Curriculum Sample Template

Max. 8 Pages

Grade Level	Kindergarten	**Content Area**	Math
Course Title (grades 9-12 Only)	n/a		
Length of Unit	4 days (assessment on day 5)	**Time of Year**	December
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	By December, Vista College Prep kindergarteners will have had exposure to place value chart, will be able to write all numbers referenced in this unit (11-19), are able to count all numbers in this unit, recognize that numbers from 11-19 have two-digits, understand rules and expectations when using manipulatives, and have basic exposure to addition and subtraction.		
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.*	Vista College Prep teachers will engage in choral responses (asking students to engage in chant counting) and frequent and systematic checks for understanding (in the lesson plan template teachers will use there will be a designated spot asking teachers how they will check for understanding). Vista College Prep teachers will also engage in a high amount of differentiation targeting the lowest learner for more individualization but also providing "challenge" problems for Vista College Prep's highest learners.		
Standard Number and Description *List the Number* and full description for the required Standard.*	**K.NBT.1** - Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.		
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.*	Students will solve seven problems. Each problem will have a number 11-19 and ask students to compose or decompose the number. The assessment will follow a parallel format to the worksheets being used in class. A copy of the summative assessment is attached.		
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 first four questions are worth two points each (one point for pictorial representation and one point for numeric) and the last three are worth three points each (one point for pictorial representation and one point for fill-in-the-blank). 80% is mastery of a standard; therefore, students need to score a 14/17 to achieve mastery of this standard.		
Materials/Resources Needed	Bags of 11-19 objects: one for each student (students can rotate bags throughout the lesson), Scratch paper to write down numbers, Worksheet: Composing/Decomposing Pictures, ones and tens poster, rubber bands, straws		

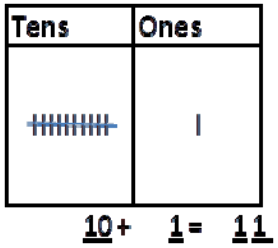
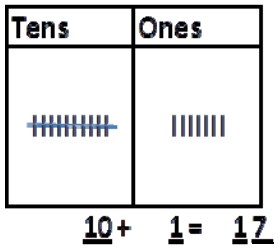
* ***Standard Number**: For English Language Arts (Reading and Writing), use Grade, Strand, Standard (e.g., 3.RI.2). For K-8 Math, use Grade, Domain, Standard (e.g., 6.EE.7). For HS Math, use Conceptual Category-Domain, Standard (e.g., A-REI.6). For Science, use Grade, Strand, Concept, PO (e.g., 4.1.3.1).*

Lesson (add as needed)	**Instruction**	**Student Activities**
1	**Objective: Students will be able to break the numbers 11 or 12 into groups of 10 and identify the leftovers.** **Intro:** Teacher asks a volunteer to lead counting to 40 starting at the number 7. Call another student to lead counting by 2's to 30, another student to lead counting by 5's to 50, and another student to lead counting by 10's to 100. **I do:** Teacher explains to students that they are going to continue learning about numbers and how they can be broken apart. Teacher shows students a group of 11 straws. Asks, *How many straws do I have? How do you know? What can I do to find out? Don't forget to DOUBLE CHECK!* Teacher says great! I have 11 straws and now teacher is going to decompose my number; that means to take it apart. The teacher takes it apart into a group of 10 and some leftovers and says that s/he is going to make a group of 10. Teacher counts aloud and push straws to create a group of 10. Teacher picks up the 1 leftover, saying this is a leftover! This straw doesn't have a group. It is what is left, after s/he created the group of 10. Teacher shows tens and ones chart. Teacher explains that students can now use this chart to help write a number the matches how many straws s/he has. Teacher points to the number 1 on the 12. So what is this number? It looks like a one, but how many straws is it really? Teacher asks *How many straws did I have altogether? How do I write the number 11?* That's right! Teacher states again, *I decomposed the number 11. I had 1 group of 10 and 1 leftover* (point to the single group of straws). The first 1 in 11 represents the 1 group of 10 (point) and the 2nd 1 in the number represents the leftovers I had (point). So, the teacher had one group of 10 and 1 leftover. **I do/You help:** Teacher places a bag of 12 straws at the front of the class, asks, *Who would like to help me count this bag of straws?* Students count the objects aloud. *How many straws do we have? How do you know?* Teacher says *let's decompose the number 12.*	Students count chorally and then one student leads the transition. Students are seated at their desk, manipulatives are on their desk but they are not touching them yet. Students respond to teacher's questions as s/he decomposes numbers. Students respond saying 10 and that there were 11 straws all together. Students respond by saying you write an 11 with one ten and one one. One student helps the teacher and responds to the questions. Another

