



# MATH NEWS



Grade 2, Module 5, Topic A

2014-2015

## 2nd Grade Math

*Module 5: Addition and Subtraction within 1,000*

### Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 5 of Eureka Math (Engage New York) covers strategies for adding and subtracting within 1000. This newsletter will discuss Module 5, Topic A.

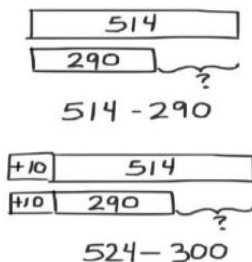
### Focus Area Topic A: *Strategies for Strategies for Adding and Subtracting Within 1,000*

#### Words to Know:

##### Associative property -

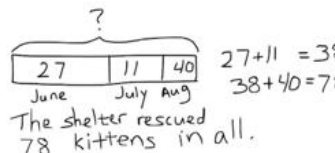
The order of adding numbers will not change the sum (answer).

##### Tape Diagram -



##### RDW (Read, Draw, Write) -

Read the problem, draw a picture and write an equation/complete sentence with the answer.



**Arrow Way** - Strategy used to solve addition or subtraction.

$$320 + 270$$
$$320 \xrightarrow{+200} 520 \xrightarrow{+70} 590$$

### Objectives of Topic A

- Relate 10 more, 10 less, 100 more, and 100 less to addition and subtraction of 10 and 100.
- Add and subtract multiples of 100 including counting on to subtraction.
- Add multiples of 100 and some tens within 1,000.
- Subtract multiples of 100 and some tens within 1,000.
- Use the associative property to make a hundred in one addend.
- Use the associative property to subtract from three-digit numbers and verify solutions with addition.
- Share and critique solution strategies for varied addition and subtraction problems within 1,000.

## Focus Area- Topic A

*Addition and Subtraction within 1,000.*

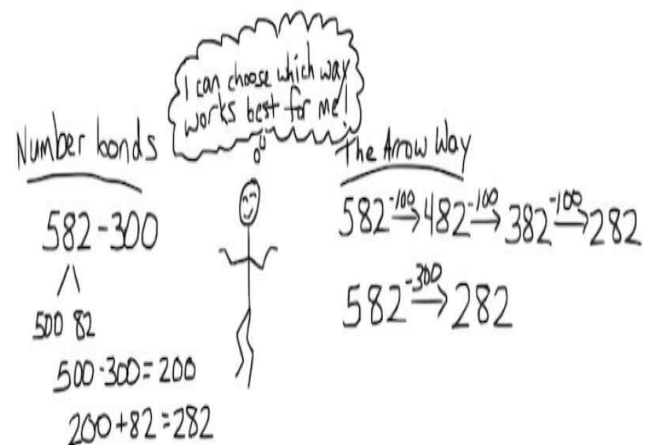
Students practice the simplifying strategies they learned in Module 4, but with number up to 1,000. They will be asked to consider which strategy is most efficient with each problem they encounter.

Students recognize that they must still add and subtract like units, and that the digit in the hundreds place changes when adding and subtracting 100. Students see numbers in terms of place value units: 290 - 100 is 2 hundreds 9 tens minus 1 hundred. They learn to record the addition and subtraction of multiples of 100 using arrow way.

$$542 \xrightarrow{+100} 642 \xrightarrow{-10} 632 \xrightarrow{-10} 622 \xrightarrow{-100} 522 \xrightarrow{-100} 422$$



Students will add and subtract multiples of 100 by counting on by hundreds. Students will use different strategies to do this.



Students continue to add and subtract multiples of 100 using different strategies.

$$550 \xrightarrow{+200} 750$$

$$550 \xrightarrow{+200} 750 \xrightarrow{+50} 800$$

$$550 \xrightarrow{+200} 750 \xrightarrow{+50} 800 \xrightarrow{+10} 810$$

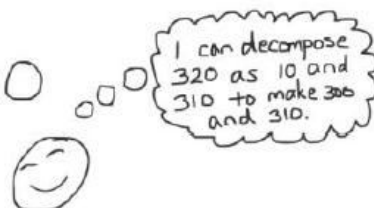


$$780 - 390$$

$$780 \xrightarrow{-300} 480 \xrightarrow{-80} 400 \xrightarrow{-10} 390$$

Students apply the use of number bonds to decompose larger numbers, just as they did with numbers within 100.

$$\begin{array}{r} 320 + 290 = 310 + 300 \\ \swarrow \searrow \\ 310 \quad 10 \end{array} = 610$$



Students will subtract with two-digit numbers and check with addition. Then students move on to three-digit numbers. Students will determine if they will use a tape diagram, number bond or arrow way. Students will see how the Associative Property is relevant.

$$\begin{array}{|c|} \hline 80 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline 50 \\ \hline \end{array} \quad ?$$

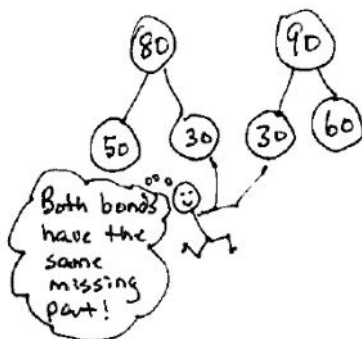
$$80 - 50 = 30$$

$$\begin{array}{|c|c|} \hline 10 & 80 \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline 10 & 50 \\ \hline \end{array} \quad ?$$

$$90 - 60 = 30$$

$$80 - 50 = 90 - 60$$



$$697 \xrightarrow{+3} 700 \xrightarrow{+200} 900 \xrightarrow{+20} 920$$

Students will then have the opportunity to solidify their new skill by solving problems and sharing their solution strategies.