Curriculum Sample Template – 8 Pages Max. (12 pages for integrated ELA sample)

Grade Level	First Grade	**Content Area**	Math
Course Title (grades 9-12 Only)	N/A		
Expected Prior Knowledge *List the knowledge/skills mastered earlier in the year that are foundational to the mastery of the Required Standard(s).*	Synergy first grade students will be able to count objects up to 20. They will be able to recognize and write numbers 0 through 20. Students will have a previous understanding of the vocabulary and the following vocabulary terms will be reviewed: equal, equal to, same as, twenty, comparing, unknown, adding, subtracting, number bonds. Students will have previously worked to build numbers pairs for numbers through 10.		
Alignment to Program of Instruction *Describe how the methods of instruction found in this sequence of lessons align to the Program of Instruction described in the application package.*	Synergy teachers will engage students in cooperative learning structures throughout the lesson. Lessons will be built using the Gradual Release of Responsibility. Synergy teachers will monitor student understanding and adjust instruction based upon student responses. Instructional strategies such as cooperative learning, differentiation, questioning, and meta-cognition will be used consistently during instruction.		
Standard Number* and Description *The standard number and description of the Required Standard(s) being instructed and assessed to mastery in the curriculum sample.*	**1.OA.A.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, *e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.***		
Materials/Resources Needed *List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables)*	Two-colored counting chips, number bond recording sheet, connecting cubes,		

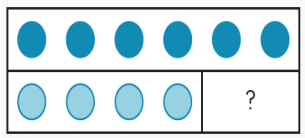
* ***Standard Number****: For English Language Arts (Reading and Writing), use Grade, Strand, Standard (e.g., 3.RI.2). For K-8 Math, use Grade, Domain, Cluster, Standard (e.g., 6.EE.B.7). For HS Math, use Conceptual Category-Domain, Cluster, Standard (e.g., A-REI.C.6).*

Lesson (add as needed)	**Instructional Strategies -** *List and describe teacher actions, lesson by lesson, which will provide students with opportunities to engage the grade-level rigor defined by the Required Standard(s). Indicate alignment of instructional strategies to specific component(s) or content/skill(s) of the Required Standard/component.*	**Student Activities -** *Describe the activities, lesson by lesson, in which students will engage to allow them to master the grade-level rigor defined by the Required Standard(s). Indicate alignment of student activities to specific component(s) or content/skill(s) of the Required Standard/component.*
1	**Objective: The students will use addition within 20 to solve word problems by adding to or putting together.** **Introduction:** The teacher will tell the class that they are going on a picnic and that there is a picnic table that seats 5 children. The teacher will invite 5 students up to the front. 3 of the students will sit down and the class will count on the remaining two students to make a total of 5. The teacher will draw a number bond on the Smart Board and fill in the 5 in the total. The teacher will ask the students to explain what the 5 means. Students will think, pair, and share their answers while describing what two numbers are needed to finish the number bond based upon the story problem. Write 3 + * = 5 on the board and have the students think, pair, and share what number is missing from the problem related to the number bond. Repeat with similar story problems if needed. Explain to the students that you are using a symbol to represent the unknown addend. **I-Do (Modeling)** The teacher will show and read aloud the story problem: *4 children are sitting, more children sit down, now there are 7 children. How many more children sit down?* Have students take yellow counters and represent the number of students sitting down while the teacher moves counter pictures to represent the problem on the SmartBoard. Next, ask the students, *How can we use the two-colored counters to count on and solve this problem?* Have students think, pair, and share answers. Call on random student. Then, on the SmartBoard, model moving the red counters by counting on to reach 7. Model counting on and then model the number bond with 7 as the total, 4 as the unknown. Ask students to think, pair, and share the number missing while explaining their answer. Last, use the number-bond to create the equation for the students. Repeat with different story problems if needed for differentiation. **We-Do (Guided Practice):** The teacher will show and read aloud the story problem: *There are 7 balls. 5 are soccer balls and the rest are kick-balls. How many kick-balls are there?* Have the students write the total in the number bond. Next, have them write the number of balls known. (5). With the students, create an equation to represent this number bond. 5 + * = 7. Have students use counters and count out 5. With a different color counter, have students count on with the teacher to make seven. Ask the students, *When you read a new problem, how would*	Students will participate in the "acting out" of the problem. Students will think, pair, and share the two numbers that are needed to finish the number bond. Students will explain their answers to their partners. Students will participate in manipulating the counters as the teacher models the problem. Students will think, pair, and share how to use the counters to count on and solve the problem. Students will think, pair, and share the missing numbers in the problems. . Students will fill out the number bond as they figure out the problem. Students will write equations and use counters to count out the number of counters needed to solve the equation. Students will think, pair, and share how they solved the problem and what their answers are.