	Decompose means to break apart. What does it mean to decompose? Teacher says we know there are 12 straws and has students make groups of 10. *How many groups of 10 do we have?* Teacher shows students how to put a rubber band around the group of 10. Teacher shows tens and ones poster. *Where does my group of ten go on the poster?* Teacher asks *How many leftovers do I have? Where do my 2 leftovers go on the poster?* Teacher points to the number 1 on the 12. *So what is this number? It looks like a one, but how many straws is it really?* Teacher points to the number 2 on the 12. *So what is this number?* Yes, it is just a regular 2. **You do/I help:** Teacher instructs students to open bag of objects in front of them. Teacher asks *What do I need to do first? How many do we have?* Teacher reminds students that we always have to double check. Teacher asks *Then what do I do? What do I need to do to break them apart*? *How many do we have leftover? How do you know?* **You do:** Teacher tells students that today they are going to be decomposing 10, 11, and 12 objects! Teacher explains that they will work in partners. One student will take a bag of objects and decompose it. *What do you need to do to take break you numbers apart?* Students will tell your partner how many groups of 10 they have and how many are leftover. Then partners will switch and the other student will have a chance to decompose the objects! Final activity: Teacher will model how to complete the independent worksheet at the end of the lesson. The worksheet has two problems and students will complete independently. Scholars will circle the group of 10 stars on the worksheet and identify how many leftovers there are. Students will then fill-in the box/table to the right to correspond with the pictures. Ex. 1 group of 10, 1 would go under the tens. 3 leftovers, 3 would go under the ones.	student answers what the definition of decompose is, which is to break apart a number. Student responds saying that there is only 1 group of ten. Another students responds saying that the group of tens goes under the tens section on the poster. And that the leftovers of 2, goes under the ones section on the poster. Students respond to final check for understanding questions. Students open their bag of objects and help the teacher remember the steps. Students say that first you need to count the objects, double check, and then decompose by making groups of ten. Students work in pairs to decompose numbers. Teacher reminds students when it is time to switch partners and asks several final clarifying questions before s/he sends students off to try decomposing numbers on their own. Students work with a partner to complete the activity. Students stop working in pairs and complete final worksheet.
2	**Objective: Students will be able to break the numbers 13, 14, 15, 16, 17, 18 or 19 into groups of 10 and identify the leftovers.** **Intro:** Teacher asks a volunteer to lead counting to 40 starting at the number 12. Call another student to lead counting by 2's to 30, another student to lead counting by 5's to 50, and another student to lead	Students count chorally and then one student leads the transition.

	counting by 10's to 100. **I do:** Teacher explains that students are going to continue learning about numbers and how they can be broken apart. Teacher shows students a group of 11 straws. Teacher asks students *How many straws do I have? How do you know? What can I do to find out? Don't forget to DOUBLE CHECK!* Teacher says *I have 13 straws. I'm going to decompose my number; that means to take it apart. I want to take it apart into a group of 10 and some leftovers. I'm going to make a group of 10.* Teacher counts aloud and push straws to create a group of 10. Teacher picks up the 3 leftovers and says *These straws don't have a group. So sad! It is what is left, after I created my group of 10.* Teacher shows the tens and ones chart. Says *I am going to put my group of ten over her under the tens. I am going to put a rubber band around the group of ten to show that it is a group of 10 straws.* Teacher says that *the lonely 3 straws will be under the ones. This is where our leftover go.*	Students are seated at their desk, manipulatives are on their desk but they are not touching them yet. Students respond to teacher's questions as s/he decomposes the number 13.
	Teacher says that we can now use this chart to help write a number the matches how many straws I have. Teacher asks students - *How many straws did I have altogether? How do I write the number 13?* Teacher reminds students that *When I decomposed the number 13. I had 1 group of 10 and 3 leftovers. The 1 in 13 represents the 1 group of 10 and the 3 in the number represents the leftovers I had. So, I had one group of 10 and 3 leftovers or 13.*	Students respond with 13, and that you write the number 13 with a 1 and a 3.
	I do/You help: Teacher places a bag of 14 counters at the front of the class and asks who would like to help count this bag of straws? A student counts out loud and the teacher asks *How many straws do we have? How do you know?* Teacher tells the class that we are going to decompose the number 14. Teacher asks students *What does it mean to decompose? What does it mean to decompose a number?* Teacher reminds students that we have 14 counters. Teacher tells students that we are going to make groups of 10. *How many groups of 10 do we have? Let's put a rubber band around the group of 10.* Teacher shows tens and ones poster. *Where does my group of ten go on the poster?* What about these other straws? How many leftovers do I have? Where do my 4 leftovers go on the poster?	One student comes to the front to help count and responds to questions about decomposing the number 14. Students respond that the decompose means to break apart and that to decompose a number means to break apart a number.

