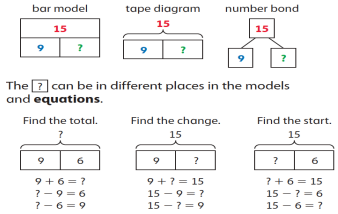
Curriculum Sample Template – 8 Pages Max. (12 pages for integrated ELA sample)

Grade Level	Second 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 second grade students will be able to count objects up to 1000. They will be able to recognize and write numbers 0 through 100. 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 on addition and subtraction problems through 20 using multiple strategies. Students will have knowledge of fact families.		
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.*	**2.OA.A.1: Use addition and subtraction within 100 to solve one and two-step word problems involving situation of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawing 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)*	Counting cubes, two different colored counters		

* ***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 and subtraction within 100 to solve one-step word problems by adding to, putting together, subtraction or taking apart.** **Introduction:** Give students two different color counters. Pose the problem: *"Your teacher has 14 stickers. Some are happy faces and some are stars. How many happy face stickers does your teacher have?"* Encourage students to think about what they know and how they would decide how many happy face stickers to solve the problem. Students will create different combinations and then share with the class. **I-Do (Modeling):** The teacher will show the problem, *"Maria ate 9 grapes. Then her dad gave her more grapes, and she ate them. Maria ate 15 grapes in all. How many grapes did Maria's dad give her?"* Draw a part/part whole bar graph on the Smart Board. Ask the students how many total grapes did Maria eat? Have students think, pair, and share their answer and write a 15 in the "whole" space on the graphic. Ask the students how many grapes Maria ate first and write a 9 in one of the "part" spaces. Put a "?" in the other "part" space. Ask the students what the "?" stands for. Have students think, pair, and share their answers with the class by random student selection. Model writing the equation: 9 +? = 15 while using metacognition to explain the equation. Ask students what strategy they would use to solve the problem and then model using a bar model, tape diagram, or a number bond to solve the problem. **We-Do (Guided Practice):** Pose the word problem: "Jose had 11 marbles. He gave some away. Now he has 6 left. How could you use a model and equation to find how many marbles Jose gave away?" Walk the students through the problem by asking, "How many marbles did Jose have all together?" Have students begin by drawing a bar model. Have them think, pair, and share what number needs to go in the "whole" part of the graphic. Have students explain their thinking for their answer. With the students, walk through the problem step by step to fill in the bar graphic and then ask students what equation represents this word problem (11 -? = 6). Continue to have students work various problems that include addition and subtraction with their whiteboards to show how they will solve the missing number. **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	Students will create combinations with counters. Students will share combinations and ideas with the class. Students will think, pair, and share the two numbers that are needed to finish the bar graph. Students will think, pair, share, and explain their answers to their partners.  Students will share the strategy they would use to solve the problem. Students will draw the problem as the teacher models the problem. Students will think, pair, and share what number needs to go in the "whole" part of the graphic. Students will think, pair, and share the equation that goes along with word problem. Students will fill in the bar graphic and solve the problem. Students will work with partners to solve the word problems.

