions.

NOTE: The purpose of this element is to help you improve the unit for your students. It is not scored. You may want to engage in dialogue with your principal, instructional coach, or team members as you reflect on the unit.

Appendix

NOTE: If your district uses other file storage systems (e.g., Google Drive), please ask your evaluator if you should use that system instead of uploading to the NEE Data Tool.

Appendix A: Lesson Sequence

This section should contain an overview or outline of unit lessons (scope and sequence).

Appendix B: Sample Lesson Plans

This section should contain samples of at least three class periods of lesson plans, including lesson objectives, student activities, and differentiated instructional strategies.

Appendix C: Sample Formative and Summative Assessments

Appendix D: Sample Student Work

This section should contain a range of student work, including samples from an accelerated student and a struggling student.

Appendix E: Resources and Materials

Appendix F: SGM Documentation and Individualized Student Data

There are various examples available on the web. For example, see Missouri's "Progress Tracker" at http://dese.mo.gov/sites/default/files/SLO-Handbook.pdfnone. **NOTE:** Make sure to remove any identifying student information (i.e., student names).

v 2018.5.24.1701

Unit of Instruction Organizer

Jason Merseal 6 years experience

School Year	2016-2017
Building	Richwoods Elem.
Subject Area	Math
Unit of Study	Number Sense and Operations in Base Ten II

Grade Levels

5

Ready for Scoring

Yes

UOI Element 1 - List the Board of Education-approved content standard(s) addressed in this Unit of Instruction. Align the unit objectives with the standard(s) and curriculum.

Unit Objectives – Write out the specific unit objectives that address the Board of Education-approved standard(s) and curriculum.

Prioritized or Power Standard – Write out the standard(s) your instruction will support.

Add and Subtract Whole Numbers and Decimals 5.NBT.A.6

Multiply Whole Numbers and Decimals 5.NBT.A.7

Divide Whole Numbers and Decimals 5.NBT.A.8

Power Objectives

I can add and subtract whole numbers and decimals

I can line up decimals to add or subtract

I can multiply whole numbers and decimals

I can determine where a decimal point belongs in the product

I can divide whole numbers and decimals

I can move a decimal point on a divisor to achieve the correct quotient

Other Objectives

None

UOI Element 2 - Provide essential and guiding questions that fully capture the unit objectives (i.e., questions that focus student attention on meaningful activities leading to desired learning).

UOI Element 3 - Indicate whether essential and guiding questions require higher-level thinking according to Depth of Knowledge (DOK) level.

REFERENCE NOTE FOR UOI Element 2 and UOI Element 3:

Essential question(s) target the unit objective(s) and frame the UOI learning goal. These questions promote higher-level thinking and deep, enduring understanding. These cannot be answered in one sentence, and set the stage for further questions. These are open-ended, arguable, complex, meaningful to students' real lives, and relate to problems in the classroom. These form the basis of inquiry-based learning. These serve as an umbrella for other guiding questions and are complex enough to be broken down into smaller, guiding questions. The following are examples of essential questions:

- What is identity?
- What is revolution?
- What is healthful eating?
- How should this be modeled?
- How are the four basic math operations related to each other?
- How do writers draw in readers?
- How do animals change? (Early Childhood Education)
- What are numbers? (Early Childhood Education)

Guiding question(s) are more detailed questions that support the essential question. These questions assist the learner in answering the essential question(s) and cannot be answered in one sentence. These questions promote quality discussions and may lead to new questions. The following are

examples of guiding questions:

- Who caused this?
- Who is involved?
- Why did this happen?

Essential Questions (See note at the end of the Unit of Instruction Organizer.)

Why do I need to know how to add, subtract, multiply and divide?	DOK: Level One
Why is the decimal placement important for all of the operations of math?	
How are the four basic mathematical operations related? How are the different?	

Guiding Questions (See note at the end of the Unit of Instruction Organizer.)

When will I use these concepts in life?	DOK: Level One
Where will I use these concepts in life?	

UOI Element 4 - Indicate how the instructional elements link directly to the unit objectives.

What will students be asked to do? (e.g., learner activities, assignments, and assessments)	**Which unit objective does this support?**
The students will be asked to take a Pre-test on Add and Subtract Whole Numbers and Decimals, Multiply Whole Numbers and Decimals and Divide Whole Numbers and Decimals. For each assignment, I will review the Pre-test with all students. I will then give them a worksheet and provide the students with an answer key so that they may check their answers. Students will ask any questions over the worksheet on the following day. I	Adding and Subtracting Whole Numbers and Decimals, Multiplying Whole

will give students time in class to work on Study Island. Those who achieve a blue ribbon will be allowed to take the Post Test. Those who do not will be given a worksheet for homework without provided answers. Questions over this worksheet will be answered the next class day, and we will do problems together on the Smartboard. Students will then take the Post Test.	Numbers and Decimals, and Multiplying Whole Numbers and Decimals.

Note: Place documentation in Appendices A, B, and C.

UOI Element 5 - Describe the process of formative assessment to inform instruction and summative assessment to evaluate student learning.

What formative assessment(s) will you use?

I will use dry erase boards to assess comprehension with immediate feedback. I will also use group and independent practice sessions using Study Island.

Describe how results of formative assessment(s) inform changes in instruction to meet student needs.

The formative assessments allow me to separate those who need my assistance on these topics from those who grasp the content. This allows me to "push" those who have higher levels of comprehension ahead, and also allows me to work with struggling students in a small group or individually.

What summative assessment(s) will you use?

