

## EXEMPLAR Units & Lessons MATHEMATICS

**Kindergarten** 



MS Exemplar Unit • Mathematics

Kindergarten • Edition 1

#### Lesson 9: Hungry, Hungry Kindergarteners

Focus Standard(s): K.OA.2

Additional Standard(s): K.OA.1 (embedded); K.OA.3 and K.OA.4 (prerequisites), K.CC.4a, K.CC.4b

Standards for Mathematical Practice: SMP.4, SMP.5, SMP.6

#### **Resources and Materials:**

- Counters
- Crayons
- Erasable Markers
- Erasers
- Linking Cubes
- Handout 1.2: Circle Map
- Handout 1.3: 5-Frame
- Handout 3.2: Large 10-Frame
- Handout 4.2: Word Problem Diagram
- Handout 5.1: 4-Part Foldable
- Handout 8.1: Pair of Hands
- Handout 9.1 Summative Assessment
- Handout 9.2: Performance Task & Rubric
- Video <u>Ten Little Monkeys Jumping on the Bed</u>

#### Learning Center Materials:

- Art Paper
- Construction Paper Circles
- Fruit
- Glue
- Markers
- Music
- Paint

- Paint Brushes
- Story Props for The Very Hungry Caterpillar
- Student Journals
- Vegetables

#### Lesson Target(s):

- Students will join two different quantities up to 10, using one-to-one correspondence to show understanding of putting together and adding to.
- Students will demonstrate knowledge of adding and subtracting word problems using acquired strategies.

#### Guiding Question(s):

- How do adding and subtracting differ?
- What are some key words that help you determine whether you are adding or subtracting?

#### Vocabulary

Academic Vocabulary:	Instructional Strategies for Academic Vocabulary:
<ul> <li>add</li> <li>addition</li> <li>and</li> <li>decrease</li> <li>deduct</li> <li>difference</li> <li>equal</li> <li>how many more</li> <li>items</li> <li>join</li> <li>left</li> <li>less than</li> <li>minus</li> <li>more</li> </ul>	<ul> <li>Introduce words with student-friendly definitions and pictures</li> <li>Model how to use the words in discussion</li> <li>Discuss the meaning of word in a mathematical context</li> <li>Create pictures/symbols to represent words</li> <li>Write/discuss using the words</li> <li>Act out the words or attach movements to the words</li> </ul>

<ul> <li>plus</li> <li>put together</li> <li>remain</li> <li>subtract</li> <li>subtraction</li> <li>sum</li> <li>take away</li> <li>total</li> </ul>				
Symbol	Symbol         Type of Text and Interpretation of Symbol			
Instructional support and/or extension suggestions for students who are EL, have disabilities, or perform well below the grade level and/or for students who perform well above grade level				
$\checkmark$	<ul> <li>✓ Assessment (Pre-assessment, Formative, Self, or Summative)</li> </ul>			
Instructional Plan				
Understanding Lesson Purpose and Student Outcomes: Students will use acquired skills to solve addition and subtraction word problems within 10. Anticipatory Set/Introduction to the Lesson (Whole Group):				
Have students share their homework illustrations with the class. Ask them to provide a justification for the illustration they chose to draw (SMP.6).				
<ul> <li>Note: Teacher Guidance</li> <li>Struggling students are placed near the presenter or assistant, who occasionally redirects the students' attention during whole group and small group activities.</li> <li>Whole Group should last about 15, 20 minutes maximum. If this time frame is too long for students, the Whole Group</li> </ul>				

2. Whole Group should last about 15-20 minutes maximum. If this time frame is too long for students, the Whole Group activities may be divided into two sessions. Small Group should last about 15 minutes. Using the pre-assessment results, the

teacher will design the formation of small groups to reflect student capability and to drive the instruction throughout every lesson.

3. **Movement**: The teacher will conduct a movement/physical activity with the students between the anticipatory set and activity 1 to make sure students are not sitting still for too long.

For students who are EL, have disabilities, or perform well below grade level:

- Read word problems to students who cannot read.
- Allow students to use additional manipulatives or manipulatives of their choice.
- Give students extra time as needed to complete their work

Extensions for students with high interest or working above grade level:

• Have students compose additional facts with accompanying 10-frames to represent the facts.

<u>Students will complete Activities 1 and 2 in a small group of 2 to 4 children or individually. Activities will take more than one day</u> to complete. All students not being assessed will go to learning centers of their choice.

