Curriculum Sample Template
Max. 8 Pages

Grade Level	Grade Three	**Content Area**	Math
Course Title (grades 9-12 Only)	n/a		
Length of Unit	4 days (Assessment on day 5)	**Time of Year**	January
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	At this point in the year, third grade students will already have developed a conceptual understanding of both multiplication and division. Students will have spent much time developing their knowledge of multiplication and division concepts using various models (such as arrays and pictures) in addition to spending time practicing multiplication fluency. Students will also be familiar with skip-counting and know that multiplication is the same thing as repeated addition. Although students will still be developing their multiplication and division fluency and may not yet know their facts instantaneously, they will have a strong foundation in multiplication principles which will contribute to furthering their development of multiplication strategies at a more complex level. Students will also have an understanding of place value.		
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.*	This lesson follows the I Do/We Do/You Do gradual release model that Vista College Prep teachers will be expected to uphold in lesson planning and delivery. This unit takes advantage of the "think-pair-share" a strategy used by teachers to check for understanding. Throughout the lesson, as discussed in Vista College Prep's Program of Instruction, teachers are taking advantage of the smaller class sizes and targeting their instruction through individualization and working with smaller groups during the "you do" portion of the lesson.		
Standard Number and Description *List the Number* and full description for the required Standard.*	**3.NBT.3:** Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.		
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.*	To demonstrate mastery of this standard, students will complete a ten-question test that requires them to solve multiplication problems (where they multiply one-digit whole numbers by multiples of 10 in the range 10-90) and explain their thought process. The assessment is scaffolded because it first assesses students' conceptual understanding using picture models of place value blocks. Then it requires students to solve problems independently without the support of the picture models. Finally, students must explain how to solve multiplication problems and justify their reasoning.		
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*	The assessment is a 10-question test with each question being worth 1 point. To demonstrate mastery of the objective, students must earn at least 8 out of 10 points. Please see assessment scoring guide.		

sample.	
Materials/Resources Needed	base ten blocks (ones cubes and tens sticks), multiplication mats, worksheets with multiplication problems, pencils

* ***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**
1	**Objective: Students will be able to represent multiplication problems using base ten blocks.**	
	Intro to New Material: Teacher explains to students that they have done such a great job with multiplication and division this year, that now they are ready to move on to something even harder. The unit we are starting today will teach us how to multiply a one-digit number by a two-digit number. This is going to make it so that we will be able to multiply two-, three- and four- digit numbers easily, just like fourth graders!	Students listen actively.
	I do/We Do: Teacher reviews the definition of multiplication using TPR (multiplication is repeated addition). Teacher explains that just like when we multiply a one-digit number by another one-digit number (a number that only has a digit in the ones place), we are going to be adding up groups of the same number (equal groups). Teacher explains that today we are going to see how this looks so that we have a strong understanding of what it means to multiply a one-digit number by a two-digit number.	Students complete TPR with teacher and say definition of multiplication. Students listen actively.
	Teacher shows the problem 2 x 2 using ones cubes (two groups of two ones cubes). Teacher then shows the problem 2 x 20 using tens sticks (two groups of two tens sticks). Teacher asks students what they noticed about what she just did. Students think-pair-share. Teacher explains that she is doing the same thing she did with the tens sticks as she did with the ones cubes, forming two groups, only now we are adding up tens instead of ones. Teacher models another example as students follow along.	Students observe teacher model the first problem. Students turn to a partner and share what they noticed the teacher doing, first multiplying 2 x 2 with ones cubes, then multiplying 2 x 20 with tens sticks. Students share responses whole group by raising their hands.
	We do: Teacher gives a problem and teacher and students complete the problem, using tens sticks on a multiplication place value mat. Teacher	Students get out multiplication mats and tens sticks. Students create the problems the teacher creates and make adjustments as given by teacher.