The summative assessment used will be a Post Test format on Study Island on the topics of Adding, Subtracting, Multiplying and Dividing Whole Numbers and Decimals.

Describe the summative assessment(s) to evaluate student learning. (How will you know the students met the learning objectives? Why are you giving that particular assessment? What will it tell you?)

I will know that the students have met the learning objective by looking at the results of the Post Test. If there is a certain area that a student struggled, I can identify that content area and address this with each student based on his or her level of comprehension. I will select the questions for the summative, and this will tell me which area(s) that I will need to adjust my approach and which areas are sufficient.

Note: Place documentation in Appendix D.

UOI Element 5b - Student Growth Measure (SGM)

NOTE: If your district is opting to use the NEE UOI as the measure of student learning, you must complete this section. While this section is not scored with the NEE rubric, it is provided for your use in documenting the measurement of student learning. The measurement of SGM is a locally-defined procedure or administrative procedure.

What instructionally sensitive assessment(s) will you use to show student growth? This may include assessment(s) listed above and/or other assessments. (Ideally assessment(s) should be valid, reliable, well-constructed, and be accurately scored. Assessment(s) should be selected that target important learning objectives, measure some higher DOK levels, and emphasize processes and complex knowledge. They should be an adequate tool for making inferences about your ability to promote student learning.) *NOTE: The ESEA Waiver indicates that state assessment be used as part of the SGMs where available and appropriate.

Objective	Assessments
I can add and subtract whole numbers and decimals	
I can line up decimals to add or subtract	
I can multiply whole numbers and decimals	
I can determine where a decimal point belongs in the product	

I can divide whole numbers and decimals

I can move a decimal point on a divisor to achieve the correct quotient

Assessments

Assessment(s)	*Assessment Type*	*Number of Students*	*Number Meeting Target*	*Percentage Meeting Target*
Study Island Post Test	T	14	9	64.3%

Comments

These numbers are skewed a bit as the 2017-2018 version of Study Island will combine whole number and decimal operations, whereas the 2016-2017 version does not.

Note: Place documentation in Appendix F.

UOI Element 6 - Identify effective research-based instructional strategies used in the unit.

Explain why you are using specific instructional strategies. Provide a description of key instructional strategies you will use and which lessons you will use them in. (You do not need to discuss all the instructional strategies.) Provide evidence of their effectiveness. (Cited evidence should be from credible sources, such as publications or presentations that have been reviewed by peers. Other examples include credible textbooks, trade books, journals, the What Works Clearinghouse review, and publications and papers produced by nationally-recognized research or higher-education institutions. Include dates.)

I have used the John Hattie strategies of space versus mass and feedback. I try to bring learned material back into instruction at later dates, and I give constant feedback, so that the student knows where they stand.

UOI Element 7 - Describe the instructional strategies used to differentiate instruction for diverse learners present in the classroom. Mark diverse learner categories that do not apply as "N/A" (Not Applicable).

Enrichment for accelerated learners

Accelerated learners are "pushed" ahead to the next topic in line with Study Island. This allows for a more one-to-one approach based on each student's growth ability.

Remediation for struggling learners (Tier 2/Tier 3)

Struggling learners are given more time and instruction via the use of dry erase boards and lessons done together on Study Island. Using dry erase boards gives me immediate answers so that I may give the student immediate feedback.It also gives me an understanding on where a student may error. I also use my Smartboard for small group sessions. I find that many students like the attention of the big screen and perform well under pressure. I will also review each student's Pre-test result question by question.

ELL

N/A

Other

N/A

UOI Element 8 - Describe how you lead students to self-reflect about their personal goals regarding the unit objectives.

Provide description with evidence.

The students and I discuss their goals for improvement and if they have made progress toward their goals. They must self-reflect. I cannot do that for them.

Note: Place documentation in Appendix C.

UOI Element 9 - Describe supporting resources used to facilitate the learning process.

Provide a description of supporting resources, including technology, used to facilitate the learning process. Include samples, such as comparative student work samples/anchor papers, schedules/pacing guides, task outlines, scoring guides/rubrics, assessments, or other appropriate resources for instruction and learning.

I use Chromebooks in my classroom for students to access Study Island. I also use the Computer Lab when necessary. I encourage students to improve their understanding by utilizing the Smartboard under my supervision and to use their own technology at home should they have access.

Note: Place documentation in Appendix E.

UOI Element 10 - Describe how the UOI will improve family and community involvement in the learning process.

Describe how this UOI will help you improve family and community involvement in the learning process.

It is important for all members of a community to have an understanding of all of the four main mathematical operations, and how those are applied when using decimals. Students will have a deeper understanding of money concepts, which is critical to their growth. This provides the community with skilled young people who will have the tools to understand the value of dollars and cents.

NOTE: Family involvement can occur at school or at home, such as supervising homework, volunteering at school, or attending learning activities. Families should be invited to be collaborators in their child's learning, but not be forced to do so. Involvement should be structured for success regardless of family resources. Research suggests this may be especially important for low-SES and ethnic minority students, and caution is warranted regarding homework because some parents lack skills, or might "help" in ways that cause confusion and/or tension. **Community involvement** can take many forms, such as guest speakers with content expertise, field trips to community sites relevant to the content, etc.

UOI Element 11 - Self-reflection about the UOI

How would you teach this unit differently as a result of submitting this UOI?

This unit will be taught differently in the 2017-2018 school year, as Study Island has combined these lessons. The process of teaching each element will not change unless test scores reflect that a change is necessary.

