

# Curriculum Corner

## 2019-20

Quarter 1



## Hollifield Station Elementary School

### Curriculum Corner

#### Communication

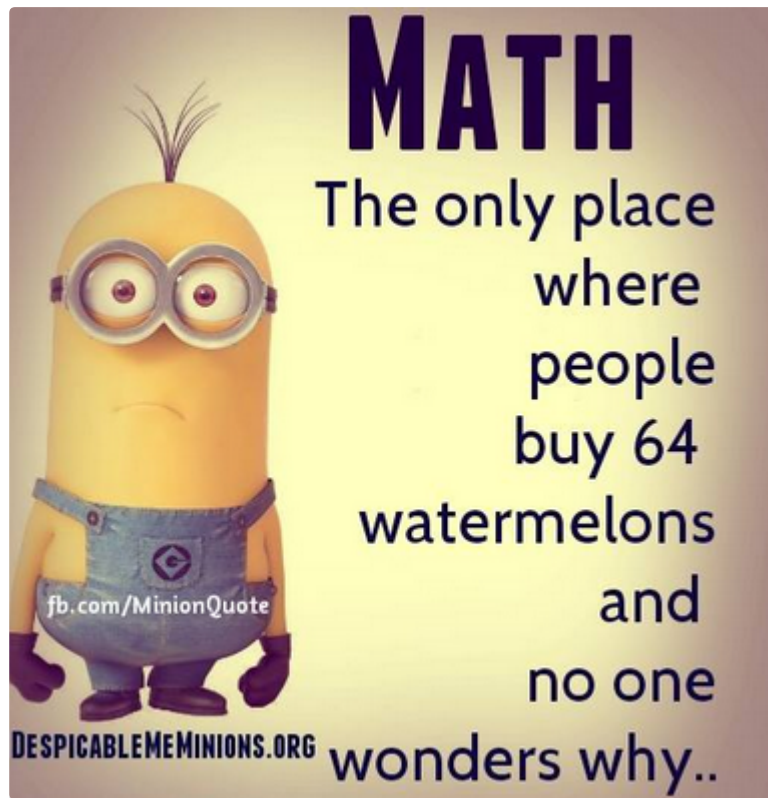
As part of our vision of effective communication, this school year we will be developing quarterly newsletters focused on curriculum and topics of interest. I will send this newsletter through the news alert and include them in the Hollifield Herald. Our weekly Hollifield Herald will continue to provide details on upcoming dates and events with descriptions of these events. We hope you find these forms of communication helpful throughout the year.

#### Curriculum

As a parent myself, I know that how we were taught growing up looks much different than how our students are taught today. In particular, mathematics is the one content area that has seen the most dramatic change in instruction. I often find myself in math classes saying "I wish I learned math this way!" If you don't understand a strategy or the new method for solving certain problems, it can be overwhelming. In order to deepen my own knowledge of math and the resources HCPSS has on hand, I took math classes over the past few summers. The resources that HCPSS provides are amazing and so helpful in understanding the quality instruction that our students receive. For this edition, I am focusing on math resources and instructional placement practices. Any feedback for what you like and what you would like to see in these newsletters is welcomed. [amanda\\_wadsworth@hcpss.org](mailto:amanda_wadsworth@hcpss.org)

**We hope enjoy this addition to our communication!**

# Mathematics



## Math in Minutes

Have you seen these wonderful short clips explaining the larger, overarching concepts and strategies provided in math instruction? Our mathematics office has developed a wonderful resource that explains content in minutes (embedded below). The first video is an overview by the Coordinator of Mathematics, John SanGiovanni, who discusses the broad changes in math instructions.

