

THINKING WITH NUMBERS

Lesson Descriptions

Making Sense Of Counting

Counting is much more than just memorizing numbers in order. Each of the common errors that children make is addressed by these lessons. They are presented problems involving one-to-one matching and how it can be used to identify the number of a set and how one-to-one matching can be used to compare sets.

Children will learn how sets can be manipulated in ways that do not change the number and in ways that do change the number. Additionally, children will learn numbers that are 1 or 2 more and 1 or 2 less than a given number. Making sense of counting and matching and how they can be used to compare sets will provide an understanding that will help children be successful with numbers in school math.

Expected content outcomes include helping children learn:

- the number names and symbols,
- what number comes next,
- that the last number you count tells how many,
- that the order you count objects does not change the number,
- how to match one-to-one,
- that matching sets can help you compare,
- two sets can be compared indirectly by matching each to a third set,
- that moving objects does not change the number,
- that replacing objects does not change the number,
- that adding or removing objects does change the number,
- numbers that are 1 or 2 more, or 1 or 2 less,
- to accurately count a set of objects and tell how many, and
- to accurately tell if the number has changed by 1 or 2 after a set has been manipulated (objects have been moved or replaced; objects have been added or removed).