NOTE: The purpose of this element is to help you improve the unit for your students. It is not scored. You may want to engage in dialogue with your principal, instructional coach, or team members as you reflect on the unit.

Appendix

NOTE: If your district uses other file storage systems (e.g., Google Drive), please ask your evaluator if you should use that system instead of uploading to the NEE Data Tool.

Appendix A: Lesson Sequence

This section should contain an overview or outline of unit lessons (scope and sequence).

Appendix B: Sample Lesson Plans

This section should contain samples of at least three class periods of lesson plans, including lesson objectives, student activities, and differentiated instructional strategies.

Appendix C: Sample Formative and Summative Assessments

Appendix D: Sample Student Work

This section should contain a range of student work, including samples from an accelerated student and a struggling student.

Appendix E: Resources and Materials

Appendix F: SGM Documentation and Individualized Student Data

There are various examples available on the web. For example, see Missouri's "Progress Tracker" at http://dese.mo.gov/sites/default/files/SLO-Handbook.pdfnone. **NOTE:** Make sure to remove any identifying student information (i.e., student names).

v 2018.5.24.1701

Unit of Instruction Organizer

Jason Merseal 6 years experience

School Year	2016-2017
Building	Richwoods Elem.
Subject Area	Math
Unit of Study	Fractional Operations

Grade Levels

5

Ready for Scoring

Yes

UOI Element 1 - List the Board of Education-approved content standard(s) addressed in this Unit of Instruction. Align the unit objectives with the standard(s) and curriculum.

Unit Objectives – Write out the specific unit objectives that address the Board of Education-approved standard(s) and curriculum.

Prioritized or Power Standard – Write out the standard(s) your instruction will support.

Add and Subtract Fractions- 5.NF.B.3

Multiplication with fractions- 5.NF.B.4.b

Division with Fractions- 5.NF.B.5.a

Power Objectives

I can solve problems involving addition and subtraction of fractions and whole numbers with unlike denominators.

I can calculate and interpret the product of a fraction by a whole number and a whole number by a fraction.

I can interpret and calculate a quotient of a unit by a non-zero whole number.

Other Objectives

Fractions and Decimals- 5.NF.A.1- I can demonstrate an understanding that parts of a whole can be expressed as fractions and/or decimals.

Area-Fractional Lengths- 5.NF.B.4.a- I can recognize that the relationship between multiplying fractions and finding the areas of rectangleswith fractional side lengths.

UOI Element 2 - Provide essential and guiding questions that fully capture the unit objectives (i.e., questions that focus student attention on meaningful activities leading to desired learning).
UOI Element 3 - Indicate whether essential and guiding questions require higher-level thinking according to Depth of Knowledge (DOK) level.

REFERENCE NOTE FOR UOI Element 2 and UOI Element 3:

Essential question(s) target the unit objective(s) and frame the UOI learning goal. These questions promote higher-level thinking and deep, enduring understanding. These cannot be answered in one sentence, and set the stage for further questions. These are open-ended, arguable, complex, meaningful to students' real lives, and relate to problems in the classroom. These form the basis of inquiry-based learning. These serve as an umbrella for other guiding questions and are complex enough to be broken down into smaller, guiding questions. The following are examples of essential questions:

- What is identity?
- What is revolution?
- What is healthful eating?
- How should this be modeled?
- How are the four basic math operations related to each other?
- How do writers draw in readers?
- How do animals change? (Early Childhood Education)
- What are numbers? (Early Childhood Education)

Guiding question(s) are more detailed questions that support the essential question. These questions assist the learner in answering the essential question(s) and cannot be answered in one sentence. These questions promote quality discussions and may lead to new questions. The following are examples of guiding questions:

- Who caused this?
- Who is involved?
- Why did this happen?

Essential Questions (See note at the end of the Unit of Instruction Organizer.)

What is a fraction?	DOK: Level One
What does a fraction represent?	
How can I use a fraction?	
What is area, and how do you find it?	
How are the rules different for each operation?	

Guiding Questions (See note at the end of the Unit of Instruction Organizer.)

Where are possible places that I may use fractions in my life?	DOK: Level One
Why do I need to know this?	

UOI Element 4 - Indicate how the instructional elements link directly to the unit objectives.

What will students be asked to do? (e.g., learner activities, assignments, and assessments)	**Which unit objective does this support?**
Students will be asked to change improper fractions to mixed fractions, and vice versa. Students will be asked to add, subtract, multiply and divide proper fractions, improper fractions and mixed fractions.	Add and Subtract Fractions, Multiplication

with
Fractions
and Division
with
Fractions

Note: Place documentation in Appendices A, B, and C.

UOI Element 5 - Describe the process of formative assessment to inform instruction and summative assessment to evaluate student learning.

What formative assessment(s) will you use?

I will use assessments from Study Island in both a Pre-Test and Post test format. I will assess learning with the use of dry erase boards and independent Study island sessions on the topics Add and Subtract Fractions, Multiplication with Fractions and Division with Fractions. I will also give worksheets to those who have not developed a mastery of the subject material in the areas mentioned above. I will also pull struggling students to my Smartboard for more personal instruction.

Describe how results of formative assessment(s) inform changes in instruction to meet student needs.

The results of formative assessments determine which course of action that I take with each student. Some will grasp the material in a timely fashion. Those students will be given the freedom to explore the topic in a shorter time-frame. Those who do not understand the material as well will have small group lessons, and if needed, individual attention. These lessons as mentioned above may include dry erase, Smartboard activities and independent Study Island sessions until a mutually developed goal is reached by the student.