### Math in Minutes by Name and Order Embedded:

Decomposition of Numbers - <https://vimeo.com/198245972>

Addition with a Numbers Chart - <https://vimeo.com/198363210>

Subtractions with a Numbers Chart - <https://vimeo.com/198389062>

Addition on a Number Line - <https://vimeo.com/198712648>

Comparing Fractions Using Benchmarks - <https://vimeo.com/210593129>

Comparing Fractions with Common Numerators <https://vimeo.com/216911777>

Comparing Fractions by Reasoning - <https://vimeo.com/224367758>

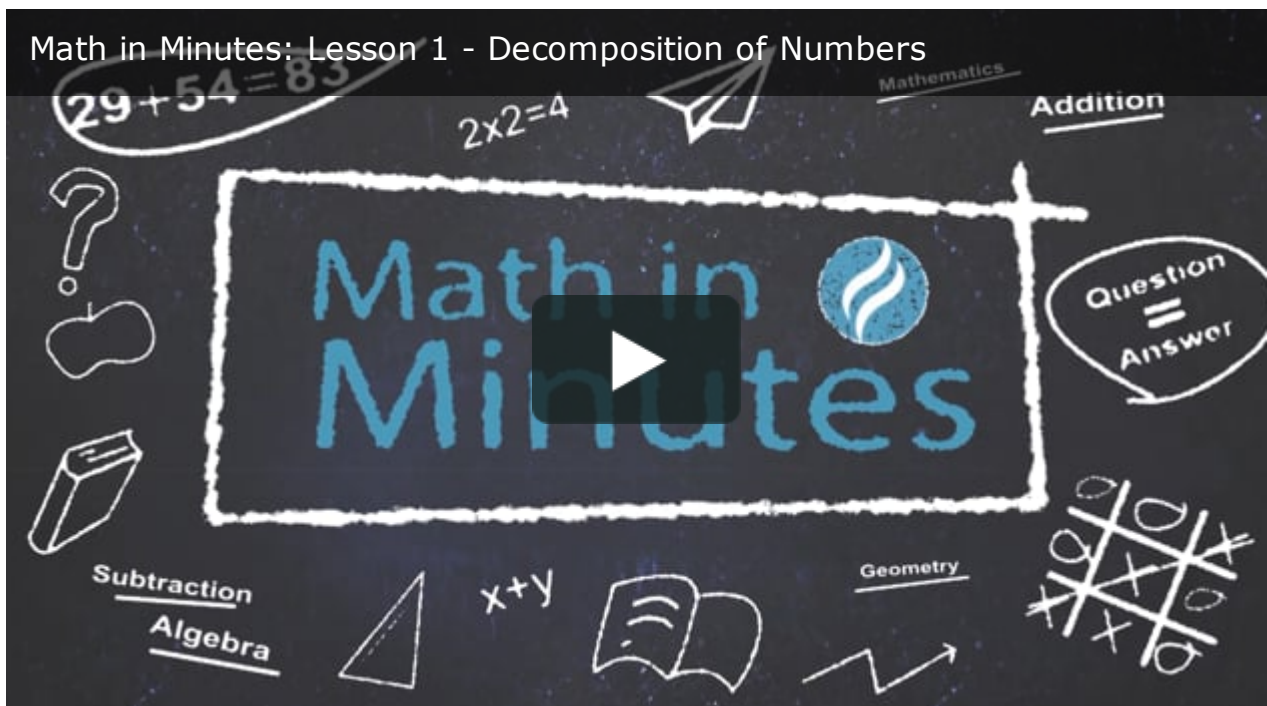
Partial Products - <https://vimeo.com/217214462>

Partial Sums - <https://vimeo.com/217232809>

Has Common Core changed the way we approach math instruction?

