THINKING WITH NUMBERS
Lesson Descriptions

Estimating

There are many everyday situations involving addition and subtraction where an exact answer is not needed. An estimate is often enough information to answer the question. For example, suppose you buy two items that cost 43¢ and 47¢ and you only have $1. Do you have enough money to pay for them? Since both 43 and 47 are less than 50, 43 + 47 is less than 50 + 50, in this case 100¢. So without taking the time to add 43¢ and 47¢, you know that $1 is enough to purchase both items. There are several different reasoning strategies that can be used to estimate. These lessons focus on using front-end numbers, using nice numbers, using bounds, and using rounding. Any of these might be the most efficient way to estimate depending on the context and the numbers involved.

Expected content outcomes include helping children learn:
- to recognize they know many different ways to estimate the solutions to addition and subtraction problems mentally,
- to become proficient in using many different reasoning strategies to estimate, and
- to become proficient in strategically choosing an efficient strategy for them to estimate mentally.