Activity 1 (Individual or small group): Assessing Comprehension of Addition and Subtraction Word Problems

✓ Distribute Handout 9.1: Summative Assessment. Instruct students to use tools and manipulatives they know to solve addition and subtraction problems (SMP.5).

Activity 2 (Individual or small group): Performance Task Read and explain the following performance task:

You have been chosen to co-author a children's picture book. Each of you must create one page that pictorially represents either an addition or subtraction word problem within 10. The title of the book is The Very Hungry Kindergarten Student. Your picture should correctly represent the word problem with accuracy and precision. Also, be creative and have FUN! (SMP.4, 5, & 6) Explain to the students how you will grade their work going over **Handout 9.2: Performance Task Rubric.** Give students examples of what the best and the worst work might look like. Encourage students to do their best and monitor them as they work asking questions and prompting them to complete the task. Answer any questions students may have.

Distribute paper, crayons, and markers. Make available all the handouts and manipulatives that were used in the unit. Encourage students to use the manipulatives and include them in their drawings.

Work with students to write their math story problem about hungry kindergarten students. If necessary, write students' stories as they dictate to you.

#### **Learning Centers**

**Note:** Learning Centers are designed to be developmentally appropriate for all students. The teacher and assistant move about to observe and offer support, as needed. Learning centers will operate in conjunction with small group.

- ✓ Dramatic Play Center/Music/Listening- Students will make props for the story of the Very Hungry Caterpillar and act out the story. Students will listen to music and pretend to be a butterfly or some other type of insect.
- ✓ Math Center- Cut out 5 circles using construction paper of various colors. Count by 5's to 25 writing one number on each circle and then connecting the circles with glue. Students will also count by 10's to 50 and 20's to 100. Students will add an extra circle to make a head for each set of circles to make a caterpillar (SMP.6).
- ✓ **Computer** Students will play math and reading games. The teacher will choose the website(s).
- Reading Center/Writing Center- Students will read and picture read fiction and non-fiction books. Students will write and illustrate their own stories about addition, subtraction, foods, insects, animals, etc. Students will reference the word wall, available books, charts and pictures in the classroom for assistance with words.
- Science Center- Provide a variety of fruits and vegetable. Throughout the unit, the students will observe the texture of the fruits and the vegetables. Decide which are alike and which are different and record their observations in their journal. Students will also smell the fruits and vegetables. Students will draw the fruit and or vegetable he or she likes best and write a sentence to explain why he or she likes it.
- ✓ Art Center Provide a variety of art materials. Students will paint a picture of their choice or create their own work.

#### **Reflection and Closing:**

Discuss occupations that require you to be able to add and subtract.	Reflect on student understanding of the performance task.				
Homework					
No Homework.					

Handout 9.1: Summative Assessment

	4+3=			
Work space:				
	8- 5=			
Work space:				
Roscoe had 10 crackers				
Roscoe gave James 4 crackers. How many crackers did Roscoe have left?				
Work space:				

The football players used 3 footballs in practice. They used 6 footballs	in the
game. What was the total number of footballs the football players used?	

Work space:

The very hungry caterpillar ate 4 strawberries Thursday. The caterpillar ate 5 oranges Friday. How many pieces of fruit did the caterpillar eat all together Thursday and Friday?

Draw a picture to represent the word problem.

You have been chosen to co-author a children's picture book. Each of you must create one page that pictorially represents either an addition or subtraction word problem within 10. The title of the book is *The Very Hungry Kindergarten Student*. Your picture should correctly represent the word problem with accuracy and precision. Also, be creative and have FUN!

Rubric for Performance Task					
Knowledge/Skills					
&					
<b>Related Standards</b>					
Addressed in the					
Unit	4	3	2	1	
ACCURACY	Student chooses	Student	Student	Student	
	the correct	chooses the	chooses one	chooses no	
	numbers in the	correct	correct number	correct	
	word problem	numbers in the	in the word	numbers in the	
	and accurately	word problem	problem and	word problem	
	and precisely	and vaguely	vaguely	and does not	
	represents the	represents the	represents the	represent the	
	word problem.	word problem.	word problem.	word problem.	
EFFORT	Student gave	Student	Student	Student did not	
	effort that was	completed the	completed the	complete	
	beyond the	project with	project but it	project.	
	requirement of	slightly above	slightly lacked		
	this project.	average effort,	effort.		
		but more could			
		have been			
		done.			

# For training or questions regarding this unit, please contact:

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