What summative assessment(s) will you use?

The summative assessment used will be a Post Test format on Study Island on the topics Add and Subtract Fractions, Multiplication with Fractions and Division with Fractions.

Describe the summative assessment(s) to evaluate student learning. (How will you know the students met the learning objectives? Why are you giving that particular assessment? What will it tell you?)

I will know that students have met the learning objective when i see the results of the test. Study Island gives a detailed listing of any incorrect answers. Should there be an answer(s) that most of the students struggled with, I will address that particular problem(s) with all students on my Smartboard. The reason that I am giving this assessment is to evaluate each student's comprehension level over fractional operations.

Note: Place documentation in Appendix D.

UOI Element 5b - Student Growth Measure (SGM)

NOTE: If your district is opting to use the NEE UOI as the measure of student learning, you must complete this section. While this section is not scored with the NEE rubric, it is provided for your use in documenting the measurement of student learning. The measurement of SGM is a locally-defined procedure or administrative procedure.

What instructionally sensitive assessment(s) will you use to show student growth? This may include assessment(s) listed above and/or other assessments. (Ideally assessment(s) should be valid, reliable, well-constructed, and be accurately scored. Assessment(s) should be selected that target important learning objectives, measure some higher DOK levels, and emphasize processes and complex knowledge. They should be an adequate tool for making inferences about your ability to promote student learning.) *NOTE: The ESEA Waiver indicates that state assessment be used as part of the SGMs where available and appropriate.

Objective	Assessments
I can solve problems involving addition and subtraction of fractions and whole numbers with unlike denominators.	
I can calculate and interpret the product of a fraction by a whole	

number and a whole number by a fraction.

I can interpret and calculate a quotient of a unit by a non-zero whole number.

Assessments

Assessment(s)	*Assessment Type*	*Number of Students*	*Number Meeting Target*	*Percentage Meeting Target*
Add and Subtract Fractions, Multiplication with fractions and Division with Fractions	T	14	9	64.3%

Comments

The data above is the base for all of the Power Standards listed. Students were consistent on the understanding of the material for all.

Note: Place documentation in Appendix F.

UOI Element 6 - Identify effective research-based instructional strategies used in the unit.

Explain why you are using specific instructional strategies. Provide a description of key instructional strategies you will use and which lessons you will use them in. (You do not need to

discuss all the instructional strategies.) Provide evidence of their effectiveness. (Cited evidence should be from credible sources, such as publications or presentations that have been reviewed by peers. Other examples include credible textbooks, trade books, journals, the What Works Clearinghouse review, and publications and papers produced by nationally-recognized research or higher-education institutions. Include dates.)

I have used John Hattie's strategies of space versus mass and feedback. Feedback is required to allow students to know if they understand a concept. I also try to work prior lessons into current lessons.

UOI Element 7 - Describe the instructional strategies used to differentiate instruction for diverse learners present in the classroom. Mark diverse learner categories that do not apply as "N/A" (Not Applicable).

Enrichment for accelerated learners

Accelerated learners are "pushed" ahead to the next topic on Study Island. This allows for a more one-to-one approach based on each student's growth.

Remediation for struggling learners (Tier 2/Tier 3)

Struggling learners are given more time and instruction via the use of dry erase boards and lessons done together on Study Island. Using dry erase boards gives me immediate answers so that I may give the student immediate feedback. It also gives me an understanding on where a student may error. I also use my Smartboard for small group sessions. I find that many students like the attention of the big screen and perform well under pressure. I wil also review each student's Pre-test result question by question.

ELL

N/A

Other

N/A

UOI Element 8 - Describe how you lead students to self-reflect about their personal goals regarding the unit objectives.

Provide description with evidence.

Self-reflection is self reflection. Just as I self-reflect on my teaching strategies, I encourage students to self-reflect on their strengths and weaknesses in a lesson.

Note: Place documentation in Appendix C.

UOI Element 9 - Describe supporting resources used to facilitate the learning process.

Provide a description of supporting resources, including technology, used to facilitate the learning process. Include samples, such as comparative student work samples/anchor papers, schedules/pacing guides, task outlines, scoring guides/rubrics, assessments, or other appropriate resources for instruction and learning.

I use Chromebooks in my classroom for students to access Study Island. I also use the Computer Lab when necessary. I encourage students to improve their understanding by utilizing the Smartboard under my supervision and to use their own technology at home should they have access.

Note: Place documentation in Appendix E.

UOI Element 10 - Describe how the UOI will improve family and community involvement in the learning process.

Describe how this UOI will help you improve family and community involvement in the learning process.

Fractional operations can be a struggle for many math learners. I feel that this is a strength of mine, and having these students early allows me to lessen the universal fear of fractions. As students develop, they may be able to assist family or community in the production of constructed elements, such as buildings. The understanding of fractions is essential for those going into carpentry or construction.

NOTE: Family involvement can occur at school or at home, such as supervising homework, volunteering at school, or attending learning activities. Families should be invited to be collaborators in their child's learning, but not be forced to do so. Involvement should be structured for success regardless of family resources. Research suggests this may be especially important for low-SES and ethnic minority students, and caution is warranted regarding homework because some parents lack skills, or might "help" in ways that cause confusion and/or tension. **Community involvement** can take many forms, such as guest speakers with content expertise, field trips to community sites relevant to the content, etc.

UOI Element 11 - Self-reflection about the UOI

How would you teach this unit differently as a result of submitting this UOI?

