

EUREKA MATH INFORMATION SESSION

NMES Open House ~ August 6, 2019

WHY EUREKA MATH?

- Created by Great Minds, a nonprofit organization made up of classroom teachers and scholars
- Based on the worlds' most success math programs
- **Core Principle:** Students need to know **WHY** problem solving works, not just **HOW** it works.
- Goes beyond facts and formulas
- Teaches students to think about problem solving conceptually.
- www.greatminds.org/data

WHY EUREKA MATH?

- Problem solving strategies will be different than what most parents are used to seeing students use.
 - *Please don't get frustrated!*
- Students will focus on visual models to help them understand the concept (or the why) behind the problem.
- Every strategy and model is used intentionally and with purpose.
- Parents have access to online resources free of charge to help them understand the program.

**WEBSITE:
CREATING
YOUR PARENT
ACCOUNT**

www.greatminds.org

MATH INDIANA STANDARDS ALIGNMENT STUDY	🔗 ×
MATH PARENT TIP SHEETS GRADE 5	🔗 ×
MATH GRADE ROADMAPS K-7	🔗 ×
MATH EUREKA BASIC CURRICULUM FILES	🔗 ×

Indiana Standards Alignment Study

INDIANA STANDARDS ALIGNMENT STUDY

A detailed analysis to demonstrate how each grade of Eureka Math aligns with the Indiana state standards.

INDIANA STANDARDS ALIGNMENT STUDY

GRADE K



GRADE 1



GRADE 2



GRADE 3



GRADE 4



GRADE 5



BASIC CURRICULUM FILES

EUREKA BASIC CURRICULUM FILES

This free PDF version of the Eureka Math basic curriculum includes over 20,000 pages and features sequenced lessons, formative assessments, and fully integrated professional development for grades PK – 12. The package includes: Student and Teacher Editions, Curriculum Maps and Curriculum Overviews.

EUREKA BASIC CURRICULUM FILES

A STORY OF UNITS (PK-5)















A STORY OF RATIOS (6-8)



A STORY OF FUNCTIONS (9-12)



BASIC CURRICULUM FILES

GRADE K	
RELEASE NOTES	 
MATERIALS LIST	 
MODULE 1 - NUMBERS TO 10	
TEACHER EDITION	 
STUDENT CLASSWORK, HOMEWORK, AND TEMPLATES	 
SPRINT AND FLUENCY, EXIT TICKET, AND ASSESSMENT MATERIALS	 
EXIT TICKETS	 

ROADMAPS OF EACH MODULE

Here are just a few examples of how students will learn about and work with fractions in grade three.

Grade Two Mathematics

- Break circles and rectangles into two, three, or four equal parts
- Describe parts of a whole using the words halves, thirds, half of, a third of, etc.
- Describe a whole as two halves, three thirds, four fourths

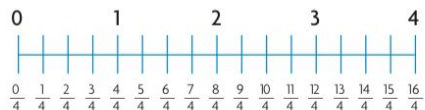
Grade Three Mathematics

- Determine a fraction's place on a number line by defining the length from 0 to 1 as the whole and "cutting it" into equal parts
- Understand two fractions as equal if they are the same size or at the same point on a number line
- Compare the size of two different fractions of the same size object. For example, which is bigger, $\frac{1}{4}$ of a pizza or $\frac{1}{8}$ of that same pizza?

Grade Four Mathematics

- Break down a fraction into smaller fractions with the same denominator, or bottom number, in more than one way ($\frac{1}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{1}{4} + \frac{1}{8}$)
- Explain why a fraction is equal to another fraction
- Add and subtract mixed numbers (whole numbers mixed with fractions, such as $1\frac{1}{4}$) with the same denominators
- Multiply a fraction by a whole number

Using a number line helps students think of a fraction as a number.



PARENT TIP SHEETS

KEY CONCEPT OVERVIEW

Lessons 1 through 4 focus on understanding **place value** and representing numbers from millions to thousandths on a **place value chart**.

You can expect to see homework that asks your child to do the following:

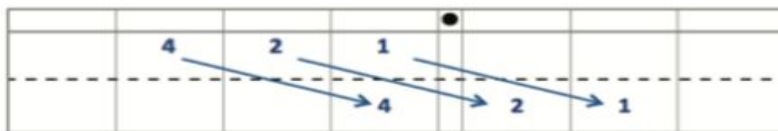
- Multiply and divide by 10, 100, and 1,000 using the place value chart (as shown in the sample problem below).
- Write numbers in **exponential form** (e.g., $10,000 = 10^4$), and write exponential numbers in **standard form** (e.g., $9 \times 10^3 = 9,000$).
- Use knowledge of measurements (e.g., $3 \text{ m} = 300 \text{ cm}$) and exponential form (e.g., $3 \times 10^2 = 300$) to solve problems.

PARENT TIP SHEETS

SAMPLE PROBLEM (From Lessons 1-4)

Use the place value chart and arrows to show how the value of each digit in the number 421 changes when it is divided by 100.

a. $421 \div 100 = 4.21$



b. Write 100 in exponential form.

$$100 = 10^2$$

c. Convert 421 millimeters to meters, and write an equation with an exponent.

$$421 \text{ mm} = 0.421 \text{ m}$$

$$421 \div 10^3 = 0.421$$

PARENT TIP SHEETS

HOW YOU CAN HELP AT HOME

- Practice drawing and labeling a place value chart (to the thousandths). Take turns drawing disks on the chart. Challenge each other to say the name of the number that was drawn.
- Practice metric conversions with your child in the kitchen. For example, measure water, juice, or milk in milliliters and liters (1 L = 1,000 mL). Measure rice, beans, oatmeal, or sugar in grams and kilograms (1 kg = 1,000 g). Measure the kitchen counter, refrigerator, or walls in millimeters, centimeters, and meters (1 m = 100 cm and 1 m = 1,000 mm).
- Play the "Exponent" dice game with your child.

1. Your child rolls a die to represent an exponent. The base number is 10.
2. You ask your child to say the number in standard form.

For example, your child rolls a 4. You ask, "Say 10^4 in standard form." He says, "10,000."

PARENT TIP SHEETS

TERMS

Exponential form: A numeric form involving exponents (e.g., the exponential form of 1,000 is 10^3).

Place value: The value of a given digit based on its position in a number (e.g., the place value of the digit 2 in 235 is 200 (2 hundreds)).

Standard form: A way to write numbers using the digits 0–9 (e.g., the standard form of seventy-two and forty-eight thousandths is 72.048).

PARENT TIP SHEETS

MODELS _____

Place Value Chart

1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
							.			