	small group for re-teaching or more we-do practice. **You-Do (Independent Practice):** Students return to their seat and complete a one step addition and subtraction sheet with similar problems independently. **Discussion Circle:** Teacher provides question. *If Juan had 9 cookies at first and there are 4 left, did he eat 6 cookies? How do you know?* The teacher will ask students to think, pair and share.	Students will 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 addition and subtraction within 100 to solve one-step word problems by subtracting from or taking apart.** **Introduction:** Give students a white board. Pose the problem: *"Your teacher has 3 fewer boys than girls in her class. 13 students are boys and some are girls. How many girls are there in the class?"* Encourage students to think about what they know and how they would decide how many boys are in the class to solve the problem. **I-Do (Modeling):** Show the students the problem: *"A small bag holds 23 fewer golf balls than a big bag. The small bag holds 14 golf balls. How many golf balls does the bigger bag hold?"* Draw a part/part whole bar graph on the Smart Board. Explain to the students that there are parts of this problem that are known and parts that are not known. Model reading the problem and writing the known parts and unknown parts (e.g., known: small bag = 14 golf balls, known: small bag + 23 = bigger bag, unknown: How many golf balls are in the bigger bag?). Then, explain to the students that you are going to draw a picture that represents the known and unknown parts. Use the bar model to show the part/part/ whole relationship and label the parts. Ask the students, *"How does the picture help you compare the number of balls in the big and small bag?"* Have the students think, pair, and share their answers and then call on a student to answer. Next, model how to write the equation that goes with the problem. Here it is important to write an addition equation as well as a subtraction equation to show the students the different options used to solve the problem. Have the students explain to their partner how you can write and addition and subtraction problem to go with this word problem. **We-Do (Guided Practice):** Pose the word problem: *"Jane has 32 red water balloons and some blue water balloons. There are 11 fewer red balloons than blue balloons. How many red water balloons does Jane have?"* Walk the students through the problem by asking, "What do we already know about this problem?" Have students think, pair, and share what they know and write it on their white boards. Next, have students begin by drawing a bar model, tape diagram, or number bond. Have them think, pair, and share what numbers need to go in each part of the graphic. Have students explain their thinking for their answer. With the students, walk through the problem step by step to fill	Students will write on whiteboards different ideas about how to figure out how many boys are in the class. Students will review different strategies that they know when solving equations. Students will think, pair, and share answers to the question about the unknown parts of the problem. Students will explain to their partner how you can write addition and subtraction problems that go with each word problem that they are working on. Students will answer the questions posed by the teacher. Students will think, pair, share how to solve/write the equations that goes with the story problem. Students will draw pictures to go with the problems. Students will write what they know on the whiteboards. Students will draw a bar model, tape diagram, and/or number bond to go with the problem.

	in the graphic and then ask students what equation represents this word problem (32 + 11 = ____, or ____ - 11 = 32). Have students solve the problem using previous strategies learned. Continue to have students work various problems that include addition and subtraction with their whiteboards to show how they will solve the missing number. **Check For Understanding:** The teacher will observe students recording their representations and equations 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 one step addition and subtraction sheet with similar problems independently. **Discussion Circle:** Teacher will pose question from the "I Do". Pose the question, " A friend says that there are 21 golf balls in the bigger bag. What do you think she did wrong when solving this problem."? Have students think, pair, and share the possible misconceptions. Students should discuss that because it said "fewer" that she subtracted the original amount.	Students will explain their thinking for their answer. Students will solve problems on the whiteboard. Students record answers and respond to teacher check for understanding answers. Students complete the final independent practice worksheet. Students will think, pair, and share to discuss the misconceptions posed by the teacher in during discussion circle.
3	**Objective: The students will use addition within 100 to solve two-step word problems by adding to or putting together.** **Introduction:** Pose the problem: *"Your cousin is going to the zoo. There are two parent and 4 children in the van. They stop at school and pick up his sister. How many people are in the van now?"* Encourage students to think about what they know and how they would decide how many people are in the car. Students will create combinations with the two – colored counters and then share ideas with the class. **I-Do (Modeling):** Explain to students that they are going to move into solving two-step word problems. Begin modeling a two-step word problem by breaking the problem into steps. Pose the problem to the students: *"Pete had 4 red matchbox cars and 7 yellow matchbox cars. He then bought 8 more matchbox cars. How many matchbox cars does Pete have now?"* Begin by drawing a tape diagram on the Smart board. Ask the students, *"How many red and yellow matchbox cars are there?"* Have the students think, pair, and share the numbers that go into the tape diagram. Fill in the model under the document camera. Have the students help write the equation by thinking and discussing with their partner. Ask the students, "Why does it make sense to add the red and yellow cars together first?" Ask the students, "How many new cars did Pete buy?" Using a new tape diagram, fill in the number of red and yellow cars in one "part" and then put the "8" in the other "part". Model writing the equation: 11 + 8 = 19. Explain to the students that they need to	Students will use counters to show different ideas about how to figure out how many people are in the class. Students will share ideas with the class. Students will review one-step word problems. Students will respond to teacher questions about the problem. Students will think, pair, and share the numbers that go into the tape diagram. Students will write equations that go with the word problems.

