Grade Level	Content Area	Course Title *(For 9-12 Samples Only)*	Unit Title
1st grade	Math		Words problems with addition and subtraction

Length of Unit	Time of Year Taught	Expected Prior Knowledge
5 days- 60	4th quarter	Operations and Algebraic thinking: **Add and subtract within 20.** 5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). **Work with addition and subtraction equations.** 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* 8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 +? = 11, 5 = – 3, 6 + 6 = .*

Unit Description: Students will learn how to represent and solve word problems using addition and subtraction with unknowns in all positions. The unit begins with teacher modeling and independent practice. The students will also write problems to solve with a partner. Students will complete a worksheet to practice for the assessment. The quiz at the end of the unit will demonstrate mastery of the standard.

Standards: <u>See instructions on page 15.</u>	1.2 Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction. 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.2
Summative Assessment *In addition to the description, include a copy of the summative assessment in the application package.*	The students will take a six question quiz to demonstrate mastery of the standard. They will write the equation and the correct answer.
Scoring for Summative Assessment *In addition to the description, include a copy of the answer key and scoring rubric (if applicable) for the summative assessment in the application package.*	The students will score a 9 out of 12 which is at least a 70% on a six question quiz to demonstrate mastery of the content. Each question is worth two points. The students will get one point for the correct equation and one point for the correct answer.
Materials/Resources Needed *Include all items for the entire unit.*	Whiteboards, math journal, worksheet, assessment, gold fish crackers

	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Instruction and Timeline	Objective: Students will solve an addition word problem using objects and unknowns in all positions. Anticipatory Set: Tell several addition and subtraction word problems allowing students to act out the story using goldfish crackers. Instruction/Modeling: On overhead show equation blocks. Use manipulatives and cup labeled X to model and then solve the equation using objects or drawing picture Check for understanding: Read a new addition story problem and ask students where to place the X cup (position 1,2 or 3) Guided practice: Read it out loud. Model thinking out loud, circling	Objective: Students will solve a subtraction word problem using objects and unknowns in all positions. Anticipatory Set: Give students an addition word problem verbally. As a class, act out the problem using a large paper 'x' Instruction/Modeling: Remind students of subtraction key words Explain that students should listen carefully to the story. On overhead show equation blocks. Use manipulatives and cup labeled X to model and Then solve the equation using objects or drawing picture Check for understanding: Read a new story problem and ask students where to place the X cup (position	Objective: Students will use addition and subtraction to solve word problems using drawings with unknowns in all positions. Anticipatory Set: Review how key words determine whether you add or subtract. Instruction/modeling: Teacher will read a story problem. Teacher will ask questions helping students determine whether they add or subtract. (Remember key words) Draw story problem out on overhead to model problem solving. Ask questions about next steps. Active Participation: Where does the cup (x)	Objective: Students will use addition and subtraction to solve equations with drawings. Anticipatory Set: Give students a real life scenario and have them draw the equation on their white boards. Review answers as a class. Instruction: Teacher will display On over head: ___+____ = X. X + ____= _____ ____+ X=_____ Model filling in the blanks with information from the problems. Model addition problems, using drawings. Teacher will model: ___-____ = X. X - ____= _____ ____- X=_____ Model filling in the blanks with information from the problems. Model	Objective: Students will demonstrate mastery of solving word problems using addition and subtractions with unknowns in all positions. Anticipatory set: Give students two problems and ask questions to review process. Instruction: Give students assessment Closure: Make up a real life story using 'x' in any position on their white boards.

	key vocabulary. Model writing an equation to match the story. Model using objects to find the answer. Use cup to represent the answer. Students use manipulatives to solve the problem. Repeat process with X in all positions. Teacher should observe students working. Independent Practice: Display new story problem on overhead. Read it out loud. Students should solve the problem using manipulatives, Use cup to represent the answer. Repeat the process with a different story with X in each position. Closure: Write an addition story problem on your white board with an answer.	1,2 or 3) Guided practice: Read it out loud. Model thinking out loud, circling key vocabulary. Model writing a subtraction equation to match the story. Model using objects to find the answer. Use cup to represent the answer. Active Participation: Students use manipulatives to solve the problem. Repeat process with X in all positions. Teacher should observe students working. Independent Practice: Display subtraction story problem on overhead. Read it out loud. Students should solve the problem using manipulatives, Using cup to represent the answer. Repeat the process with a different story with X in each position. Closure: Write a subtraction story problem on your white board with an answer.	go in this equation? Guided Practice: Give students another problem. Have them draw the equation out on their whiteboards. As a class, solve the problem. Independent Practice: Students write a story problem addition and subtraction and x in every position. Have students work with a partner to solve their partner's problems. Teacher conferences with groups as needed. Review answers as a class. Closure: Each groups presents one of their problems and tells how they determined how to solve.	subtraction problems, using drawings. Guided Practice: Teacher gives story problem to the class. Students create equations on their white boards to match the story. Students use drawings to solve the equations. Independent Practice: Students work on worksheets with story problems and blank equations. Teacher will read each story problem to the students. Students will write the equations and solve with pictures. Closure: Students write an addition or subtraction equation on their white boards.	