	you decide where to put the blank in a number sentence? Have students think, pair, and share answers. Continue to repeat this process using different word problems and numbers. The teacher will give students random word problems that include start unknown and addend unknown. Partners will work together building the problem with counters, showing work with a number bond and writing an equation to go with the problem. **Check For Understanding:** The teacher will observe students recording their representation and manipulative use to see if an additional we-do is needed. If 80% of the students get it then they move to independent practice and the other 20% assemble in a small group for re-teaching or more we-do practice. **You-Do (Independent Practice):** Students return to their seat and complete an addition sheet with similar problems independently. **Discussion Circle:** Teacher provides question. *If there are 7 red counters showing and I have a total of 15, can you place 4 yellow counters in your unknown spot?* Why or why not? The teacher will ask students to think, pair and share. The teacher will use random reporter to hear student responses.	Students record answers and respond to teacher check for understanding answers. Students will complete the addition sheet independently. Students will think, talk with their partner, and be ready to share when called on.
2	**Objective: The students will use subtraction within 20 to solve word problems by subtracting to or taking away from.** **Introduction:** Pose the question. There is an ice cream cone with 10 scoops of ice cream on it. Show the students a cube train that has 10 cubes and tell them that those are what you are going to use to represent the scoops of ice cream. Tell the students that you are going to eat 3 scoops of ice cream. Break off (take away) 3 cubes and then ask the students how many scoops that you have left. Have the students think about the problem, pair and share how many are left. **I-Do (Modeling)**: The teacher will show and read aloud the story problem: *There were 13 pieces of pizza. 6 pieces of pizza were eaten.* Show the students using the cubes. Start with 13 and explain that you will use cubes to represent the pieces of pizza. Next, ask the students, *How many of the pieces were eaten?* Randomly call on a student. Once the students say 6, "take away" the 6 cubes from the 13. Have students chorally count the number of cubes/pieces of pizza that are left. Then, on the document camera, model writing the equation 13 – 6 = *. Continue working subtractions problems and include a story problem that has an unknown number. For example, "5 apples were on the table. Jose ate some apples. Then there were 2 apples left. How many apples did Jose eat? Use the cubes to model how to work the problem and then model the equation. During this process, ask students to think, pair and	Students will think, pair, and share how many ice cream scoops are left in the cone. Students will answer the questions posed by the teacher. Students will chorally count the number of pieces of pizza are left from the problem. Students will think, pair, share how to solve/write the equations that goes with the story problem.