	break this problem into two parts in order to solve the problem. Continue to model different problems if students need to see the process again. **We-Do (Guided Practice):** Pose the word problem: *"Ken has 5 puppies and 7 kittens. 2 of the kittens fell asleep. How many animals are awake?"* Walk the students through the problem by asking, "What do we already know about this problem?" Have students think, pair, and share what they know and write it on their white boards. Next, have students begin by drawing a tape diagram or number bond for the first part of the problem. Have them think, pair, and share what numbers need to go in each part of the graphic. Have students explain their thinking for their answer. With the students, walk through the problem step by step to fill in the graphic and then ask students what equation represents this word problem (Step 1 – 5 + 7 = 12. Step 2 – 12 – 2 = 10). Have students solve the problem using previous strategies learned. Continue to have students work various problems with their partners that include addition and subtraction with their whiteboards to show how they will solve the missing number. **Check For Understanding:** The teacher will observe students recording their representations and equations 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 two-step addition and subtraction sheet with similar problems independently. **Discussion Circle**: Explain that some of the questions required the students to add and in some cases the problems required you subtract. Ask students to think, pair, and share what parts of the problems clue them in to make the decision of to add or subtract. Guide the discussion to include that it is important to read ALL parts of the problem.	Students will discuss the premise of the word problem (what is known and what they need to find out). Students will think, pair, and share their answers and write it on the whiteboard. Students will draw a tape diagram or a number bond for the first part of the problem. Students will think, pair, share, and explain thinking for their answer. Students will fill in the graphic organizer. Students will write equations. Students will work with partners to solve problems. Students will work problems out on their whiteboards showing a visual representation and an equation. Students will answer questions that the teacher poses during check for understanding. Students will complete an addition and subtraction worksheet independently. Students will think, pair, share to discuss question and then respond to the question posed by the teacher.
4	**Objective: The students will use subtraction within 100 to solve two-step word problems by subtracting from or taking away.** **Introduction:** Write this equation under the document camera: 8 – 6 = 2 and 2 + 4 = 6. Have students work with a partner to come up with a two-step word problem using the counters to go along with the steps given on the board. **I-Do (Modeling):** Share that students will be continuing two-step word problems while learning different ways to solve the problems. Show the students the problem, *"There are 31 pennies in a jar. Dan took out 11 pennies. Then, his dad added some more pennies to the jar. Now there are 42 pennies in the jar. How many pennies did his dad add?"* Model the problem using many different strategies such as pictures and number lines. Draw the picture of 31 pennies for the students and cross off 11 pennies. Then add more pennies to	Students use counters to create a word problem. Students will share the word problem with a partner. Students will write the problem on a paper. Students will review working on two-step word problems. Students will chorally count the number of pennies that were added to get to 42. Students will respond to teacher questions.

	make 42 total. Have the students chorally count the number of pennies that were added to get to 42. (Explain that sometimes drawing will not be the most efficient way to solve the problem when the numbers get large.) Next, model the same problem using a number line. Start with 31 and go back 11 on the number line. Then, starting with that unknown number, add back to get to 42. Finally, model how to write the equations for each part of the problem. **We-Do (Guided Practice):** Pose the word-problem, *"There were 9 toys in a box. Nan took 5 toys out of the box. Then she put 12 toys in the box. How many toys are in the box now?"* Have partner work together with this problem. Partner A & B will read the problem together. Partner A will read and decide what the first part of the problem is asking and both partners will write it on their whiteboard and solve the problem. Next, Partner B will explain what the second part of the problem is asking. Partner B will tell Partner A the equation for the second part and both partners will write the answer to the problem. Encourage students to use pictures or graphic organizers to help solve the problem. Continue to give students different problems based on the need of the classroom. **Check For Understanding:** The teacher will observe students recording their representations and equations 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 two-step addition and subtraction sheet with similar problems independently. **Discussion Circle:** Pose the question; "There were 15 fish in the pond. 6 fish swam away. Then, three more fish swam over to the group. How many fish are in the group now?" Give the students different equations and ask the students which one of the equations they would use to help solve the problem. (e.g., 15 + 6 = _____, 15 – 6 = _____, 9 – 3 = _____, 9 + 3 = _____)	Students will work with partners to break down the different parts of the two-step word problem to ensure that all parts are covered. Students will work with partners to write equations, solve problems, and provide evidence for their answers. Students will work problems out on their whiteboards showing a visual representation and an equation for each part of the two-step word problems. Students will answer questions that the teacher poses during check for understanding. Students will complete an addition and subtraction two-step problem worksheet independently. Students will think, pair, share to discuss question and then respond to the question posed by the teacher. Students will provide evidence and explanations for their choice in the problem.
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 **2.0A.A.1**. Students will demonstrate understanding by completing problems that include a word problem that includes one-step and two-step word problems using adding and subtracting with known and unknown numbers. Students will show high proficiency of the standard by writing equations, completing visual representations, solving the problem 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): (Student will receive 1 pt. for equation, 2 pt. for visual representation, 1 pt. for answer and 1 pts. for evidence.) 5 points total