At this point I would not teach it differently. I have a process that works for most students that gives them both independent practice and small group discussion with question and answer sessions.

NOTE: The purpose of this element is to help you improve the unit for your students. It is not scored. You may want to engage in dialogue with your principal, instructional coach, or team members as you reflect on the unit.

Appendix

NOTE: If your district uses other file storage systems (e.g., Google Drive), please ask your evaluator if you should use that system instead of uploading to the NEE Data Tool.

Appendix A: Lesson Sequence

This section should contain an overview or outline of unit lessons (scope and sequence).

Appendix B: Sample Lesson Plans

This section should contain samples of at least three class periods of lesson plans, including lesson objectives, student activities, and differentiated instructional strategies.

Appendix C: Sample Formative and Summative Assessments

Appendix D: Sample Student Work

This section should contain a range of student work, including samples from an accelerated student and a struggling student.

Appendix E: Resources and Materials

Appendix F: SGM Documentation and Individualized Student Data

There are various examples available on the web. For example, see Missouri's "Progress Tracker" at http://dese.mo.gov/sites/default/files/SLO-Handbook.pdfnone. **NOTE:** Make sure to remove any identifying student information (i.e., student names).

Richwoods R-VII Curriculum Form

Grade Level:6	Subject Area: Math	Unit Name:Unit 1 Ratios and Proportional Relationships
MLS: 6.RP.A.1 **Understand a ratio as a comparison of two quantities and represent these comparisons.** Covered by topic: • **Ratios and Ratio Language** 6.RP.A.2 **Understand the concept of a unit rate associated with a ratio, and describe the meaning of unit rate.** Covered by topic: • **Understand Unit Rates** •	**Priority Standards:** 6.RP.A.1 6.RP.A.2	**Supporting Standards:** 6.RP.A.3a 6.RP.A.3b 6.RP.A.3c 6.RP.A.3d
Prerequisite Skills: Students must be able to divide. Students must know what a fraction is and be able to identify the numerator and denominator.	**Duration:**Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a ratio? What is a unit rate? What is a percent? How do I change a percent to a decimal? What do the numbers in a ratio represent? When will I use the metric system?

Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet
Academic Vocabulary: Ratio Unit rate Unit price	**Enrichment Activities and Resources:** Small group on Study Island Tutoring Independent worksheets from Study Island and	**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Equivalent ratio Customary units Metric units Inch Feet Yard Mile Rate Meter Millimeter Centimeter Kilometer Ounce Pound Cup Pint Quart Gallon Liter Ton Gram Kilogram Milligram	Math-drills.com	
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:6	Subject Area: Math	Unit Name:Unit 2 Number Sense and Operations
MLS: 6.NS.C.5 **Use positive and negative numbers to represent quantities.** Covered by topic: • **Positive and Negative Numbers** 6.NS.C.6a **Locate rational numbers on a horizontal or vertical number line.** Covered by topic: • **Number Lines** 6.NS.C.6b **Write, interpret and explain problems of ordering of rational numbers.** Covered by topic: • **Ordering Rational Quantities** • 6.NS.C.7 **Understand that the absolute value of a rational number is its distance from 0 on the number line.**	**Priority Standards:** 6.NS.C.5 6.NS.C.6a 6.NS.C.6b 6.NS.C.7	**Supporting Standards:** 6.NS.A.1.a 6.NS.B.2 6.NS.B.3 6.NS.B.4.a 6.NS.B.4.b 6.NS.C.6.c 6.NS.C.8

Covered by topic: • **Absolute Value**		
Prerequisite Skills: Students must be able to identify values on a number line. Students must know how to add, subtract, multiply and divide. Students must be able to identify a fraction, a decimal and a percent.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is an opposite? What is an absolute value? How are items on a number line similar and different, based on their positive and negative values?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Fraction Decimal Percent Absolute Value Opposites Positive number Negative number Number line Rational quantity	**Enrichment Activities and Resources:** Small group on Study Island Tutoring Independent worksheets from Study Island and Math-drills.com	**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:6	Subject Area: Math	Unit Name:Expressions, Equations and Inequalities
MLS: 6.EEI.A.1 **Describe the difference between an expression and an equation.** Covered by topic: • **Expressions and Equations** 6.EEI.A.2a **Identify parts of an expression using mathematical terminology.** Covered by topic: • **Parts of an Expression** 6.EEI.A.3 **Identify and generate equivalent algebraic expressions using mathematical properties.** Covered by topic: • **Equivalent Expressions** 6.EEI.B.4 **Use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true.** Covered by topic: • **Solve Equations and Inequalities with**	**Priority Standards:** 6.EEI.A.1 6.EEI.A.2a 6.EEI.A.3 6.EEI.B.4 6.EEI.B.5 6.EEI.B.6 6.EEI.B.7	**Supporting Standards:** 6.EEI.A.2c 6.EEI.A.2b 6.EEI.A.2d 6.EEI.A.2c 6.EEI.B.8a 6.EEI.B.8b 6.EEI.C.9a 6.EEI.C.9b

Substitution 6.EEI.B.5 **Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.** Covered by topic: • **Solve Equations and Inequalities with Substitution** 6.EEI.B.6 **Write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation.** Covered by topic: • **Write and Solve Equations** 6.EEI.B.7 **Solve one-step linear equations in one variable involving non-negative rational numbers.** Covered by topic: • **Write and Solve Equations**		
Prerequisite Skills: Students need to recognize an equals sign. Students need to know that evaluate means to solve. Students should be familiar with the inequality signs of less than and greater than.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is an expression? What is an equation? What is the difference between numerical and algebraic What is a variable? What is an inequality?

Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

Academic Vocabulary: Expression Equation Algebraic Equivalent Inequality		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:6	Subject Area: Math	Unit Name:Geometry and Measurement
MLS: 6.GM.A.1 **Find the area of polygons by composing or decomposing the shapes into rectangles or triangles.** Covered by topic: • **Area**	**Priority Standards:** 6.GM.A.1	**Supporting Standards:** 6.GM.A.2a 6.GM.A.2b 6.GM.A.3a 6.GM.A.3b 6.GM.A.3c 6.GM.A.3d 6.GM.A.4a 6.GM.A.4d
Prerequisite Skills: Students must be able to multiply. Students must know the difference between horizontal and vertical.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** How do I find the area of a figure? What formula(s) will I use for each figure?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Area Composite Figures Volume Prism Pyramid Coordinate Plane X-axis Y-axis Origin		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Quadrant Reflection Net Surface area		
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:6	Subject Area: Math	Unit Name:Data Analysis, Statistics and Probability
MLS: 6.DSP.A.1 **Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.** Covered by topic: • **Statistical Questions** 6.DSP.A.2 **Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread and overall shape.** Covered by topic: • **Data Distribution** 6.DSP.A.3 **Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary from a single number.** Covered by topic: • **Measures of Center and Variability**	**Priority Standards:** 6.DSP.A.1 6.DSP.A.2 6.DSP.A.3	**Supporting Standards:** 6.DSP.B.4a 6.DSP.B.4b 6.DSP.B.5a 6.DSP.B.5b 6.DSP.B.5c 6.DSP.B.5d
Prerequisite Skills: Students must be familiar with reading a graph. Students must be able to read and pick out	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a statistic? What is data?

important information.		What is probability? How are data and statistics used?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Statistical Question Box Plot Minimum Maximum Mean Median Mode Range Histogram Dot plot Box and whisker plot Circle graph		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:7	Subject Area: Math	Unit Name:Ratios and Proportional Relationships
MLS: 7.RP.A.1 **Compute unit rates, including those that involve complex fractions, with like or different units.** Covered by topic: • **Compute Unit Rate** 7.RP.A.3 **Solve problems involving ratios, rates, percentages and proportional relationships.** Covered by topic: • **Ratios, Rates, and Percents**	**Priority Standards:** 7.RP.A.1 7.RP.A.3	**Supporting Standards:** 7.RP.A.2a 7.RP.A.2b 7.RP.A.2c 7.RP.A.2d
Prerequisite Skills: Students must be able to divide. Students must be able to identify a fraction and its parts (numerator and denominator).	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a unit rate? What is a proportion? What is a proportional relationship? How do I identify a proportional relationship?
Learning Activities:	**Assessments:**	**Resources/Materials:**

Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.	Study Island	Study Island Chromebook Internet
Academic Vocabulary: Unit Rate Ratio Proportional relationship Proportion		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Rate Percent		
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:7	Subject Area: Math	Unit Name:Number Sense and Operations
MLS: 7.NS.A.1a **Add and subtract rational numbers.** Covered by topic: • **Add and Subtract Rational Numbers** 7.NS.A.2a **Multiply and divide rational numbers.** Covered by topic: • **Multiply and Divide Rational Numbers** 7.NS.A.2f **Interpret products and quotients of rational numbers by describing real-world contexts.** Covered by topics: • **Compute with Rational Numbers** • **Multiply and Divide Rational Numbers** 7.NS.A.2d **Convert a rational number to a decimal.** Covered by topic: • **Convert Fractions to Decimals** 7.NS.A.1f	**Priority Standards:** 7.NS.A.1a 7.NS.A.2a 7.NS.A 2f 7.NS.A.2d 7.NS.A.1f 7.NS.A.3	**Supporting Standards:** 7.NS.A.1b 7.NS.A.1c 7.NS.A.1d 7.NS.A.1e 7.NS.A.2b 7.NS.A.2c 7.NS.A.2e

Interpret sums and differences of rational numbers. Covered by topic: • **Compute with Rational Numbers** 7.NS.A.3 **Solve problems involving the four arithmetic operations with rational numbers.** Covered by topic: • **Compute with Rational Numbers**		
Prerequisite Skills: Students must be able to add, subtract, multiply and divide. Students must be able to identify the symbols that coincide with each of the four mathematical operations.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a rational number? What is an irrational number?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Integer Additive Inverse Multiplicative Inverse Absolute Value Terminating Decimal Repeating Decimal		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:7	Subject Area: Math	Unit Name:Expressions, Equations and Inequalities
MLS: 7.EEI.A.1 **Apply properties of operations to simplify and to factor linear algebraic expressions with rational coefficients.** Covered by topic: • **Linear Expressions** 7.EEI.A.2 **Understand how to use equivalent expressions to clarify quantities in a problem.** Covered by topic: • **Linear Expressions** 7.EEI.B.4a **Write and/or solve equations of the form x+p = q and px = q in which p and q are rational numbers.** Covered by topic: • **Write and Solve Linear Equations** 7.EEI.B.4c **Write, solve and/or graph inequalities of the form px + q > r or px + q < r, where p, q and r are rational numbers.** Covered by topic: • **Write and Solve Linear Inequalities**	**Priority Standards:** 7.EEI.A.1 7.EEI.A.2 7.EEI.B.4a 7.EE!.B.3b	**Supporting Standards:** 7.EE1.B.3b 7.EEI.B.3a 7.EEI.B.4b

