



NCEA Math Lesson Plan

Grade: 1

Subject: Mathematics

Domain: Operations and Algebraic Thinking
Standard Number(s) and Description: 1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.
Vocabulary to be Highlighted: Unknown, addend, part-part, sum, joining
Mathematical Practices (#): 1. Make sense of problems and persevere in solving them 6. Attend to precision
Essential Question: How can you find the unknown number in an addition equation?
Materials/Tools (include technology): Counters Large paper for graph Smart Board The Parable of the Lost Sheep (your choice) The Lost Sheep Independent : http://exchange.smarttech.com/details.html?id=05ff698e-b465-4b38-9a07-d81f68286a04 The Lost Sheep Guided Practice: http://exchange.smarttech.com/details.html?id=9478d6b7-2d2a-4f86-87fb-e32377759a11 The Lost Sheep Modeling: http://exchange.smarttech.com/details.html?id=05ff698e-b465-4b38-9a07-d81f68286a04 Graphing template (optional)
Connections to Other Math Domains: 1.MD.4 Represent and interpret data
Connections to Other Subject Areas: Religion
Catholic Identity Component: The Parable of the Lost Sheep
Resources (attachment): 4QAL06 The Lost Sheep on www.youtube.com (type 4QALO6 in search bar) Lost Sheep Graphing template

Activities/Timeline:

Opening: The Parable of the Lost Sheep (choose your own version)

There is a great YouTube version. Type in 4QAL06 The Lost Sheep on www.youtube.com

Direct Instruction: Introduce the vocabulary words: addend, unknown, equation. Use example of missing sheep to introduce the vocabulary word, “unknown.” The missing sheep was the “unknown.” Show the addition problem from the story, $99 + \underline{\quad} = 100$. What is the unknown number?

Model: Before passing out materials, model how to write an unknown addition equation using the Smart Board “Model Unknown” page. Make sure to practice having the unknown be the first addend and the second addend. Model using the strategy “counting on.”

Guided Practice: Pass out, “The Lost Sheep Booklet” and counters of your choice. When printing, print in “large” size to have two slides per page to make a booklet. As a group work through each page to determine the unknown. Teacher or student can pick the sum and the given addend. Save the last page for closure.

Independent Practice: Print off “The Lost Sheep: Independent Practice.” All six slides should fit on one page if you print in “small” size. Students will complete the practice independently without counters.

Regroup: Using a large piece of paper, create a graph using the information from the guided practice booklet to show how many sheep were lost on each day of the week. Do this as a group. We would suggest a bar graph or pictograph. Here are some questions to guide your discussion about the graph. Use Excel attachment to incorporate more technology if you wish.

Which day did he lose the most?

Which day did he lose the least?

How many more did he lose on ___ day than ___ day?

How many fewer did he lose on ___ day than ___ day?

Closure: Complete the last page of the guided practice booklet to let the students choose their own unknown addend equation and justify their answer independently. Have some students share their equation and how they justified their answer.

Formative Assessment (what to look for, how/when to look):

1. Students’ understanding of problem solving when solving for an unknown.
2. Students’ demonstration of understanding key vocabulary while completing booklet activities. This is an introduction lesson, and some students may need some help.

Summative Assessment:

Use the last page from the booklet to assess students’ understanding. Students should be able to create an unknown addition equation and justify their answer using the strategy “counting on.”