Unit 8 Family Support Materials

Putting It All Together

In this unit, students put together their understanding from throughout the year to cap off the major work and fluency goals of the grade.

Section A - Multiply and Divide Whole Numbers

Students deepen their understanding of the standard algorithm for multiplication and practice using it. They use estimation to determine the reasonableness of their answers, recognize and explain place-value patterns when multiplying multi-digit numbers, and learn how to use the algorithm when one or more of the factors has several zeros.

Here is how Kiran found the value of 650×27*.*
Is the answer reasonable?

$$\begin{array}{r} {\scriptstyle 1\ \ \ } \\ {\scriptstyle 3\ \ \ } \\ 650 \\ \times\ \ 27 \\ \hline 4,550 \\ +\ 1,300 \\ \hline 5,850 \end{array}$$

Find the value of each product.

$$\begin{array}{r} 260 \\ \times\ \ 35 \\ \hline \end{array} \qquad \begin{array}{r} 2,600 \\ \times\ \ 35 \\ \hline \end{array}$$

What's the relationship between 260×35 *and* $2{,}600 \times 35$*?*

Section B - Apply Volume Concepts

Students investigate volume by calculating the volumes of rectangular prisms and estimating the number of books in a library. Students solve problems in a real-world context and consider what it means to measure volume, using different units. The work here prompts students to make reasonable estimates, consider appropriate sizes of units in a given context, and take unit conversion into account in solving problems about volume.

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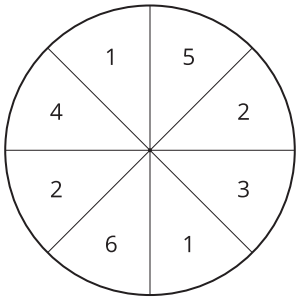
Section C - Fraction and Decimal Operations

Students operate with fractions and decimals. Each lesson is structured as a game day when students learn games for adding and subtracting fractions, adding decimals, and multiplying fractions.



Round 1

$$\frac{\square}{\square} - \frac{\square}{\square} =$$

- *Spin the spinner.*
- *Write the number in an empty box. Keep the chosen box hidden from view.*
- *Once a number is written down, it cannot be changed.*
- *Take turns spinning and writing numbers until all 4 boxes have been filled.*
- *Find the difference. The partner with the greater difference wins the round.*

Section D - Creation and Design

Students have the opportunity to apply what they've learned about instructional routines throughout the year to create their own *Notice and Wonder*, *Estimation Exploration*, *Number Talk*, *True or False*, and *Which Three Go Together?* routines. Students design and create routines in small groups and can facilitate their routine with another group in the class. Each lesson has a content focus provided, so students review major work of the grade through their routines.

Try it at home!

Near the end of the unit, ask your fifth grader to share the instructional routines they created. Questions that may be helpful as they share:

- How did you design the routine?
- How does the routine relate to what you learned this year?
- What might you change to improve the routine?

Solution:
Answers may vary.

Sample response:

- I designed an *Estimation Exploration* routine by first thinking about a situation or a picture that I could use that would make an interesting estimation problem. I wrote a question and then thought about an answer that would be about right, too low, and too high.
- This year I used estimation to help me think about answers that are about right, too low, or too high. Using estimation helped me figure out if my answers were reasonable or not.
- I might include more information in the directions to make it clear for someone who may not have used this routine before.