	You do/I help: Teacher says that students are now going to do the same thing for the bag objects you have in front of them. Teacher asks *What do I need to do first? How many do we have? We always have to double check. Then what do I do? What do I need to do to break them apart? How many do we have leftover? How do you know?* **You do:** Teacher explains to students that today they are going to be decomposing 13, 14, 15, 16, 17, 18 or 19 objects! Students will work in partners. One student will take a bag of objects and decompose it. Teacher again checks for understanding by asking *What do you need to do to take break you numbers apart?* One partner will tell the other how many groups of 10 they have and how many are leftover. And then partners will switch. Teacher will pull a group of lower level students to the back table for small group instruction. Teacher instructs students to complete a final worksheet.	Students say that we have one group of ten, the group of ten goes under the tens place on the poster, the other straws are leftovers and there are 4 leftovers which go under the ones. Students respond that first they need to count the objects, double check, then decompose, make a group of 10 and count how many are left over. Students respond to the check for understanding questions. Students work in partners. Final Worksheet: Students receive an image of X number of straws. Students are asked to decompose the number and draw the straws as groups of tens or ones onto a place value chart. Then they fill in the blank when the sheet asks how many groups of tens and how many groups of ones?
3	**Objective: Students will be able to compose numbers 11-15.** **Intro:** Teacher asks a volunteer to lead counting to 40 starting at the number 5. Call another student to lead counting by 2's to 30, another student to lead counting by 5's to 50, and another student to lead counting by 10's to 100. **I do:** Teacher explains that now that students understand how to take apart numbers, today students are going to learn how to put numbers together or compose numbers. *What does compose mean?* Teacher wants to make the number 11. Teacher says s/he wants to figure out how many parts it takes to make 11. Teacher counts straws. Once s/he gets to ten s/he stops and thinks out loud, *Ok, I just got to ten; I know that ten is a part of 11.* Teacher groups the ten and places it on the poster, then starts counting 10…11. There is only one left so the teacher knows that the 1 will go in the ones column. Teacher records this on her/his paper by drawing ten straws with a rubber band in the tens column and one straw in the ones column. Underneath the chart the teacher explains to students how we can show this as an equation.	Students count chorally and then one student leads the transition. Students are seated at their desk, manipulatives are on their desk but they are not touching them yet. Students respond to the definition of compose. Students follow along as teacher composes the number 11.

	Teacher writes down ten under the tens column and 1 under the ones. So, when we write the total, we know that we have one tens and one ones which gives us 11. Teacher does another example using the number 12 and filling out another chart.  **I do/You help:** Teacher continues by asking for a volunteer to help compose the number 13. *What does compose mean again?* Teacher and students walk through the same lesson with the number 13. **You do/I help:** Teacher now tells students they are going to play a game where they have 11-15 written on square pieces of paper. They have a place value mat in front of them, a worksheet that looks like the place value math and has blank equations written underneath. If a student pulls a 14, they will work together to see how many tens and how many ones make up 14. They will draw this on their worksheet and then fill in the equation. The teacher conferences with the low group and provides additional support as needed. **You do:** Students return to their seat and the teacher passes out a worksheet with a number given at the top (11-15). Students independently work to finish the worksheet.	Students watch how the teacher records the equation to show that 11 is made up of two parts, 1 tens and 1ones. Students watch again as the teacher goes through the same exercise with the number 12. One student volunteers to help and the class helps the teacher figure out how to compose the number 13. Teacher and students go through the same exercise, with the teacher asking how many tens do we have and the students say 1. And then asking how many ones do we have, and the students respond 3. They represent the composing of 13 as an equation. Students learn how to play the math game and then start working in partners. Students return to their original seat if they had to move, and now work independently to complete the worksheet.
4	**Objective: Students will be able to compose numbers 16-19.** **Intro:** Teacher asks a volunteer to lead counting to 40 starting at the number 9. Call another student to lead counting by 2's to 30, another student to lead counting by 5's to 50, and another student to lead counting by 10's to 100.  **I do:** Teacher explains that now that students are going to practice composing even bigger numbers today! *What does compose mean?* Teacher wants to make the number 17. Teacher says s/he wants to figure out how many parts it takes to make 17. Teacher counts straws. Once s/he gets to ten s/he stops and thinks out loud, *Ok, I just got to ten; I know that ten is a part of 17.* Teacher groups the ten and places it on	Students count chorally and then one student leads the transition. Students are seated at their desk, manipulatives are on their desk but they are not touching them yet. Students respond to the definition of compose. Students follow along as teacher composes the number 17.

