Match the Mama Eagle

Grade Level Range: k-2nd (specifically 1st)
Content Areas Addressed: Mathematics
Group Size: whole class, or small groups (4-7) for center activity
Duration: 30-60 minutes
Key Vocabulary: eagle, eaglet, hatch, nest, match, unknown number, number sentence, one and two-digit numbers
Materials Needed: addition/subtraction matching worksheets, pencils, white board or smart board or projector for demonstrating/modeling activity

Lesson Objective

As an outcome from this lesson, students will:
1. Classify bald eagle nests based on how many eggs they contain and to which mama eagle it belongs
2. Apply their knowledge of single digit addition and subtraction to find the unknown number in unfinished number sentences

Methods

Direct instruction: introduction to lesson objective and clearly defined and modeled steps of activity, students participate in guided instruction when they complete their worksheets while teacher monitors comprehension, class discussion and review of steps and content learned
Modeling
Guided instruction

Procedures

1. Introduction to lesson: "This week we have been learning about bald eagles. Who can tell me one thing they have learned about eagles? What do a mama eagle and a daddy eagle build to lay their eggs and have their eaglets? That's right, the eagles build nests to lay their eggs. Does anyone remember watching the eagles with the Berry eagle cam? Where were the eagles? That's right, they were in their nests with their eggs and little eaglets. Mama eagles stay in their nests to take care of the eggs until they hatch as eaglets, but sometimes they get separated or can't find their way back to their nests. Today we are going to help six mama eagles who have lost their nests find their babies again using addition and subtraction. We are going to classify the mama eagles by how many eggs they know they have in their nest and match them with the nest containing the number sentence that equals that same number of eggs. Who can write an example of an addition number sentence on the board for me? Correct, an addition number sentence has two numbers combined or added together with a plus sign and the number that they add together to make is on the other side of the equal sign. A number sentence reads 'This number plus this second number equals this final number.' You are going to find the unknown number in the number sentence through addition or subtraction."

2. Introduction to lesson and activity: "Let's work out an example together. Imagine you have 3 mama eagles. One knows her nest has 4 eggs, the second knows she has 5 eggs, and the third knows she has 7 eggs. The nests you have to choose from have the number sentences 3+2, 1+3, and 2+5. First we solve the number sentences. Which number sentence is equal to 4? How about 5 and 7? Are these the nests that belong to these mama eagles? Good job. Let's work out a different kind of example together. Now each Mama knows which nest is hers and how many eggs she should have but some of her eggs are gone. We must figure out how many more eggs each mama needs."

3. Activity: "Now you guys are going to complete three problems using single digit addition and three problems using single digit subtraction on your own to help these mama eagles."

4. Conclusion: Lead concluding discussion and review over the lesson content. "You guys did a really good job adding and subtracting in order to help those mama eagles. Who can remind me how to write a number sentence? How do you add single digit numbers? How can you use your knowledge on addition to help you know how to subtract single digit numbers?"

Evaluation Alternatives

Assess students based on their performance on the worksheet and their answers to class discussion questions. Use a rubric that includes the section titles participation in discussion, understanding and correctness of single digit addition, and understanding and correctness of single digit subtraction. Students can receive a total of 12 points, 4 points for each section. Each section can earn 1-4 points based on extent of student interaction and understanding.

Background

• Teachers must have a basic knowledge about eagles and nests as well as how to lead unknown number addition and subtraction

• Students must have basic addition knowledge on how to add single digit numbers

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sentence math problems

• Students must know how to recognize numeral numbers and match them to the same number represented by physical objects (3 is equal to a picture of 3 eggs)

Students must know how to read and understand how to answer word and number

Resources

• Berry eagle cam, http://www.berry.edu/eaglecam/

• Common core mathematics standards, https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Grade-Level-Overview.pdf

• Eagle and eagle nest pictures,
  o http://www.jimcoda.com/index.php#mi=2&pt=1&pi=10000&s=3&p=0&a=0&at=0
  o http://fineartamerica.com/featured/perched-bald-eagle-natural-selection-david-ponton.html
  o http://fineartamerica.com/featured/virginia-bald-eagle-lara-ellis.html

- http://lawrenceperegrines.com/2012/01/
- http://www.ct.gov/DEEP/cwp/view.asp?a=2723&q=325972&deepNav_GID=1655
- http://xdesktopwallpapers.com/images/birds/
- http://eaglesandnature.blogspot.com/2014/05/berry-college-eaglet-day-82-nest-cam.html

Standards Addressed (Mathematics)
CCGPS.1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Math worksheet on next page/attached.