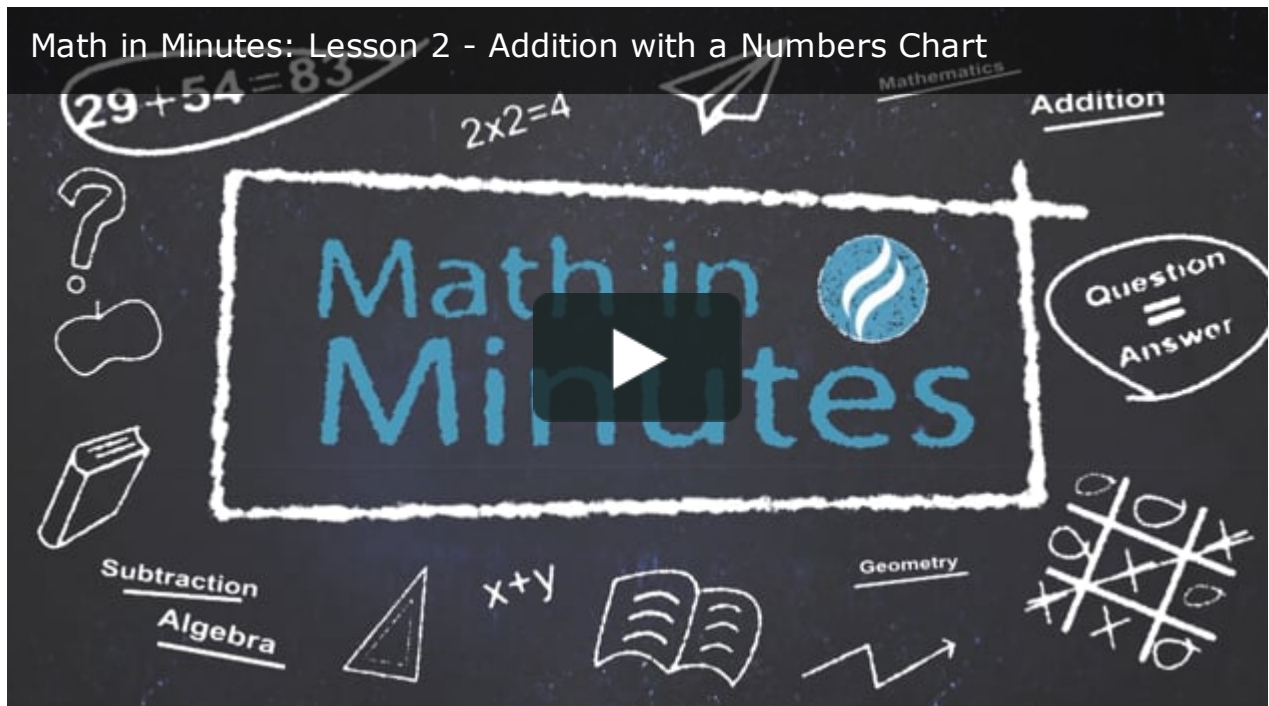


Math in Minutes: Lesson 1 - Decomposition of Numbers

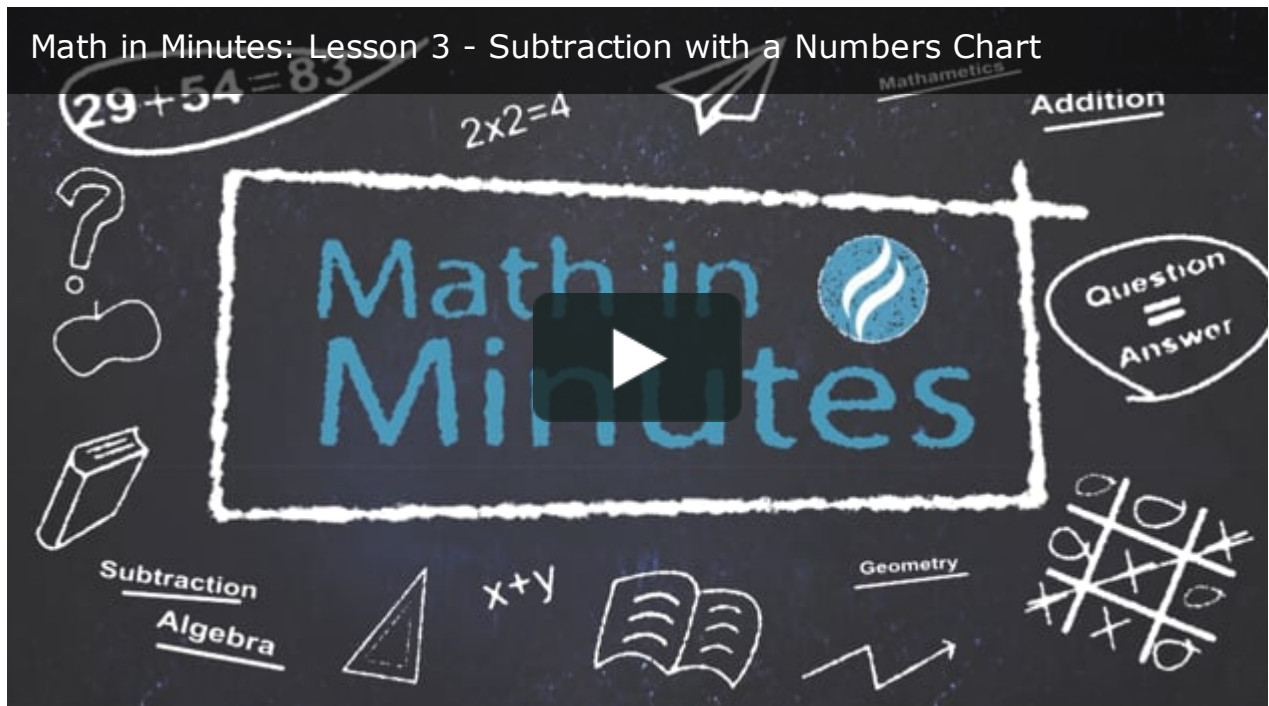