	share how to solve/write the equation that goes with the story problem. **We-Do (Guided Practice):** Give each student 15 cubes and a whiteboard with a marker. Pose the question: *"7 toy cars are on the floor. 2 of the cars drove away. How many cars are left?"* Have the students use the cubes to act out the story problem (start with 7 cubes and take 2 away). With guidance, have the students think, pair, and share with their partner how they are going to write the equation for the problem. Have the students write their equation on the white board. Continue to use this process for different problems. Provide students with a subtraction problem worksheet. Have partners work together to solve the problems. Partner A – reads the problem and determines the total number of items. Partner B – determines the number to be taken away/or the number that is left if given. Both partners work the problem and write the equation and answer. **Check For Understanding:** The teacher will observe students recording their representation and manipulative use to see if an additional we-do is needed. If 80% of the students get it then they move to independent practice and the other 20% assemble in a small group for re-teaching or more we-do practice. **You-Do (Independent Practice):** Students return to their seat and complete a recording sheet with similar problems independently. **Discussion Circle:** Teacher provides question. *If I buy 7 apples and I eat 4, will I have 5 left?* Why or why not? The teacher will ask students to think, pair and share. The teacher will use random reporter to hear student responses.	Students will use connecting cubes to "act" out the story problem of 7 cars minus 2 problems. Students will think, pair, and share with a partner how to write the equation for the problem. Students will write the equation on their whiteboard. Partners will work together, using identified roles to determine solution to the problem. Students will write the answer to the problem on their worksheet. Students record answers and respond to teacher check for understanding answers. Students will complete the final worksheet. Students will think, pair, share to discuss question and then respond to the question posed by the teacher.
3	**Objective: The students will use addition and subtraction within 20 to solve word problems by subtracting to or taking away from.** **Introduction:** The teacher will call 5 students up to stand in a line in front of the class. The teacher will pose the problem: *Twenty children are playing ball. Three children leave. How many children are still playing ball.* Act out the problem with the students. The teacher will then ask the children: *How many students are still playing ball?* The teacher will ask the children how they think the problem would be represented as a subtraction sentence. The teacher will write the correct equation on the board: 5 – 3 = 2. Introduce the "counting-on" strategy to the students. Using the same problem, have 5 students stand in a line. Ask the 3 children to step away. Tell the class that you are going to start with the 3 children and then "count on" to 5. Say, "Three" and hold up two fingers one at a time and count, "four, five." Ask the students to think, pair, and share how the teacher counted on. Continue this process with different word problems. **I-Do (Modeling):** The teacher will pose the problem: 6 children are playing ball. 4 go home early. How many children are left? Draw 6 figures up on the Smart Board. Have students discuss what is happening in the problem (What they	Students will participate in acting out a problem. Students will respond to teacher questions about the problem. Students will think, pair, and share how the teacher counted on. Students will discuss the premise of the word problem (what is happening and what they need to find out).

	know and what they need to find out). Ask students, *"Close your eyes and think about the problem. How can you tell in your head how many children are left after 4 go home?"* Have students think, pair, and share their answer. Show the students using the counting on strategy to solve this problem and also how that relates to the subtraction problem 6 – 4 = 2. Repeat this process with another subtraction word problem while using number that become larger and go up to 20.	Students will think, pair, and share their answers.
	We-Do (Guided Practice): Read the problem: "There are 14 cups. 5 are big. The rest are small. How many are small?" Give students time to think about the problem. Have students draw the first part the problem on their whiteboards. Once students have drawn the 8 cups, ask the students to think about what they would do next. Have students think, pair, and share their responses. Call on random students to give answers. Have students then circle the 5 big cups. Using fingers, have students count on from 5 to figure out how many more are needed to get to 8. Have students write both an addition problem and subtraction problem to go with this problem. 14 – 5 = 9 and 5 + * = 14.	Students will think about the word problem and then draw the first part of the word problem on their white boards. Students will think, pair, and share the different steps to the word problems. Students will circle the 5 cups drawn from the word problem. Students will use their fingers to count on from 5 to get to 8. Students will write both an addition and a subtraction problem to represent the word problem.
	Give students different types of similar problems. For example, "There are 20 buttons. 12 buttons are square. The rest are round. How many buttons are round? and There are 11 fish in the weeds. 3 swim away. How many are left?" Have students work these problems on their whiteboards showing a visual representation and an addition and a subtraction problem.	Students will work problems out on their whiteboards showing a visual representation and an equation.
	Check For Understanding: Teaching scaffolding will occur at this time. Ensure students understand the concept before moving on to independent practice. If 80% of the students get it then they move to independent practice and the other 20% assemble in a small group for re-teaching or more we-do practice.	Students will answer questions that the teacher poses during check for understanding.
	You-Do (Independent Practice): Students return to their seats and complete the word problem addition and subtraction sheet independently.	Students will complete an addition and subtraction worksheet independently.
	Discussion Circle: Teacher provides question. *If I have 17 students playing soccer and 3 have to go home, how many will I have left?* The teacher will ask students to think, pair and share. The teacher will use random reporter to hear student responses.	Students will think, pair, share to discuss question and then respond to the question posed by the teacher.
4	**Objective: The student will solve subtract to compare word problems to find the difference.**	
	Introduction: The students will have already been taught more/less. Say to the students, "*Suppose it is cold outside. You would want a warm hat. Imagine that there are 7 children getting ready to go outside but there are only 3 hats. We need to figure out how many children will not have an hat."* Call 7 students up to the front of the classroom. Have students chorally count the number of students. Next, tell the students that they can compare the hats with the	Students will participate in "acting out" the word problem. Students will chorally count the number of students standing. Students standing will hold a hat if they are one of the first 3 students standing. Students will think, pair, and share how they figured out how many students do not have a hat. Students will respond to teacher questions.