	the poster, then starts counting *10,11, 12, 13, 14, 15, 16, 17. There are seven more straws. I know that does not equal ten, so I will add seven straws to the ones column.* Teacher records this on her/his paper by drawing ten straws with a rubber band in the tens column and seven straws in the ones column. Underneath the chart the teacher explains to students how we can show this as an equation. Teacher writes down ten under the tens column and 1 under the ones. So, when we write the total, we know that we have one tens and seven ones which gives us 17. **I do/You help:** Teacher continues by asking for a volunteer to help compose the number 16. *What does compose mean again?* Teacher and students walk through the same lesson with the number 16. **You do/I help:** Teacher now tells students they are going to play a game where they have 16-19 written on square pieces of paper. They have a place value mat in front of them, a worksheet that looks like the place value math and has blank equations written underneath. If a student pulls a 17, they will work together to see how many tens and how many ones make up 17. They will draw this on their worksheet and then fill in the equation. The teacher conferences with the low group and provides additional support as needed. **You do:** Students return to their seat and the teacher passes out a worksheet with a number given at the top (16-19). Students independently work to finish the worksheet. For students who are ready, the teacher provides some challenge problems of 22, 27 and 31. Teacher pulls the low group to keep working on 11-14 if necessary.	Students watch how the teacher records the equation to show that 17 is made up of two parts, 1 tens and 7 ones. One student volunteers to help and the class helps the teacher figure out how to compose the number 16. Teacher and students go through the same exercise, with the teacher asking how many tens do we have and the students say 1. And then asking how many ones do we have, and the students respond 6. They represent the composing of 16 as an equation. Students learn how to play the math game and then start working in partners. Students return to their original seat if they had to move, and now work independently to complete the worksheet.
5	**Intro:** Teacher asks a volunteer to lead counting to 40 starting at the number 7. Call another student to lead counting by 2's to 30, another student to lead counting by 5's to 50, and another student to lead counting by 10's to 100. For transition: Teacher chooses one student to lead the call and response: rest of the students will repeat what the leader said with 2 claps. Students complete assessment. Once they are complete they can participate in math centers involving composing and decomposing numbers.	

Paste Summative Assessment Here [assessment will be enlarged to accommodate kindergarteners]

Compose the following numbers:

1. **13**

Tens	Ones

_____ + _____ = __ __

2. **16**

Tens	Ones

_____ + _____ = __ __

3. **11**

Tens	Ones

_____ + _____ = __ __

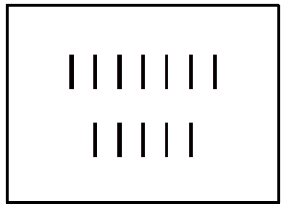
4. **19**

Tens	Ones

_____ + _____ = __ __

Decompose the following numbers.

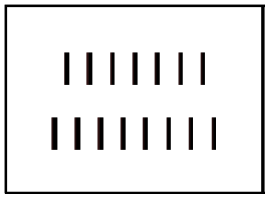
5. Total straws_____



Tens	Ones

How many groups of tens? ___
How many groups of ones? ___

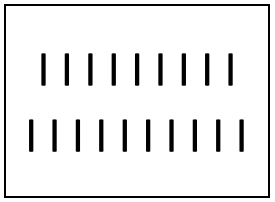
6. Total straws_____



Tens	Ones

How many groups of tens? ___
How many groups of ones? ___

7. Total straws_____



Tens	Ones

How many groups of tens? ___
How many groups of ones? ___

Paste Answer Key/Scoring Rubric Here: <u>Total score is out of 17, students need 14 to master the standard.</u>

1. Students write 10 straws in the tens column, three in the ones column and write 10 + 3= 13 (2 points)
2. Students write 10 straws in the tens column, six in the ones column and write 10 + 6= 16 (2 points)
3. Students write 10 straws in the tens column, one in the ones column and write 10 + 1= 11 (2 points)
4. Students write 10 straws in the tens column, nine in the ones column and write 10 + 9= 19 (2 points)
5. Students identify total number, write 10 straws in the tens place, two straws in the ones place and 1 and 2 are the answers (3 points)
6. Students identify total number, write 10 straws in the tens place, five straws in the ones place and 1 and 5 are the answers (3 points)
7. Students identify total number, write 10 straws in the tens place, nine straws in the ones place and 1 and 9 are the answers (3 points)