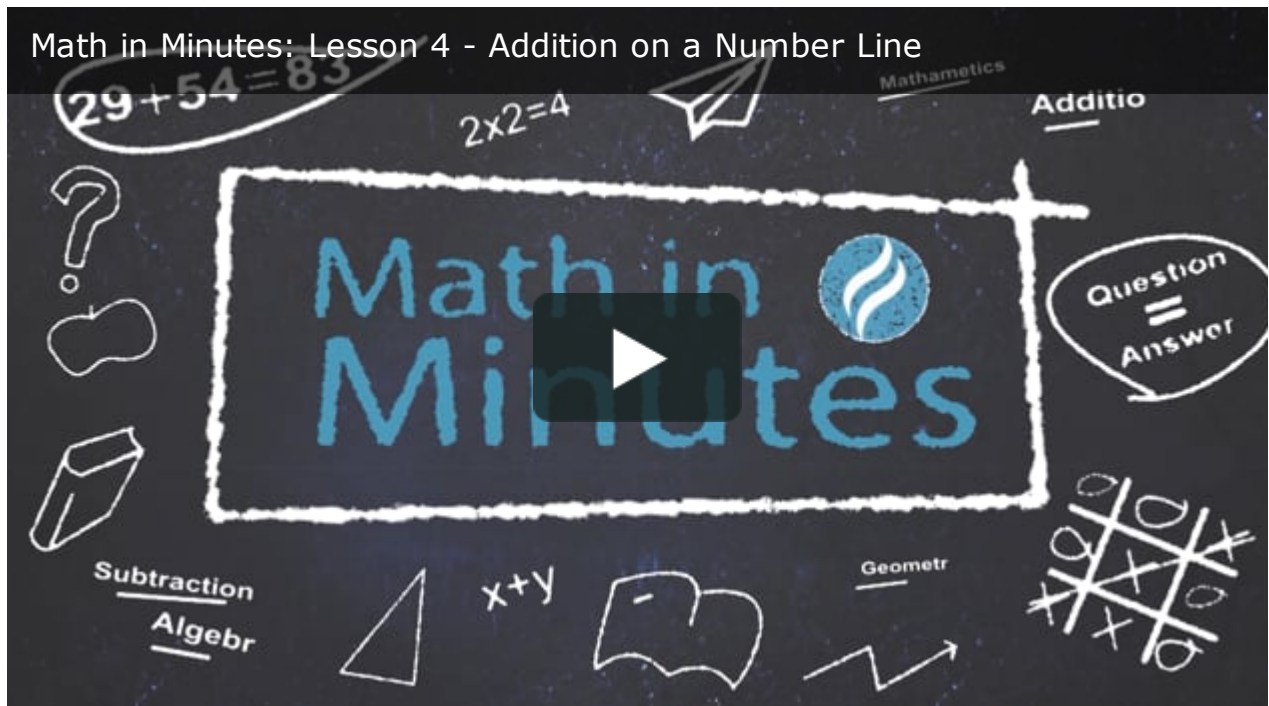
## Math in Minutes: Lesson 2 - Addition with a Numbers Chart



