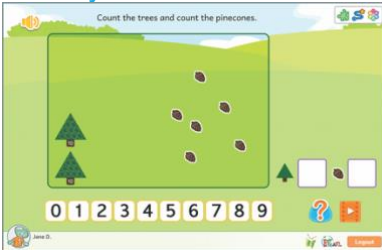


PLACE VALUE, STEP 4

Lesson Plan: Number Concept, Place Value, Step 4

Activity Screen Shot



Theme Host: Chuck



Animal Friend: Samoyed



OVERVIEW

The focus of this step is on helping students to recognize that when counting objects, with numbers between 10 and 29 the first digit represents the number of “tens of objects” and the second digit represents the number of “ones of objects”.

PRINCIPAL LEARNING GOAL(S)

- Reinforce students’ awareness of the relationship between counting “tens” and counting “ones” and an abstract numerical representation of two digit numbers
- Reinforce students’ awareness that in a two digit number the left digit represents the number of “tens” and the right digit represents the number of “ones”

PREREQUISITE KNOWLEDGE AND SKILLS

- Students should already be aware that a two digit number consists of the number of “tens” and the number of “ones” in a count of objects
- Students should have seen written numbers between 0 and 29 used to represent a number of objects in a set

POTENTIAL DIFFICULTIES

- Some students may not realize that if there are no trees, they must drag and drop a “0” into the “trees” number box because although this is mathematically correct as a count of trees, we do not usually write a single digit count with a 0 in the tens place. The teacher can show such an example, and call the students’ attention to the fact that when the answer is correct, the number that is subsequently shown above the number boxes no longer has a 0 as first digit.

WARM UP ~ 3-5 MINUTES

Display images with a field that holds a combination of apple trees and individual apples (see Appendix 1). Say that each apple tree corresponds to ten apples. Then ask students to hold up fingers on their left hands to indicate the number of “tens” of apples, followed by holding up fingers on their right hands to indicate the number of “ones” or single apples. Finally, ask students to say what number their two hands of raised fingers together represent.

MAIN ACTIVITY ~ 20 MINUTES

Students see a field of pine trees and pinecones and asked to drag and drop numbers to indicate the number of trees and the number of individual pinecones. The software then shows the symbolic representation of the total count of pinecones as a two-digit number.

CONSOLIDATION ~15 MINUTES

To help students consolidate their new knowledge and make connections to prior learning, allow time for subsequent discussion. The questions below raise important issues:

- 1) *After you finished and clicked OK, what did the software do if your answer was correct?*
The point of this question is to draw students' attention to how the count of trees and the count of pinecones are merged to become the one or two-digit number representing the total count. In particular, whenever the count of trees is 0, how the 0 does not appear in the 10's place but instead a one-digit number is shown.

APPENDIX 1