	children by matching 1 hat to each student. Give out 3 hats – one to each of the first 3 children. Ask the students, "Are there more hats or more children?" Have students think, pair, and share how they figured out how many students do not have a hat. Call on random students to share.	
	I-Do (Modeling) The teacher will pose the problem, *"There are 3 pieces of cheese and 9 mice. Are there fewer mice or pieces of cheese? How many mice do not get cheese?"* Tell the students that in order to find how many mice do not have cheese, we need to match the mice to the cheese. On the Smart Board, draw 9 circles to represent the mice. Draw 3 squares to represent the pieces of cheese. Have the students think, pair, and share if there are fewer mice or fewer pieces of cheese. Then, draw a line to connect one piece of cheese (square) to one mouse (circle). Ask the students, "What number sentence would you use to solve this problem?" Have the students think, pair, and share their answer. Write the problem 9 – 3 = 6. Say, *"6 mice will not get cheese."* During the lesson, the teacher can display the part/part whole graphic to show students how to line up their pictures. (see picture to the right). Continue various problems that involve number up to 20.	Students think, pair, and share if there are fewer mice or fewer pieces of cheese. Students think, pair, and share their answer to the problem. 
	We-Do (Guided Practice): Have students get 10 red and 10 yellow counters to draw the pictures that go with the word problem. Pose the problem, *"One box has 4 red markers and the other box has 6 yellow markers. How many more yellow markers are there?"* Have the students count out 4 red counters and then count out 6 yellow counters. Ask the students to think about which one has more. Have them share with their partner which color is more and how they know. Next, ask the students, *"How can we find out how many more yellow markers there are?"* Have the students, think, pair and share how they know. Have the students match up the counters. Ask the students to write the equation and picture on their whiteboard to show how they know. Continue to present students with various problems that allow them to determine what is more or fewer while being able to solve the problem.	Students will get 20 counters (10 red and 10 yellow). Students will count out counters that represent each part of the word problem. Students will share with their partner which color has more. Students will think, pair, and share how they know their answers. Students will match their counters – one to one correspondence. Students will draw pictures to represent the word problem and write the equation that correlates. Students will continue to solve various problems as stated previous.
	Check For Understanding: The teacher will observe students recording their representation and manipulative use to see if an additional we-do is needed. If 80% of the students get it then they move to independent practice and the other 20% assemble in a small group for re-teaching or more we-do practice Teacher will scaffold the lesson for students who are having difficulty or those that need more challenge.	Students will share and record answers. Students will work with partners to solve problems. Students will respond to teacher-elicited questions.
	You-Do (Independent Practice): Students will complete the "subtract to compare in word problems" worksheet.	Students will independently complete the "subtract to compare in word problems" worksheet.
	Discussion Circle: Teacher provides question. *If I have 8 apples and 6 bananas, how do I know how many more apples there are?"* The teacher will ask students to think, pair and share. Students will solve the problem. The teacher	Students will think, pair, share to discuss question and then respond to the

	will use random reporter to hear student responses.	question posed by the teacher.
S.A.	*Provide an opportunity for the student to complete the summative assessment items which is clearly separate from instruction and guided or independent practice, and in which the student is assessed independently. In the Student Activities column, provide a brief description of the summative assessment (S.A.) items that will allow students to demonstrate mastery of the rigor of the Required Standard(s)/components, and the context in which the items will be administered.*	The summative assessment includes 4 items that will test student knowledge and understanding of standard **1.0A.A.1**. Students will demonstrate understanding by completing problems that include a word problem that includes adding and subtracting with known and unknown numbers. Students will show high proficiency of the standard by writing equations, completing visual representations of the problem, number bonds, and showing evidence of their answers.

