Curriculum Sample Template
Max. 8 Pages

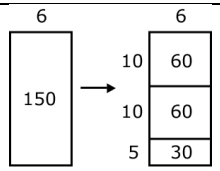
Grade Level	Grade 4	**Content Area**	Math
Course Title (grades 9-12 Only)			
Length of Unit	One week (4 days)	**Time of Year**	3rd quarter
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	Students will be able to demonstrate their knowledge of addition, subtraction, division, and multiplication. Students will have the ability to communicate and discuss results in groups. Students will be able to transfer results onto a scan card or a handout.		
Alignment to Program of Instruction *Briefly outline methods of instruction found in this sequence of lessons that align to the Program of Instruction described in A.3.*	Students will explore the meaning of division. This lesson plan also included writing quotients for one-digit divisors in division. The student will gain an understanding of the relationship between multiplication and division.		
Standard Number and Description *List the Number* and full description for the required Standard.*	4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.		
Summative Assessment *Describe a cumulative and comprehensive activity, clearly separate from instruction and guided or independent practice, which allows each student to individually demonstrate mastery of the required Standard. A copy of the summative assessment must be attached to the curriculum sample.*	The assessment is a five question multiple choice, short answer assessment designed assess the scholar's ability to master the depth of the above standard. The scholar will demonstrate finding quotients with remainders and up to four-digit dividends and one-digit divisor using place value, properties of operations and the relationship between multiplication and division. The scholar will demonstrate mastery is solving problems and writing a reason how the problem was solved.		
Scoring Scale and Mastery Level *Explain how the assessment is scored, to include points per question, how points are awarded, total points possible, criteria necessary to demonstrate mastery, and grading scale. A copy of the answer key and scoring rubric (whichever applicable) must be attached to the curriculum sample.*	The assessment is worth a total of 100 points. Each of the five questions will be worth 20 points each. The scholars must answer each question accurately and completely to earn the five points. The assessment is worth 100 points. 80 points will indicate mastery.		
Materials/Resources Needed	Teacher: White board and dry erase markers, number line, mimio and projector, base ten blocks.		

	Students: math journal, personal whiteboard and dry erase marker, pencil, dice, counter chips

* ***Standard Number****: For English Language Arts (Reading and Writing), use Grade, Strand, Standard (e.g., 3.RI.2). For K-8 Math, use Grade, Domain, Standard (e.g., 6.EE.7). For HS Math, use Conceptual Category-Domain, Standard (e.g., A-REI.6). For Science, use Grade, Strand, Concept, PO (e.g., 4.1.3.1).*

Lesson (add as needed)	**Instruction**	**Student Activities**
Day 1	**Anticipatory set:** Write the following words on the whiteboard. Quotient, divisor and dividend. Scholars will write and definition of each and label a division problem in their math journal. **Lesson:** Teach the scholars the process of division with a single-digit divisor and up to four digit dividend. As a whole group, review with scholars that division is the process of dividing numbers and objects into smaller groups. Ask students to get into their leaning groups for instruction. All groups will begin working with the base ten blocks to divide them into smaller groups. **Using Base 10 Blocks**: Students build 260 with base 10 blocks and distribute them into 4 equal groups. Some students may need to trade the 2 hundreds for tens but others may easily recognize that 200 divided by 4 is 50. Teacher will circulate to all learning groups for small group instruction. Differentiation and allowing the excelling students to move ahead to reasoning. **Closure:** Put a division problem on the whiteboard for each scholar to solve and turn in. Teacher will review steps using the base ten blocks to solve.	• Scholars will make a journal entry by labeling and defining math vocabulary • Listen and participate to the teacher introducing the lesson and activities for the day. • Get into the learning groups. Learning groups: Tier 3: work with base ten blocks, grouping them and using them to represent numbers until the teacher move to their group. Tier 2: Begin exploring division problems using the base ten blocks. Teacher will begin with this group. Tier 1: Teacher will provide instruction last as they have the ability to work in a group and try to solve the problems with little instruction from teacher. When teacher teaches this group higher order of thinking skills will be used and scholars will begin using reasoning to justify their answers. • Scholars will solve a problem on the board and turn it into the teacher on the way out the door.

