



MISSISSIPPI
EXEMPLAR
Units & Lessons
MATHEMATICS

Pre-Kindergarten

Grant funded by:



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MISSISSIPPI DEPARTMENT OF EDUCATION

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Lesson 4: I Want More!

Focus Standard(s): PK.OA.1, PK.OA.2

Additional Standard(s): PK.RL.1, PK.CC.2, PK.CC.3, PK.CC.4

Lesson Activity Materials:

- Crayons
- Cups
- Double-sided Counters
- Fruit Counters
- Music
- Paper plates cut in half
- String/yarn
- *The Very Hungry Caterpillar* by Eric Carle
- White board/Smartboard
- Handout 2.1: Food Cut Outs
- Handout 2.2 Five Frame
- Handout 4.1: Shake and Spill

Learning Center Materials:

- Black pipe cleaners
- Coffee filters
- Life Cycle of a Butterfly Chart
- Markers
- Paint brush, dropper, or sponge
- Play-Doh and baking trays/cookie sheets
- Popsicle Sticks and glue sticks
- Water

- *The Very Hungry Caterpillar* Animated Story:
<http://www.bing.com/videos/search?q=the+very+hungry+caterpillar&view=detail&mid=B1960DAECAE2A8B23271B1960DAECAE2A8B23271&FORM=VIRE>
- Handout 1.2: *The Very Hungry Caterpillar* Story Props

Lesson Target:

- Students will understand the relationship between numbers and the quantities that combine to make them.

Guiding Question(s):

- How can I show a number, using different combinations of the same objects?
- How can Five Frames help me add two parts together?

Vocabulary**Academic Vocabulary:**

- Add
- More
- Total

Note: Expose students to various ways to mathematically express these terms. For example, when discussing the word **add**, include phrases such as **putting together**, **altogether**, and **added to**.

Instructional Strategies for Academic Vocabulary:

- Introduce words with student-friendly definitions and pictures
- Model how to use the words in discussion
- Discuss the meaning of word in a mathematical context
- Create pictures/symbols to represent words
- Write/discuss using the words


Direct Instruction Text Vocabulary:

- Apple
- Caterpillar
- Cocoon
- Oranges
- Pear
- Plum
- Strawberry

Instructional Strategies for Direct Instruction Text Vocabulary:

- Introduce words with student-friendly definition and pictures
- Model how to use the words in discussion
- Write/discuss the meaning of word in multiple contexts
- Provide pictures/props to represent words

Note: Consider which of these words would fall into Tier 2 for your students when introducing vocabulary.

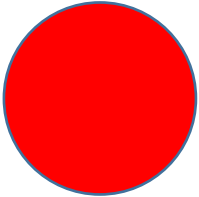
Symbol	Type of Text and Interpretation of Symbol
	Instructional support and/or extension suggestions for students who are EL, have disabilities, or perform well below the grade level and/or for students who perform well above grade level
✓	Assessment (Pre-assessment, Formative, Self, or Summative)

Instructional Plan

Understanding Lesson Purpose and Student Outcomes: Students will solve number combinations within 5, using a Five Frame. Students will use counters to create number combinations within 5 on the Five Frame.

Anticipatory Set/Introduction to the Lesson: “I Want More!” 5-Frame Dance

Note: Prior to lesson, create paper plate necklaces for each student. Necklaces are made of paper plate halves and string. Punch two holes at the top of the plate half and run string through to make a necklace. Write numbers 0-5 (one number on each necklace) on 1/2 of necklaces and draw 5-frames on the other half of necklaces that match the numbered plates. Ex: “1” would match with the frame shown below. Depending on the number of students in the class, you may have a number more than once. Make sure that there is a Five Frame match for every number.

			
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Give each student a necklace. Play an age appropriate song 20 seconds. Allow students to dance and find a partner that matches them. Exchange necklaces and dance again to find a new partner.

