

In an effort to keep parents and guardians informed of the expectations and content being covered in math class this year, this informational handout will be provided for each chapter. Its intent is to assist in guiding you in ways to support your child in deepening their mathematical understanding.



Scan the QR code to check out teaching strategies for this chapter.

In each chapter we will spend time reviewing material taught in prior grades as it relates to the standards being taught in fifth grade. Our goal is to keep a balance of skill based learning along with enhancing our student's ability to problem solve and think conceptually.

Review Material from Prior Grades
<ol style="list-style-type: none"> 1) Fluently add and subtract multi-digit whole numbers using the standard algorithm. (4.NBT.4) 2) Multiply a whole number up to four digits by a one-digit number. Multiply two two-digit numbers. (4.NBT.5) 3) Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. (4.NBT.6)
New Material for 5th Grade
<ol style="list-style-type: none"> 1) I can find patterns in zeroes and decimal point placement when multiplying or dividing by a power of ten. (5.NBT.2) 2) I can use place value to round decimals to any place. (5.NBT.4) 3) I can fluently multiply multi-digit whole numbers using the standard algorithm. (5.NBT.5) 4) I can multiply and divide decimals to hundredths. (5.NBT.7)
End of Chapter Expectations
<ol style="list-style-type: none"> 1) Chapter Assessment

*Please note the list above highlights the main skills to be assessed. Teachers may include additional content to meet the needs of their students.

Strategies for Multiplying and Dividing Decimals

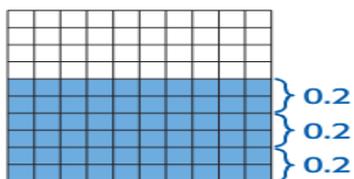
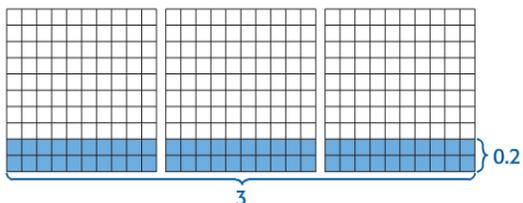
☺ Family Practice ☺

Check out some of these free, math websites to practice decimal skills and concepts.

- 1) Scientific Notation- <http://mrnussbaum.com/grade5standards/511-2/>
- 2) Half Court Rounding- <http://mrnussbaum.com/rounding/>
- 3) Scooter Quest Decimal Rounding-
<http://www.sheppardsoftware.com/mathgames/decimals/scooterQuestDecRound.htm>
- 4) Multiplying with Decimals- <http://www.funbrain.com/cgi-bin/fb.cgi?A1=start3&A2=Medium&ALG=No&INSTRUCTS=1>
- 5) Internet 4 Classrooms-
http://www.internet4classrooms.com/common_core/add_subtract_multiply_divide_decimals_hundredths_number_operations_in_base_ten_fifth_5th_grade_math_mathematics.htm

Use Base-Ten Models to Multiply Decimals by Whole Numbers

Find 0.2×3 using base-ten models
The 2 rows of each model that are shaded represents 0.2.



The shaded parts are combined onto one model.

Six tenths of the model is shaded, so $0.2 \times 3 = 0.6$.

Multiply Decimals (using repeated addition)

Find 0.2×3 using repeated addition.

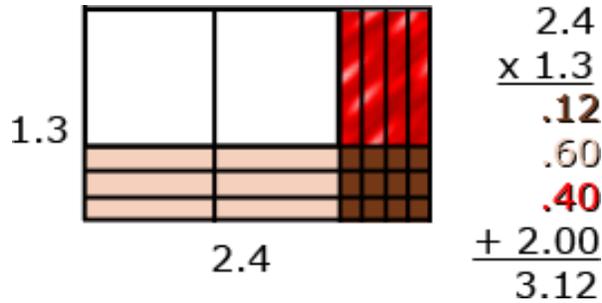
$$\begin{array}{r} 0.2 \\ 0.2 \\ + 0.2 \\ \hline 0.6 \end{array}$$

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Strategies for Multiplying and Dividing Decimals, Continued

Area Model

An area model can be useful for illustrating products.



Students should be able to describe the partial products displayed by the area model. For example,

" $\frac{3}{10}$ times $\frac{4}{10}$ is $\frac{12}{100}$.
 $\frac{3}{10}$ times 2 is $\frac{6}{10}$ or $\frac{60}{100}$.
 1 group of $\frac{4}{10}$ is $\frac{4}{10}$ or $\frac{40}{100}$.
 1 group of 2 is 2."

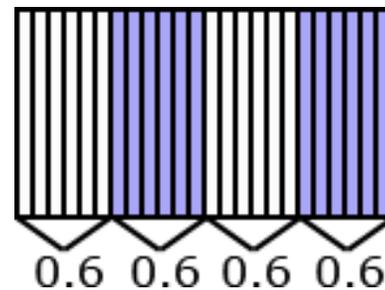
The video below explains this strategy.
<https://learnzillion.com/student/lessons/558-multiplying-whole-numbers-and-decimals-using-an-area-model>

Fair Sharing Model

Finding the number in each group or share.

Students are encouraged to apply a fair sharing model separating decimal values into equal parts such as:

Find 0.6×4 .



Count all the parts to get your product.

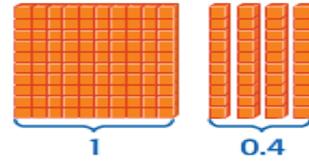
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Strategies for Multiplying and Dividing Decimals, Continued

Divide Decimals Using Models

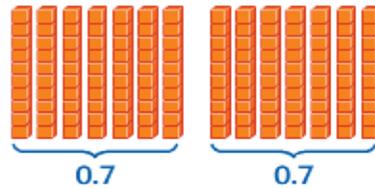
Find $1.4 \div 0.7$ using models.

1) The model shows 1.4 using one whole and four tenths.



2) Since you are dividing by tenths, the whole block was replaced with tenths.

3) The tenths are separated into groups of seven tenths to show dividing by 0.7.



There are 2 groups with none left over.

So, $1.4 \div 0.7 = 2$

**This same strategy can be used when dividing by a whole number.*

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