Write an equation, give visual representation using number bonds and solve the problem. Cite your evidence. (ADDING TO/TAKING FROM PROBLEM)

At recess 30 children lined up to jump rope. 9 children joined them. 4 children left to get a drink of water. How many children were left in the line?

Answer: Equation 30+9-4=X Students will represent the first step of the problem by using a number bond to find the whole of 30 and 9 (39). They will then represent the second step using a number bond with 39 as the whole and 4 and 35 will be the parts. 35 is the correct answer. The students will write an explanation of how they solved the problem as their evidence.

Summative Assessment Item 2 (clearly identify answer key/scoring rubric, and acceptable score): (Student will receive 3 pts. for equations, 1 pt. for the correct answer, 1 pt. for visual representation, and 1 pts. for evidence.) 6 points total

Write an equation, give a visual representation and solve the problem. Cite your evidence. (PUTTING TOGETHER/TAKING FROM PROBLEM)

Barb has 14 stars. Grace has 15 stars. Sam has some stars. There are 45 stars all together. How many stars does Sam have?

Answer: Equation 14+15+X=45 Students will represent the problem using either a tape diagram or a bar model. The first step of the problem is 14+15=X. (X=29) The second step of the problem is 45-29= X. The correct answer is 16. The students will write an explanation of how they solved the problem as their evidence.

Summative Assessment Item 3 (clearly identify answer key/scoring rubric, and acceptable score): (Student will receive 1 pt. for equation, 1 pt. for visual representation, 1 pt. for answer and 1 pts. for evidence.) 4 points total

Write an equation, give a visual representation and solve the problem. Cite your evidence. (TAKING APART PROBLEM)

Sally and Amy put together a puzzle. When it was time to clean up, Sally took apart 25 pieces and Amy took apart 34 pieces. How many pieces were in the puzzle?

Answer X-25=34 Students will represent the problem using a number bond to find the missing part. The correct answer is 59. The students will write an explanation of how they solved the problem as their evidence.

Summative Assessment Item 4 (clearly identify answer key/scoring rubric, and acceptable score): (Student will receive 2 pt. for equation, 2 pt. for visual representation, 2 pt. for answer and 1 pts. for evidence.) 7 points total

Write an equation, give a visual representation, use a symbol for the unknown number and solve the problem. Cite your evidence. (COMPARING PROBLEM/TAKING FROM PROBLEM)

There are 24 more pieces of candy in the purple box than in the red box. The red box has 71 pieces of candy. How many pieces of candy are in the purple box? If they need 100 pieces of candy, how many more pieces of candy are needed?

Answer: Equation 71+24=X Students will represent the first step of the problem by using a number bond with X as the whole and 71 and 24 as the parts. The correct answer is 95. Equation 100-95=X Students will represent the second step of the problem by using a number bond with 100 as the whole and 95 and X as the parts. The correct answer is 5. The students will write an explanation of how they solved the problem as their evidence.

Scoring Guide		
Highly Proficient	22/22	100%
Proficient	18/22	80%
Minimally Proficient	14/22	60%
Not Proficient	<14/22	<60%