	and students continue to practice problems together and over time, teacher gradually releases more and more responsibility to the students. Teacher puts a final problem on the board and asks students to create the problem on their mats. Teacher circulates to check for understanding. Students who master the check for understanding go on to independent practice and teacher works with a small group of students who require more assistance. **You Do:** Teacher gives students a worksheet with problems and instructs students to create each of the problems with base ten blocks before recording their answers on the paper. Teacher assists students who did not master the check for understanding. Teacher circulates to confer with students about their progress and checks to ensure all students are meeting the objective. Teacher intervenes where necessary to push students understanding. At the end of the independent practice, teacher brings all students back together as a class. Teacher asks students to explain to a partner "How do I solve the problem 4 x 40?" Teacher brings the class back together and asks students to share their responses.	Students create final problem on their own. Students complete worksheet by building and counting groups of tens sticks on their mats and writing the answers on their papers. Students think-pair-share with a partner. Each student explains the process for multiplying 4 x 40. Then students share with the whole class as directed by the teacher.
2	**Objective: Students will be able to draw pictures of base ten blocks to represent multiplication problems.** **Intro to New Material:** Teacher reminds students that this week we are learning how to multiply one-digit by two-digit numbers. This is the next step towards being able to multiply much bigger numbers like we will do in fourth grade next year. **I do/We Do:** Teacher tells students that eventually we want to be able to solve problems without using our base ten blocks. Today, we are going to practice again solving multiplication problems but this time we are going to draw pictures of base ten blocks instead of actually using them like we did yesterday. Teacher models how to solve the problem 9 x 50 by drawing groups of base ten blocks. Teacher explains thinking aloud as she models. Teacher models two more problems as students follow along. **We do:** Teacher explains that now we are going to try to solve some of these problems together. Teacher and students solve several	Students listen actively. Students follow along as teacher models by drawing the problems on their papers. Students solve problems with teacher by drawing the problems on their papers. Students turn to discuss the problem solving with their partners

	multiplication problems together. Teacher directs students to explain their thinking to their partners at key places in the problem solving. As the guided practice continues, teacher releases more and more responsibility to students until students are doing most of the work with limited teacher support. Teacher walks around to monitor students' understanding throughout the "We Do" and corrects any misconceptions as necessary. Teacher executes checks for understanding throughout the guided practice to ensure students are mastering the concept. Teacher executes one final check for understanding before releasing students to complete the "You Do." **You Do:** Teacher directs students to work independently on the independent practice portion of their worksheets. As students are working, teacher circulates to monitor student understanding and to work further with any students who require additional support. Teacher brings students back together at the end of the "You Do." Teacher asks students to explain one of their problems to their partner.	as directed by the teacher. Students also complete checks for understanding as directed by the teacher. Students work independently to solve the problems on their worksheets. Students draw the groups of tens sticks, then count them and record their responses on their papers. Students think-pair-share with their partners, explaining how they solved one of their multiplication problems. Students share out with the whole class as directed by the teacher.
3	**Objective: Students will be able to draw pictures to represent multiplication problems and explain their thinking.** **Intro to New Material:** Teacher tells students they have done a great job so far this week showing how to solve really complex multiplication problems using base ten blocks. Teacher explains that today we will practice explaining our answers in writing. This is going to help us to really think through and understand our multiplication problems so that we could teach it to someone else. **I do/We Do:** Teacher asks students to draw a picture to solve the problem 3 x 80 (review from yesterday). Teacher gives students time to complete the problem and directs students to really think through what they're doing as they solve the problem. After students have drawn the problem, teacher asks students to share their thinking with a partner. Using student responses and adding additional information as necessary, teacher models how to explain her thinking in solving the problem. Teacher records thoughts in writing. **We do:** Teacher and students solve multiplication problems by drawing base ten blocks and explain their thinking in writing. Teacher directs	Students listen actively. Students draw a picture of base ten blocks to solve the problem 3 x 80. Students explain their thinking to a partner and share responses with the whole class as directed by the teacher. As teacher writes explanation, students copy explanation on their papers. Students solve problems with the teacher, share their thinking with

