## Place Value, Step 7

## Lesson Plan: Number Concept, Place Value, Step 7

Activity Screen Shot


## Theme Host: Chuck



## Overview

Students practice decomposition of numbers between 6-10.

## Principal Learning Goal(s)

- Students become fluent in such decompositions because it will help them when adding/subtracting with two-digit numbers in Lessons 8 and 9


## Prerequisite Knowledge and Skills

- Practiced decomposition of single digit numbers
- Played the card game that is often called "Concentration" or "Memory"


## Resources Needed

- Images that illustrate the difference between the usual "matched pairs" and "decomposition pairs" (see Appendix 1)


## Potential Difficulties

- Some students may initially have difficulty in adapting to the change from finding matching pairs in Concentration to finding pairs that add up to the given number. The Warm Up below should help.


## WARM UP ~ 3-5 MINUTES

The game that students are about to play is a variation on the classic Concentration Game. Instead of matching pairs of cards, in this game students must match pairs that add to a requested total. Appendix 1 contains images that illustrate this difference. You can project images from it to explain the new game. The first two pages of Appendix 1 contains some images that are matching pairs, some images that give a correct total and at least one image that is neither a matching pair nor a correct total. Save the third page for Consolidation.

## Main Activity <br> ~ 20 MINUTES

Success in adding (subtracting) multiple digit numbers depends upon having fluency in composition/decomposition of numbers between 6 and 10. This activity provides students with the practice needed to acquire that fluency that is needed in the following two activities.

## 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) Sometimes a matching pair gives us the correct total, and sometimes there is no matching pair that gives us the correct total. Has anyone noticed this? Is there a rule that tells us when there is and when there isn't a matching pair that gives us the correct total?
a) The third page of Appendix 1 has images that are both a matching pair and has a correct total $(3+3=6,4+4=8)$ and images that are matching pairs but not the correct total, $(6+6 \neq 8,5+5 \neq 7,2+2 \neq 6)$. Use these examples to stimulate the discussion. If necessary, you may also wish to write out the entire decomposition table for 7, i.e., 0+7, $1+6, \ldots, 7+0$, on the board so that students see once again that there is no matching pair that totals to 7 . With discussion the students can realize that this is one way of seeing the difference between "even numbers" and "odd numbers".

Appendix 1