Day 2	**Anticipatory Set:** Journal activity: Students will explain place value and apply it to a division problem. **Lesson:** Review place value. Instruct scholars when they divide they are not diving by single numbers the single number represent groups of tens, hundreds and thousands. Display the following question on the white board: 260 / 4. Model the steps using place value **Using Place Value:** 260 ÷ 4 = (200 ÷ 4) + (60 ÷ 4) Leave the problem on the board as a model for scholars to follow. The teacher will also model the explanation in solving the problem. In the small groups the teacher will instruct each group in using place value to solve division problems and write explanations and reasoning. **Closure:** Have scholars to back to their math journals and check their answer. Make corrections if needed after the lesson.	• Scholars will complete the journal entry as instructed by the teacher. • Participate in class lesson • Work in learning groups for lesson instruction and practice. • Check math journals and correct last journal entry
Day 3	**Anticipatory Set:** Journal entry: Solve the following problem and write and explanation in your journal about how you solved the problem. 350 / 5. **Lesson:** Ask students to get into learning groups. Teach each tier division by modeling an array and area model. The array model may be difficult for the tier 3 scholars'; they may work on area model for mastery. Teacher will model and use the follow instructions during each lesson. • **Using an Open Array or Area Model** After developing an understanding of using arrays to divide, students begin to use a more abstract model for division. This model connects to a recording process that will be formalized in the 5th grade. ○ Example 1: 150 ÷ 6	• Scholars will solve the problem of day and record explanation in journal • Scholars will get into their leaning groups. Teacher will present division lesson using arrays and area model. Tier 1 and 2 scholars will practice both models and write out reasoning for each Tier 3 scholars will master the area model and advance to the array and writing reasons.



Students make a rectangle and write 6 on one of its sides. They express their understanding that they need to think of the rectangle as representing a total of 150.

Students think, 6 times what number is a number close to 150? They recognize that 6 x 10 is 60 so they record 10 as a factor and partition the rectangle into 2 rectangles and label the area aligned to the factor of 10 with 60. They express that they have only used 60 of the 150 so they have 90 left

1. Recognizing that there is another 60 in what is left they repeat the process above. They express that they have used 120 of the 150 so they have 30 left.
2. Knowing that 6 x 5 is 30. They write 30 in the bottom area of the rectangle and record 5 as a factor.
3. Students express their calculations in various ways:

   a. 150 150 ÷ 6 = 10 + 10 + 5 = 25
   - 60 (6 x 10)
   90
   - 60 (6 x 10)
   30
   - 30 (6 x 5)
   0

   b. 150 ÷ 6 = (60 ÷ 6) + (60 ÷ 6) + (30 ÷ 6) = 10 + 10 + 5 = 25

	• Example 2: 1917 ÷ 9 A student's description of his or her thinking may be: I need to find out how many 9s are in 1917. I know that 200 x 9 is 1800. So if I use 1800 of the 1917, I have 117 left. I know that 9 x 10 is 90. So if I have 10 more 9s, I will have 27 left. I can make 3 more 9s. I have 200 nines, 10 nines and 3 nines. So I made 213 nines. 1917 ÷ 9 = 213 Students may use the base ten blocks or other manipulatives to see how grouping is used and to make the connection of using multiplication is solving division problem. **Closure:** Pass out a division sheet with two problems on it. The scholars will solve one using the array method from the day's lesson and the second one of their choice. The teacher will use this mini-assessment to determine if one more day of teaching will be necessary.	• All scholars will complete two division problems and turn into the teacher. Tier 3 scholars may need additional support to complete problems.
Day 4	Students will divide four-digit numbers by a one-digit divisor. Students will transfer concrete representation to algorithmic solving. • Tell students that today they will apply their knowledge of dividing two and three-digit dividends to dividing with four-digit dividends. Invite students to use their number disks to represent the dividend 7122. Write (7122 ÷ 3) on the white board using the division bar. • Model the division of this whole into 3 equal groups. First divide the (1000s)s by placing 2 in each cup. Write 2 above the hundreds. Continue the long division procedure. After each step (dividing 1000s, 100s, 10s, and 1s), give students an opportunity to replicate what you've modeled using their own number disks and student white boards. When the whole number quotient and	• Scholars will work in learning groups and practice three and four digit division problems. • Teacher will work individually with scholars needing more support • Excelling students will peer tutor the process of long division with peers. • Scholars may use any manipulative to assist in solving problems using the place value strategy.