	Lesson 1	**Lesson 2**	**Lesson 3**	**Lesson 4**	**Lesson 5**

Student Activities and Timeline	Students act out addition and subtraction problems using goldfish crackers. After being read a story problem, students tell where to place the X cup (position 1,2 or 3) Students use manipulatives to solve a problem. Students should solve problems with x in every position using manipulatives, Use cup to represent the answer. Students write an addition story problem on your white board with an answer.	Students act out a problem using a large paper ‘x’ Students listen to a story. Students tell where to place the X cup (position 1,2 or 3) Students use manipulatives to solve the problem. Students should solve the subtraction problem using manipulatives, Using cup to represent the answer. Students repeat the process with a different story with X in each position. Students write a subtraction story problem on your white board with an answer.	Students answer questions to solve a problem step by step. Students answer: where does the cup (x) go in this equation? Students draw the equation out on their whiteboards. Students write a story problem addition and subtraction and x in every position. Students work with a partner to solve their partner’s problems. Student groups present one of their problems and tell how they determined how to solve.	Students draw the real life scenario equation on their white boards. Students create equations on their white boards to match the story. Students use drawings to solve the equations. Students work on worksheets with story problems and blank equations. Students will write the equations and solve with pictures. Students write an addition or subtraction equation on their white boards.	Students complete problem and answer questions to review process. Students complete assessment. Students make up a real life story using ‘x’ in any position on their white boards.

Name: _____
Date: _____

Worksheet

1. Derrick worked at the snack bar during the soccer game. At halftime, he sold 4 bags of potato chips. After the game, he sold another bag of potato chips. How many bags of potato chips did he sell in all?

2. There are 10 shirts in Tamara's dresser. There are 2 short-sleeved shirts in her dresser. How many long sleeved shirts are there?

3. The sisters went shopping and bought 13 cat toys. They bought some toy mice and 5 plastic balls. How many plastic balls did they buy?

4. Lynn and Daisy did a treasure hunt at camp. They found a total of 8 prizes. If Lynn found 2 prizes, how many prizes did Daisy find?

5. Leo lost 2 tennis balls at the park. He has 12 now. How many did he start with?

6. Isabella and Robert started with 16 fish. They have 10 now. How many did they throw back?

Worksheet
Answer Key

1. Derrick worked at the snack bar during the soccer game. At halftime, he sold 4 bags of potato chips. After the game, he sold another bag of potato chips. How many bags of potato chips did he sell in all?
   $4 + 1 = x$
   $4+1= 5$
2. There are 10 shirts in Tamara's dresser. There are 2 short-sleeved shirts in her dresser. How many long sleeved shirts are there?
   $2 + x = 10$
   $8 + 2 = 10$
3. The sisters went shopping and bought 13 cat toys. They bought some toy mice and 5 plastic balls. How many plastic balls did they buy?
   $X +5 =13$
   $8 + 5 + 13$
4. Lynn and Daisy did a treasure hunt at camp. They found a total of 8 prizes. If Lynn found 2 prizes, how many prizes did Daisy find?
   $8-2 =x$
   $8-2 =6$
5. Leo lost 2 tennis balls at the park. He has 12 now. How many did he start with?
   $x-2=12$
   $14-2=12$

6. Isabella and Robert started with 16 fish. They have 10 now. How many did they throw back?
   $16-x= 10$
   $16-6= 10$

Name: _____
Date: _____

Quiz

1. The dog walker had 11 large dogs to walk and 4 small dogs to walk. How many dogs did she walk in all?

2. Jun went fishing and caught 11 trout. Under a big tree she caught 4 trout. Further down the river, how many did she catch?

3. Zachary and Darla each spent yesterday counting votes in an election in a computer lab. There were a total of 12 votes. Zachary counted some votes, and Darla counted 2 votes. How many votes did Zachary count?

4. Tasha made 14 tissue paper flowers, but then 2 got ruined in the rain. How many tissue paper flowers does she have now?

5. Meredith lost 3 seeds. She ended up with 15. How many did she begin with?

6. Five birds are sitting on a wire. There were 15 birds sitting there earlier. How many flew away?

Name: _____
Date: _____

Quiz
Answer Key

7. The dog walker had 11 large dogs to walk and 4 small dogs to walk. How many dogs did she walk in all?
   11+4= x
   11+4=15

1. Jun went fishing and caught 11 trout. Under a big tree she caught 4 trout. Further down the river, how many did she catch?
   4+x=11
   4+7=11

2. Zachary and Darla each spent yesterday counting votes in an election in a computer lab. There were a total of 12 votes. Zachary counted some votes, and Darla counted 2 votes. How many votes did Zachary count?
   X+2= 12
   10+2= 12

3. Tasha made 14 tissue paper flowers, but then 2 got ruined in the rain. How many tissue paper flowers does she have now?
   14-2=x
   14-2=12

4. Meredith lost 3 seeds. She ended up with 15. How many did she begin with?
   x-3= 15
   18-3=15

5. Five birds are sitting on a wire. There were 15 birds sitting there earlier. How many flew away?
   15-x=5.
   15-10=5

Score: _____/12

Each correct equation is worth one point and each correct answer is worth one point. Nine points out of 12 is the minimum needed for mastery.

Number correct:	Percent:	
0-5	0% -49%	Falls Far Below
6-8	50%-69%	Approaches
9-12	70%-100%	Meets Mastery Level