Summative Assessment Items and Scoring: *Below, provide at least three Summative Assessment Items that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the Required Standard(s). For each assessment item, provide an answer key or scoring rubric which clearly describes how assessment items are to be scored and how points will be awarded, such that mastery of the application of the content and/or skills as defined by the grade-level rigor in the Required Standard is clearly demonstrated by an acceptable score.*

Summative Assessment Item 1 (clearly identify answer key/scoring rubric, and acceptable score):

Draw a picture, write an equation, and draw a number bond to solve the problem. Cite your evidence. Be sure to use a symbol for the unknown. (1 pt. for correct picture, 1 pt. for correct equation, 1 pt. for number bond, and 1 pt. for correct answer and 1 pt. for evidence) 5 points total

14 horses are in the field. 5 are brown and the rest are black. How many horses are black?

Answer: Students will draw 5 brown and 9 black horses. Equation = 14 – 5 = 9 or 5 + 9 = 14. Student will draw a number bond to show 14 as the whole and 5 and 9 as parts.

Summative Assessment Item 2 (clearly identify answer key/scoring rubric, and acceptable score):

Draw a picture, write an equation, and draw a number bond to solve the problem. Cite your evidence. Be sure to use a symbol for the unknown. (1 pt. for correct picture, 1 pt. for correct equation, 1 pt. for number bond, and 1 pt. for correct answer and 1 pt. for evidence) 5 points total

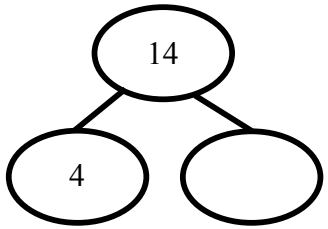
Sue has 14 flowers

She gives away some

Now Sue has 4 flowers.

How many flower did Sue give away?

_____ - _____ = _____



Answer: The student will draw a picture showing 14 flowers and circle 4 of the flowers and cross of the remainder of the flowers. Equation: 14-X=4 correct answer 10. Student will record 10 in the number bond.

Summative Assessment Item 3 (clearly identify answer key/scoring rubric, and acceptable score):

Draw a picture, write an equation, and draw a number bond to solve the problem. Cite your evidence. Be sure to use a symbol for the unknown. (1 pt. for correct picture, 1 pt. for correct equation, 1 pt. for number bond, and 1 pt. for correct answer and 1 pt. for evidence) 5 points total

There are 6 red crayons and 13 blue crayons in the box. How many more blue crayons are there than red crayons?

Answer: The student will draw 6 red crayons and 13 blue crayons. The student will cross off 6 of the blue crayons to determine how many more blue there are than red. Equation: 13-6=X with a correct answer of 7. The number bond will show 13 as the whole and 6 and 7 as the parts.

Summative Assessment Item 4 (clearly identify answer key/scoring rubric, and acceptable score):

Draw a picture, write an equation, and draw a number bond to solve the problem. Cite your evidence. Be sure to use a symbol for the unknown. (1 pt. for correct picture, 1 pt. for correct equation, 1 pt. for number bond, and 1 pt. for correct answer and 1 pt. for evidence) 5 points total

Meg had 19 crackers. She ate 15. How many does she have left over?

Answer: The student will draw 19 crackers and cross off 15. Equation: 19-15=X or they could do 15+X=19 with a correct answer of 4. The number bond will show 19 as the whole and 15 and 4 as the parts.

Summative Assessment Item 5 (clearly identify answer key/scoring rubric, and acceptable score):

Draw a picture, write an equation, and draw a number bond to solve the problem. Cite your evidence. Be sure to use a symbol for the unknown. (1 pt. for correct picture, 1 pt. for correct equation, 1 pt. for number bond, and 1 pt. for correct answer and 1 pt. for evidence) 5 points total

Jose has 5 toy cars. He bought 8 more at his neighbor's yard sale. How many toy cars does Jose have now?

Answer: The student will draw 5 cars and then add 8 more cars to the drawing. Equation: 5+8=X. The correct answer is 13. The number bond will show 13 as the whole and 5 and 8 as the parts.

Scoring Guide		
Highly Proficient	25/25	100%
Proficient	20/25	80%
Minimally Proficient	15/25	60%
Not Proficient	<15/25	<60%