	remainder has been found, check for accuracy using multiplication and addition. **Guided Practice**: Work through several other examples of four-digit long division using number disks and the algorithm. Encourage students to share strategies with their base group members while working. If students get "stuck" they must ask assistance from their team members before requesting assistance from the teacher. • Model for students the use of area models to represent and solve division problems. (e.g., A builder has purchased 34 square acres to build a housing community. He would like the land equally spaced for each property. He hopes to build 9 houses on this land. How much property will each home get? How much space will be left over to build a business center?) • Circulate the class to monitor student progress. Provide additional scaffolding where needed. Assemble a small group of students who might benefit from more explicit instruction. **Independent Practice**: Tell students they will now practice their long division skills for 2 to 4-digit dividends. The teacher will write a dividend on the board. Student will copy this whole number onto their student white boards. Each student will roll their 9-sided die to determine the divisor. Students will use the algorithm for long division to solve the practice problems. If a student should finish their problem quickly, they may roll their die again and divide using a different divisor. • Monitor student progress to check for accuracy and understanding	• Participate in guided practice exercise and ask questions when needed. • Copy problems from the whiteboard and solve as instructed by the teacher. • Scholars will work in learning groups and use the dice to practice the division problem. When they finish a problem they will roll the dice and use the number showing as the divisor.
5	Teacher will answer any questions from the scholars and review the strategies learned. Hand each scholar the assessment to complete	Scholars will listen to the review, ask any questions Take the assessment

Paste Summative Assessment Here: **4th Grade Assessment**

Name_____

Solve the following. Show your work in the space provided

1. **457 / 7 = _____**
   a. **65**
   b. **65 r. 2**
   c. **76 r.1**
   d. **66.4**

2. **Solve using place value strategy. Show all work**
   693 / 5 = _____

3. **Solve and draw an area representation.**
   1080 / 9 = _____

4. **Susan had 2,256 beads that she had collected. She wants to make 8 bracelets. How many beads will she need to make each bracelet? How many will she have left over? Write the equation, solve it and answer the question.**

5. **Write a story problem to fit the equation. 5689 / 9 = _____**

Paste Answer Key/Scoring Rubric Here: ***4th Grade Assessment***

Name_____

Solve the following. Show your work in the space provided

1. ***457 / 7 = _____***
   - ***a. 65***
   - ***b. 65 r. 2***
   - ***c. 76 r.1***
   - ***d. 66.4***

2. ***Solve using place value strategy. Show all work***
   693 / 5 = _____
   (600 / 5) + (90 / 5) + (3/5) = ___
   120 + 18 = 138 r.3

3. ***Solve and draw an area or an array representation.***
   1080 / 9 = _____

   1080 / 9 = 120 The array model must match the examples from lesson, the area should show a length of 9 and width of 120 or vice versa.

4. ***Susan had 2,256 beads that she had collected. She wants to make 8 bracelets. How many beads will she need to make each bracelet? How many will she have left over? Solve using a strategy of your choice. Write the equation, solve it and answer the question. Scholar must use a strategy from the week's lesson and show work. 2256 / 8 = 282. Susan will make 8 bracelets and use 282 beads for each. She will not have beads left over.***

5. ***Write a story problem to fit the equation. 5689 / 9 = _____***
   Scholar must write a logical question to represent the equation. Solve the equation: 5689 / 9 = 632 r.1
   The answer must match the question of the problem

Total assessment 100 points. 80 points indicates mastery