

Math Connections for Parents

Grade 5 Module 1
Place Value and Decimal Fractions

Welcome to Fifth Grade Math! Newark City Schools is using the EngageNY curriculum, which is aligned with Ohio's New Learning Standards. This guide is designed to give you an overview of the Math Modules that your child is learning in class, and to provide support as you help your child with mathematics at home.

Important Words and Concepts

- Tenths, Hundredths, Thousandths (decimal place value places)
- Exponents: how many times a number is to be used in a multiplication sentence (3^2)
- Millimeter: metric unit equal to one thousandth of a meter
- Centimeter: cm, unit of measure equal to one hundredth of a meter
- Standard form: a number written in the format i.e. 135
- Expanded form: $135 = 100 + 30 + 5$
- Word form: one hundred thirty-five
- Unit form: $3.21 = 3 \text{ ones } 2 \text{ tenths } 1 \text{ hundredths}$
- Bundling: making, renaming, changing, exchanging, regrouping, tradition (exchanging 10 ones for 1 ten)

Multiplying Multi-Digit Numbers

Students should have already worked on mastery of basic multiplication and division facts. The emphasis in fifth grade is on multiplying multi-digit whole numbers with a standard algorithm, and to be able to multiply with decimals to the hundredths place value. You can help your child by making sure they have a solid base of basic fact recall.

KEY STANDARDS

- Understand the place value system (recognize that a digit in one place represents 10 times as much as the place to its right, and $1/10$ of the place to its left).
- Explain patterns in the number of zeros of the product when multiplying a number by powers of 10. Use whole number exponents to show powers of 10. ($10^3 = 10 \times 10 \times 10$ or 1,000)
- Read, write and compare decimals to the thousandths
- Use place value to round decimals to any place.
- Add, subtract, multiply and divide decimals to hundredths.

Graphics and Strategies you may see...

Place value chart to the thousandths place

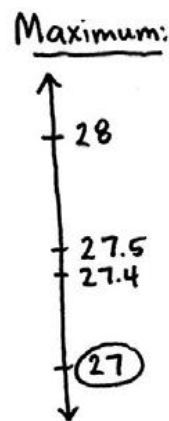
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
							●		
	1						●		

Note: An arrow points from the '1' in the 'Hundred Thousands' place to the '1' in the 'Tens' place, labeled with '÷ 10'.

Comparing decimals using place value

	3	4	●	2	2	3
	3	4	●	2	3	2

$$34.223 < 24.232$$



Students could use a vertical number line to round decimals. 27.4 rounded to the nearest whole number is 27

Sample Word Problem:

Mrs. Henderson makes punch by mixing 10.9 liters of apple juice, 600 milliliters of orange juice, and 8 liters of ginger ale. She pours the mixture equally into 6 large punch bowls. How much punch is in each bowl? Express your answer in liters.

Answer: 10.9

$$\begin{array}{r} 0.6 \\ + 8.0 \\ \hline \end{array}$$

19.5 liters total

$$19.500 \div 6 = 3.25 \text{ liters of punch}$$