	students to share their thinking with partners before writing the explanations down together as a class. Throughout the guided practice, teacher gradually releases more and more responsibility to the students. Teacher circulates throughout guided practice to address misconceptions and executes checks for understanding where appropriate. Teacher assigns one final problem as a check for understanding before students move on to the independent practice. **You Do:** Teacher directs students to complete the independent practice portion of their worksheets, solving problems and explaining their thinking. As students work, teacher circulates and assists students who require more support. Teacher brings students back together and directs students to read the explanation from their final problem to their partner. Teacher tells students they did a great job explaining their thinking today and that is going to help them to do all kinds of math even better, not just multiplication.	partners as directed by teacher, and write their explanations on their papers. Students complete checks for understanding as directed by the teacher. Students complete worksheets, solving multiplication problems and explaining their thinking in writing. Students read an explanation of one of their problems to their partner.
4	**Objective: Students will be able to multiply one-digit whole numbers by multiples of 10 in the range 10–90 and explain their reasoning.** **Intro to New Material:** Teacher tells students that today is the final day to practice multiplying one-digit and two-digit numbers before our test. Teacher tells students they have been doing a great job of solving problems and explaining their thinking. Teacher says that our focus today will be to make sure that we are all ready to do a great job on our assessment tomorrow. **I do/We Do:** Teacher will model solving the problem 3 x 30 and writing an explanation with student input. Teacher will model more problems as necessary. **We do:** Teacher and students will solve problems. Teacher will direct students to work with partners to practice solving problems and write explanations. Teacher will circulate during student partner work to address any misconceptions or to assist students who require additional support. Teacher will check student understanding by asking individuals probing questions. Teacher will also assign a problem at the end of the	Students listen actively. Students will contribute ideas/steps for how to solve problem as directed by teacher. Students will copy the teacher's writing. Students will work with teacher and partners to solve problems and explain their thinking in writing. Students will complete checks for understanding as directed by the teacher.

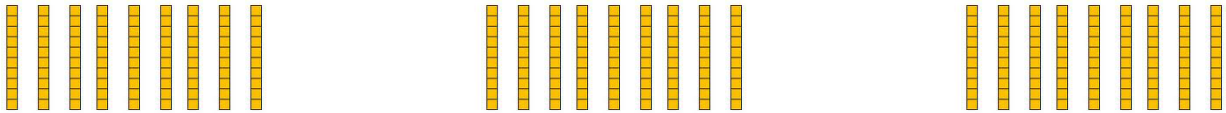
	guided practice to serve as a check for understanding. Students will solve this problem independently. **You Do:** Teacher will direct students to continue on to the independent practice portion of their worksheets. Independent practice will be in a format similar to both today's lesson and the unit assessment. Teacher will circulate to assist students who require additional support. Teacher will bring students back together. Teacher will tell students to pick one problem they solved today and explain the problem to a partner. Teacher will ask one or two students (who have exemplar responses) to share with the whole class.	Students will complete their independent practice. Students will discuss their problems with a partner. Students will share out whole group as directed by the teacher.
5	**Assessment: Students will be able to multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.** **2 min:** Teacher reminds students that today is the day they'll get to show everything they have learned about solving really hard multiplication problems! **8 min:** Teacher tells students that before we get started on our assessment, we are going to practice solving one more multiplication problem. Teacher gives problem and students work to solve the problem. Teacher walks around to monitor student progress and provide assistance. Teacher brings the class back together and goes over how to solve the problems as a final review. **40 min:** Teacher administers assessment. Teacher walks around to monitor student progress although teacher will not assist students with any content-related questions.	Students listen actively. Students complete practice problem given by the teacher. Students contribute answers as directed by the teacher. Students complete assessment.

Paste Summative Assessment Here:

1. What equation does the following picture represent?

2. What equation does the following picture represent?

3. What equation does the following picture represent?



Multiply the following numbers.

4. 9 x 90 =

5. 4 x 70 =

6. 9 x 40 =

7. 6 x 90 =

8. 3 x 40 =

9. Adriana did the following multiplication problem. 7 x 70 = 490
   Explain how you can tell if her answer is correct.

10. Multiply the following numbers. 6 x 40 =
    Explain how you solved the problem.

Paste Answer Key/Scoring Rubric Here:

1. 4 x 60 = 240
2. 6 x 30 = 180
3. 3 x 90 = 270
4. 810
5. 280
6. 360
7. 540

8. 120
9. Response will include at least one of following pieces of information:
    -7 x 70 means making 7 groups of 70
    -70 + 70 + 70 + 70 + 70 + 70 + 70
    -Add 70 seven times.
    -7 x 70 means taking 7 groups of 7 tens in each groups and adding them up.

Response will also state that when you complete the given solving process, the answer will be 490.

10. Response will include clear explanation of thought process behind solving the problem. Must include at least 1 of the following pieces of information:
    -6 x 40 means making 6 groups of 40
    -40 + 40 + 40 + 40 + 40 + 40
    -I added 40 six times.
    -6 x 40 means taking 6 groups of 4 tens in each group and adding them up.

Response will also state that when you complete the given solving process, the answer will be 240.