Prerequisite Skills: Students must be able to multiply. Students must be able to divide. Students must be able to read real-world problems.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What does it mean to be linear? What is an inequality? What is an equation?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Like terms Distributive property Factor Linear Equation Inequality		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:7	Subject Area: Math	Unit Name:Geometry and Measurement
MLS: 7.GM.A.1 **Solve problems involving scale drawings of real objects and geometric figures, including computing actual lengths and areas from a scale drawing and reproducing the drawing at a different scale.** Covered by topic: • **Scale Drawings** 7.GM.A.3 **Describe two-dimensional cross sections of pyramids, prisms, cones and cylinders.** Covered by topic: • **Cross Sections of Three-Dimensional Figures** • 7.GM.B.5 **Use angle properties to write and solve equations for an unknown angle.** Covered by topic: • **Angles**	**Priority Standards:** 7.GM.A.1 7.GM.A.3 7.GM.B.5	**Supporting Standards:** 7.GM.A.2a 7.GM.A.2b 7.GM.A.4a 7.GM.A.4b 7.GM.B.6a 7.GM.B.6b
Prerequisite Skills: Students must be able to add, subtract, multiply and divide. Students must be able to identify basic	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a scale factor? How do I read a blueprint? What formula(s) do I use to

geometrical shapes (circles and squares).		find the area of an object? What are the different types of angles?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebooks Internet

within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Scale Factor Proportion Scale drawing Triangle Quadrilateral Trapezoid Isosceles trapezoid Parallelogram Rhombus Rectangle Square Kite Plane Cross-section Prism Pyramid Diameter Radius Circumference Complementary angle Supplementary angle Adjacent angle Vertical angle Area Surface area Volume Cylinder		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Rectangular prism Triangular prism		
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:7	Subject Area: Math	Unit Name:Data Analysis, Statistics and Probability
MLS: 7.DSP.C.6a **Predict outcomes using theoretical probability.** Covered by topic: • **Theoretical and Experimental Probability** 7.DSP.C.8a **Represent the sample space of a compound event.** Covered by topic: • **Compound Events** 7.DSP.B.3 **Analyze different data distributions using statistical measures.** Covered by topic: • **Comparing Statistics** 7.DSP.B.4 **Compare the numerical measures of center, measures of frequency and measures of variability from two random samples to draw inferences about the population.** Covered by topic: • **Comparing Statistics**	**Priority Standards:** 7.DSP.C.6a 7.DSP.C.8a 7.DSP.B.3 7.DSP.B.4	**Supporting Standards:** 7.DSP.A.1a 7.DSP.A.1b 7.DSP.A.1c 7.DSP.A.2 7.DSP.C.5a 7.DSP.C.5b 7.DSP.C.7a 7.DSP.C.6a 7.DSP.C.6b 7.DSP.C.6c 7.DSP.C.7a 7.DSP.C.7b 7.DSP.C.8b

Prerequisite Skills: Students must be able to retrieve important information from tables and graphs. Students must be able to use and understand the four mathematical operations.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is probability? What is sampling? What types of probability and sampling exist?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebooks Internet

test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Sampling Population Random sampling Convenience sampling Sampling bias Sample size Representative sample Box and whisker plot Median Lower quartile Upper quartile Interquartile range Mean absolute deviation Mean Mode Generalization Probability Proportion Prediction Theoretical probability Experimental probability Tree diagram Outcome		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:8	Subject Area: Math	Unit Name:Number Sense and Operations
MLS: 8.NS.A.1a **Know the differences between rational and irrational numbers.** Covered by topic: • **Real Numbers** 8.NS.A.2 **Estimate the value and compare the size of irrational numbers and approximate their locations on a number line.** Covered by topic: • **Rational Approximations**	**Priority Standards:** 8.NS.A.1a 8.NS.A.2	**Supporting Standards:** 8.NS.A.1b 8.NS.A.1c 8.NS.A.1d
Prerequisite Skills: Students must know how to add, subtract, multiply and divide.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a rational number? What is an irrational number? What is the difference between a terminating decimal and a repeating decimal?
Learning Activities: Students will review past definitions and will be	**Assessments:** Study Island	**Resources/Materials:** Study Island

introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		Chromebook Internet
Academic Vocabulary: Rational Numbers Irrational numbers Decimal expansion Terminating decimal		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.

Repeating decimal Square root Radical sign		
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:8	Subject Area: Math	Unit Name:Expressions, Equations and Inequalities
MLS: 8.EEI.A.1 **Know and apply the properties of integer exponents to generate equivalent expressions.** Covered by topic: • **Exponents** 8.EEI.A.3 **Express very large and very small quantities in scientific notation and approximate how many times larger one is than the other.** Covered by topic: • **Scientific Notation**	**Priority Standards:** 8.EEI.A.1 8.EEI.A.3	**Supporting Standards:** 8.EEI.A.2a 8.EEI.A.2b 8.EEI.A.2c 8.EEI.A.4a 8.EEI.A.4b 8.EEI.B.5a 8.EEI.B.5b 8.EEI.B.6a 8.EEI.B.6b 8.EEI.C.7a 8.EEI.C.7b 8.EEI.C.8a 8.EEI.C.8b 8.EEI.C.8c 8.EEI.C.8d
Prerequisite Skills: Students must be able to apply all four mathematical operations. Students need to recognize what an exponent is from previous lessons involving Order of Operations. Students need to recognize numbers greater than one and numbers less than one.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is an exponent? How do I apply an exponent to any integer? What is a square root? What is a cube root? What do numbers look like in Scientific Notation? What do numbers look like in Standard Form?

Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

Academic Vocabulary: Exponent Square root Cube root Square Cube Scientific Notation Standard Form Power of Ten Proportional; relationship Slope Solution Variable Linear equation Non-linear equation Y-intercept Unit rate Slope-intercept form (y=mx+b) Rate of change Inequality Coordinate plane Slope formula (y2-y1/x2-x1)		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:8	Subject Area: Math	Unit Name:Geometry and Measurement
MLS: 8.GM.A.1a **Verify that angle measure, betweeness, collinearity and distance are preserved under rigid transformations.** Covered by topic: • **Rigid Transformations** 8.GM.A.3 **Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates.** Covered by topic: • **Effect of Transformations** 8.GM.A.5a **Derive the sum of the interior angles of a triangle.** Covered by topic: • **Angles and Lines** 8.GM.B.6 **Use models to demonstrate a proof of the Pythagorean Theorem and its converse.** Covered by topic: • **Pythagorean Theorem** 8.GM.B.7	**Priority Standards:** 8.GM.A.1a 8.GM.A.3 8.GM.A.5 8.GM.B.6 8.GM.B.7	**Supporting Standards:** 8.GM.A.1b 8.GM.A.2a 8.GM.A.4a 8.GM.A.5b 8.GM.A.5c 8.GM.A.5d 8.GM.B.8 8.GM.C.9a 8.GM.C.9b

Use the Pythagorean Theorem to determine unknown side lengths in right triangles in problems in two- and three-dimensional contexts. Covered by topic: • **Pythagorean Theorem**		
Prerequisite Skills: Students need to identify a graph. Students need to know what a triangle looks like. Students must know what a formula is.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a triangle? What is the Pythagorean Theorem? How can I tell if an object is congruent?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.		
Academic Vocabulary: Rotation Congruent Reflection Transformation Parallel Collinearity of points Betweeness of points Dilation Supplementary Pythagorean theorem Surface area Volume		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:8	Subject Area: Math	Unit Name:Data Analysis, Statistics and Probability
MLS: 8.DSP.A.1 **Construct and interpret scatter plots of bivariate measurement data to investigate patterns of association between two quantities.** Covered by topic: • **Scatter Plots** 8.DSP.A.2 **Generate and use a trend line for bivariate data, and informally assess the fit of the line.** Covered by topic: • **Best-Fit Linear Models** 8.DSP.A.3 **Interpret the parameters of a linear model of bivariate measurement data to solve problems.** Covered by topic: • **Best-Fit Linear Models**	**Priority Standards:** 8.DSP.A.1 8.DSP.A.2 8.DSP.A.3	**Supporting Standards:** 8.DSP.A.4a 8.DSP.A.4b
Prerequisite Skills: Students must know how to represent numbers from least to greatest.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is data? How will I use data? What is a statistic? What is probability?

		What is a scatter plot?
Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%, tutoring will be recommended.	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

Academic Vocabulary: Scatter plot Line of best fit Trend line Two-way table		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	

Richwoods R-VII Curriculum Form

Grade Level:8	Subject Area: Math	Unit Name:Functions
MLS: 8.F.A.1a **Understand that a function assigns to each input exactly one output.** Covered by topic: • **Understanding Functions** 8.F.A.2 **Compare characteristics of two functions each represented in a different way.** Covered by topic: • **Compare Functions** 8.F.A.3a **Interpret the equation y = mx + b as defining a linear function, whose parameters are the slope (m) and the y-intercept (b).** Covered by topic: • **Linear vs. Nonlinear Functions** •	**Priority Standards:** 8.F.A.1a 8.F.A.2 8.F.A.3a	**Supporting Standards:** 8.F.A.1b 8.F.A.1c 8.F.A.3b 8.F.A.3c 8.F.B.4a 8.F.B.4b 8.F.B.4c 8.F.B.5
Prerequisite Skills: Students must recognize a graph. Students must be able to place and identify ordered pairs on a graph.	**Duration:** Each lesson will vary, and the maximum time frame will be twelve (12) days per lesson.	**Essential Questions:** What is a function? What is the difference between linear and non-linear functions?

Learning Activities: Students will review past definitions and will be introduced to new terminology. For each lesson, students will begin with a pre-test to assess prior knowledge, and to give students an idea of what will be discussed throughout the lesson. After the students take the pre-test, I will explain each question and ask that students take notes on the material. This review is usually a two day process. Once we have discussed all pre-test problems, the class will work on a group session with me on Study Island, with a minimum of twenty (20) questions per session. This is a two to three day process. Upon completion of the group assignment, students will be encouraged to use their notes while working independently on Study Island. A minimum of fifty questions will be completed by all students. Should a student be above the mastery level of 70% after independent work, he/she may take the post test. If a student fails to make a 70% on the post test, he/she will be part of a small group remediation, with more focus on group work, while I explain each question to all students within this group. After remediation, students will be given a chance to revise their test. If the student is still not at mastery level of 70%,	**Assessments:** Study Island	**Resources/Materials:** Study Island Chromebook Internet

tutoring will be recommended.		
Academic Vocabulary: Relation Ordered pair Function Linear function Rate of change Slope Rise over run Increase Decrease		**Reteach Activities and Resources:** Study Island skill levels may be adjusted as needed.
Reflection:	**Notes:**	