



2

Common Core State Standards

Standard:
2.NBT.9

Grade 2

**Made for teachers,
by teachers.**

**Worksheets and Activities
that teach every standard!**

Common Core State Standards

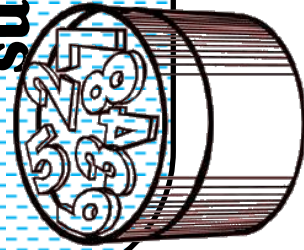
Explain why addition and subtraction strategies work, using place value and the properties of operations.
(Explanations may be supported by drawings or objects.)

Why does it work?

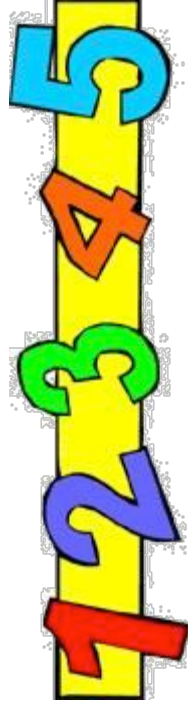
Directions:

Explain why addition and subtraction strategies work, using place value and the properties of operations.

Students will create their own addition and subtraction problems, draw a picture, and explain why the strategies work.



$$4 + 6 = 10$$



Addition Problem

Picture:

$$\begin{array}{c} + \\ \hline \\ \hline \end{array} = \begin{array}{c} \hline \\ \hline \end{array}$$

Why
does it
work?

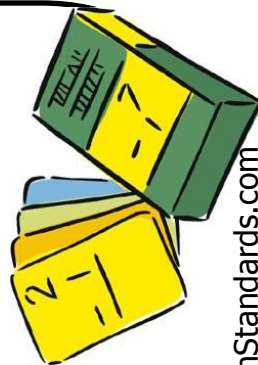
$$\begin{array}{l} 1+1=2 \\ 2+2=4 \\ 4+4=8 \end{array}$$

Subtraction Problem

Picture:



Why does it work?



Why it Works: Explaining Addition and Subtraction

Directions: Solve the following problems. Write, draw, or use equations and diagrams to explain what strategies you used to solve the problems. (Or, explain your thinking to your teacher.)

How does $4 + 5$ help you solve $5 + 4$?

Solve:

What strategy did you use to solve this equation?

$$5 + 3 + 7 = \underline{\hspace{2cm}}$$

Solve Mentally

What strategy did you use to solve this equation?

$$37 + 24 = \underline{\hspace{2cm}}$$

Solve Mentally

What strategy did you use to solve this equation?

$$64 - 28 = \underline{\hspace{2cm}}$$

Use the open number line to show the difference.

$$73 - 40 = \underline{\hspace{2cm}}$$



Use the open number line to show the sum.

$$56 + 37 = \underline{\hspace{2cm}}$$



Why it Works: Explaining Addition and Subtraction

Directions: Solve the following problems. Write, draw, or use equations and diagrams to explain what strategies you used to solve the problems. (Or, explain your thinking to your teacher.)

Show why this equation is true. $13 + 6 = 10 + 9$

Solve: What strategy did you use to solve this equation?

$$4 + 4 + 4 + 4 =$$

Solve Mentally What strategy did you use to solve this equation?

$$135 + 10 = \underline{\hspace{2cm}}$$

Solve Mentally What strategy did you use to solve this equation?

$$560 - 100 = \underline{\hspace{2cm}}$$

Use the open number line to show the difference.

$$85 - 67 = \underline{\hspace{2cm}}$$



Use the open number line to show the sum.

$$47 + 38 = \underline{\hspace{2cm}}$$



Name: _____

Date: _____

Directions: Solve the equations below. Explain, using words or pictures, the strategy you used to solve each problem.

Assessment

How does $7 + 2$ help you solve $2 + 7$?

Solve: $4 + 2 + 6 =$ _____

Solve: $43 + 24 =$ _____

Solve: $78 - 42 =$ _____

Solve: $335 + 125 =$ _____