Note: (1) Struggling students are placed near the presenter or assistant, who occasionally redirects the students' attention during whole group and small group activities. (2) Whole Group should last between 15-20 minutes. If this time frame is too long for students, the Whole Group activities may be divided into two sessions. (3) Small Group should last approximately 15 minutes. Using the pre-assessment results, design the formation of small groups to reflect student capability and to drive the instruction throughout every lesson.

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

- Students may work in pairs, small groups, or individually with the teacher to complete the activity.
- Teacher may offer a necklace with the answer on the back to help students find their match.

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

- Students can use a ten frame for counting and write numerals to represent the number combinations.

Activity 1: Five Frame Flash (Teacher-led Small Group)

Tell students that we are continuing our math lessons from *The Very Hungry Caterpillar*. Reread the story with the children. Review the vocabulary from the story as you read. Give each student a Five Frame and counters.

Review using a 5-frame by reading the following addition problem:

T: The caterpillar ate 2 pears. The caterpillar ate 3 plums. How many pieces of fruit did the caterpillar eat?

Tell the students to count the pieces of fruit the caterpillar ate on the Five Frame making sure that the student touches each fruit piece as he/she counts.

Continue to review with the following problems:

T: The caterpillar ate 1 apple. The caterpillar ate 2 pears. How many pieces of fruit did the caterpillar eat?

T: The caterpillar ate 0 bananas. The caterpillar ate 5 oranges. How many pieces of fruit did the caterpillar eat?

T: The caterpillar ate 3 plums. The caterpillar ate 1 apple. How many pieces of fruit did the caterpillar eat?

T: The caterpillar ate 4 strawberries. The caterpillar ate 0 bananas. How many pieces of fruit did the caterpillar eat?

Activity 2: Shake and Spill (Teacher-led Small Group)

Pair students. Put 5 double-sided counters in cups for each pair.

Have one student shake and spill the counters onto the table. Place the counters in the Five Frame. Have both students count how many of each color is showing and record by drawing in the Five Frame on **Handout 4.1: Shake and Spill**. Allow the other student to shake and spill the counters, repeating the process.

Learning Centers

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

- ✓ **Writing Center** – Ask students to write and/or draw about their favorite foods. Have students reference the Word Wall, available books, charts and pictures in the classroom.
- ✓ **Dramatic Play Center** - Distribute **Handout 1.2: The Very Hungry Caterpillar Story Props** for students to make props for *The Very Hungry Caterpillar* and act out the story.
- ✓ **Math Center** - Using Play-Doh, have students make the items the caterpillar ate each day, count them and make the number for the amount.
- ✓ **Computer/Listening Center** – Provide technology for students to listen to *The Very Hungry Caterpillar* on CD, DVD, or online with [The Very Hungry Caterpillar Animated Story](#). If listening to the story on CD, the student will use the text to follow with the reader.
- ✓ **Reading Center** – Allow students to select fiction and non-fiction books about butterflies and other insects to read and view.
- ✓ **Science Center** - Display a chart of the life cycle of a butterfly. Have students draw or create their own version of the butterfly life cycle using various art materials and writing utensils.
- ✓ **Art Center** – Have students make coffee filter butterflies. First, students color a coffee filter with washable markers creating beautiful patterns of colors. Then, students will wet the coffee filters using a wet paint brush, sponge, or medicine dropper and hang to dry. After the filters are dry, fold them like an accordion. Twist a pipe cleaner around the middle of the filter to make a caterpillar body and twist the pipe cleaner around clockwise at least twice to make antennae.

Reflection and Closing:

Review combinations of numbers and objects using a Five Frame on the board. Have students share explanations of combining amounts to make 5 using the Shake and Spill activity.

Reflect on how well the students answered the following essential questions by examining evidence of student learning.

- How can I show a number, using different combinations of the same objects?
- How can Five Frames help me add two parts together?

Homework

Homework is not developmentally appropriate for pre-kindergarten.

Handout 4.1: Shake and Spill

Shake and Spill

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For training or questions regarding this unit,
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