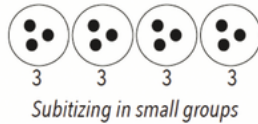


Multiplication Progression

Below is from the OGAP Multiplicative Framework which is based on mathematics education research on how students learn specific mathematics concepts. The goal is to understand and use the algorithm in fifth grade, but the prior understandings are required to become strong multiplicative reasoners throughout third and fourth grade.

Repeated addition with or without a model - $3 \times 4 = 12$

$$3 + 3 + 3 + 3 = 12$$



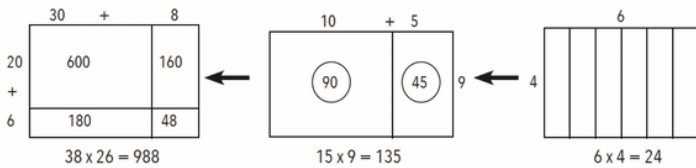
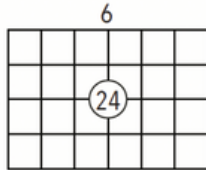
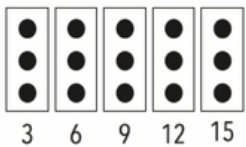
Building up

$$\begin{array}{r} 3 + 3 + 3 + 3 \\ 6 + 6 \\ 12 \end{array}$$



Equal groups in an array

Area Model - $6 \times 4 = 24$



Partial Products

Traditional

$$\begin{array}{r} 16 \\ \times 42 \\ \hline 12 \\ 20 \\ 240 \\ 400 \\ \hline 672 \end{array}$$

$$\begin{array}{r} 21 \\ 16 \\ \times 42 \\ \hline 32 \\ 640 \\ \hline 672 \end{array}$$

Second Trimester

In third grade, students wrapped up their chapter on multiplying by single digit numbers then moved to multiplying by multiples of ten. When multiplying by single digit numbers, third graders were exposed to multiple strategies but focus mostly on equal groups and area situations. Third graders are beginning fractions, where the focus is conceptual understanding through visual models and the use of fractions in simple, real-world contexts.

Fourth graders completed their unit on the four operations with whole numbers then moved to fractions. The emphasis was on building a strong foundation in understanding fractions in fourth grade. They explored equivalence, comparisons, adding and subtracting like fractions, and were introduced to mixed numbers. Next, students will move to decimal notation of fractions (expressing fractions as decimals).

In fifth grade, students recently concluded the units on the four operations of fractions. Within the fractions units, fifth graders explored adding and subtracting unlike fractions, multiplying and dividing by fractions, and applying operations with fractions to solve real-world problems, including those involving measurement and the interpretation of fractions in various contexts.

Grading & Reporting

Beginning this year, we have added a rubric to every summative math assessment. Rubrics are valuable tools that provide clarity and transparency in assessing your child's performance. They offer a clear breakdown of the criteria used for evaluation, enabling both you and your child to understand the expectations thoroughly.

How to Help at Home

- Listen to how your child makes sense of the math they are learning at school. Let them explain their thinking to you.
- Have your students complete lessons/activities in Zearn.
- Play board games and card games as a family.
- Practice math facts in the car. Use numbers from street signs have your child create ways to make that number with various operations.
- Talk about math in everyday life. Any time you point out the role numbers play in our lives, the more relevant the subject becomes for your child.

ELA - GRADES 3-5



Second Trimester

Students in third grade completed the problem-solving unit by reading books on real-world issues and obstacles. Students have been working on narrative writing. Students have also been learning about important comprehension skills such as main ideas, details, problems, and solutions. Students spelling concepts have been centered around r-controlled vowel combinations. Words such as artist, serve, and pair all have r-controlled vowel combinations.

Fourth grade students have been actively engaged in reading realistic and expository texts that focus on technological advancements, creating a positive impact, and exploring historical events and their relevance in shaping the future. Additionally, students have engaged in the poetry. Spelling concepts have also emphasized vowel combinations and advanced spelling rules.

Students in the fifth grade are completing their informational writing projects. They have been reading about a variety of themes, such as working together to overcome obstacles. They have recently finished their book projects as well. Additionally, students have been delving deeply into advanced phonics skills for spelling, such as comprehending and writing words with different syllable types.

How to Help at Home

What to notice at home and what good readers do.

Draw on prior knowledge. Good readers draw on prior knowledge and experience to help them understand what they are reading.

Draw inferences. In addition to understanding the literal points that the author is making, good readers are able to “read between the lines” and draw inferences about a wide range of hidden meanings, such as why events are unfolding as they do, why characters behave in a certain way, what the characters are thinking, and what might happen next.

Self-monitor. During reading, good readers learn to monitor their understanding, adjust their reading speed to fit the difficulty of the text, and address any comprehension problems they have. After reading, they check their understanding of what they have read. Students who are good at monitoring their comprehension know when they understand what they’re reading and when they don’t.

Form mental images. Good readers often form mental pictures, or images, as they read. Readers (especially younger readers) who picture the story during reading understand and remember what they read better than readers who do not create a picture in their mind.

Summarize and retell. Summarizing requires students to determine what is important in the text and then put it into their own words by retelling, verbally or in writing. Instruction in summarizing can help students become more purposeful as they read and more skilled in comprehending. Summarizing can help students to:

- Identify main ideas orally or in writing.
- Connect the main or central ideas orally or in writing.
- Learn to weed out unnecessary information.
- Remember what they have read.