Grade 1

Unit 3: Addition, Subtraction, and the Number System

TEAMBCPS
Office of Mathematics PreK-12

The PreK-12 Mathematics curriculum focuses on problem solving, communication, and critical thinking in order to provide a foundation where every student reaches their potential to become a globally competitive, mathematically literate citizen.

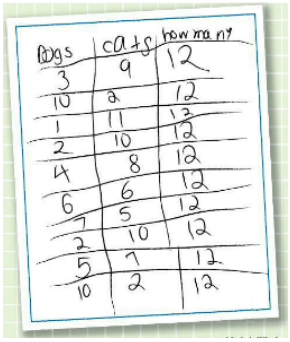
About this Unit

This unit builds on the work students did in unit 1 focusing on counting to higher numbers and revisiting familiar addition activities that encourage counting on. They are also introduced to the operation of subtraction. Students develop an understanding of addition and subtraction by counting forward and back, comparing larger quantities, composing and decomposing numbers into several parts, and counting sets of objects. Students find as many 2-addend combinations of a given number as possible and work on combining 2 small quantities accurately. Students subtract one small quantity from another and represent numbers using equivalent expressions. Students determine if equations involving addition and subtraction are true or false and develop strategies for solving addition and subtraction story problems.

Number Operations/Composition

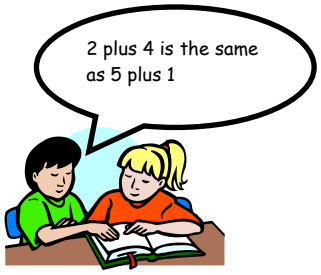
Students will make sense of and develop strategies to solve addition and subtraction problems. They will solve problems where only the total and one part are known and explore the relationship among combinations of numbers.

Kelly has 12 pets.
Some are cats and some are dogs.
How many of each could she have?
How many cats? How many dogs?
Find as many combinations as you can.



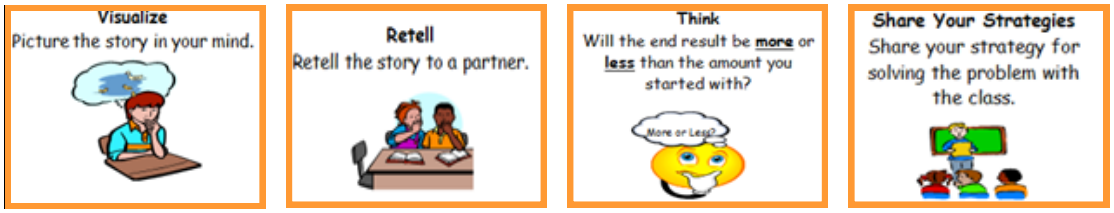
Students may use pictures, numbers, and words to find combinations where others may create their own system

Students will generate many ways to make a given number. Students learn to think about the equal sign as meaning "the same as."



Addition and Subtraction Strategies

In this unit, students continue to develop strategies for solving story problems. Students make sense of the action in a story, then visualize the sequence and results of events. Students were introduced to the Story Problem Routine in unit 1.

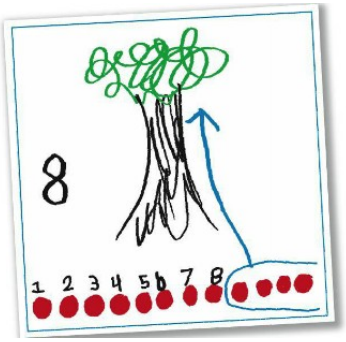


12 squirrels were on the ground. Then 4 of them ran up a tree. How many stayed on the ground?

Strategies that students may use to solve subtraction problems include:

Count All To Subtract

Students count out the total number, take the other amount away, and count how many are left.



Count Back To Subtract

Students count back from the total number by the amount of the smaller number.

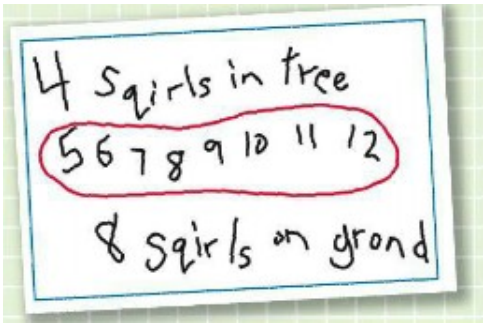
Example: 12—4 = ?

Counting back 4 from 12…

11…10…9…8

Count On To Subtract

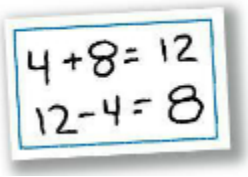
Students count on from the smaller number and keeping track of how many numbers are counted.



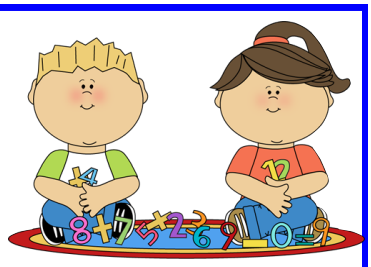
Use a Known Combination

Students use a known combination to help them solve.

I know that
4 + 8 = 12.
So, 12- 4 must be 8.



Helping Your Child at Home



- Build a certain number with two different colored Legos or colored blocks. Try to make different combinations of the same number.
- Give your child an addition or subtraction number sentence and ask them to make up a story problem to go with the number sentence.
- Count objects such as jellybeans in a bowl, pennies in a jar, cheerios in a baggie, etc.
- Share a snack such as Goldfish, Teddy Grahams, or M&Ms. Practice counting the total and taking a certain amount away or make combinations of the same total.
- Put different items into groups and talk about which group has more or less items using the terms greater than and less than.

Visit these Web sites for math activities.

- Johnnie's Math Page (http://jmathpage.com/JIMSNumbersubtraction.html)
Students can explore a variety of games focusing on subtraction at varying levels of difficulty.

- Investigations (http://investigations.terc.edu/library/Games_K1.cfm)
Students can explore a variety of games leveled for K-1 students focusing on numbers, addition and subtraction.

- Soft Schools (http://www.softschools.com/math/games)
Students can explore a variety of games at varying levels of difficulty focusing on addition and subtraction.

- Primary Games (http://www.primarygames.com/math/mathlines)