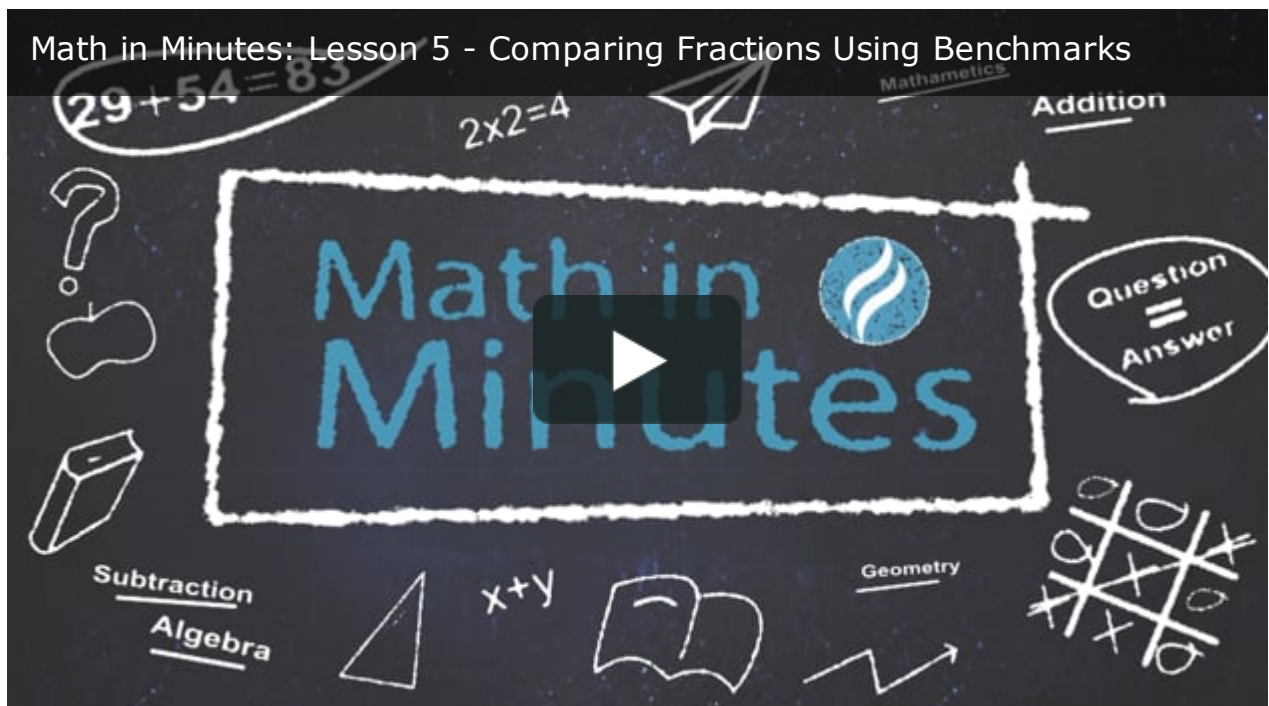
## Math in Minutes: Lesson 3 - Subtraction with a Numbers Chart



## Math in Minutes: Lesson 4 - Addition on a Number Line

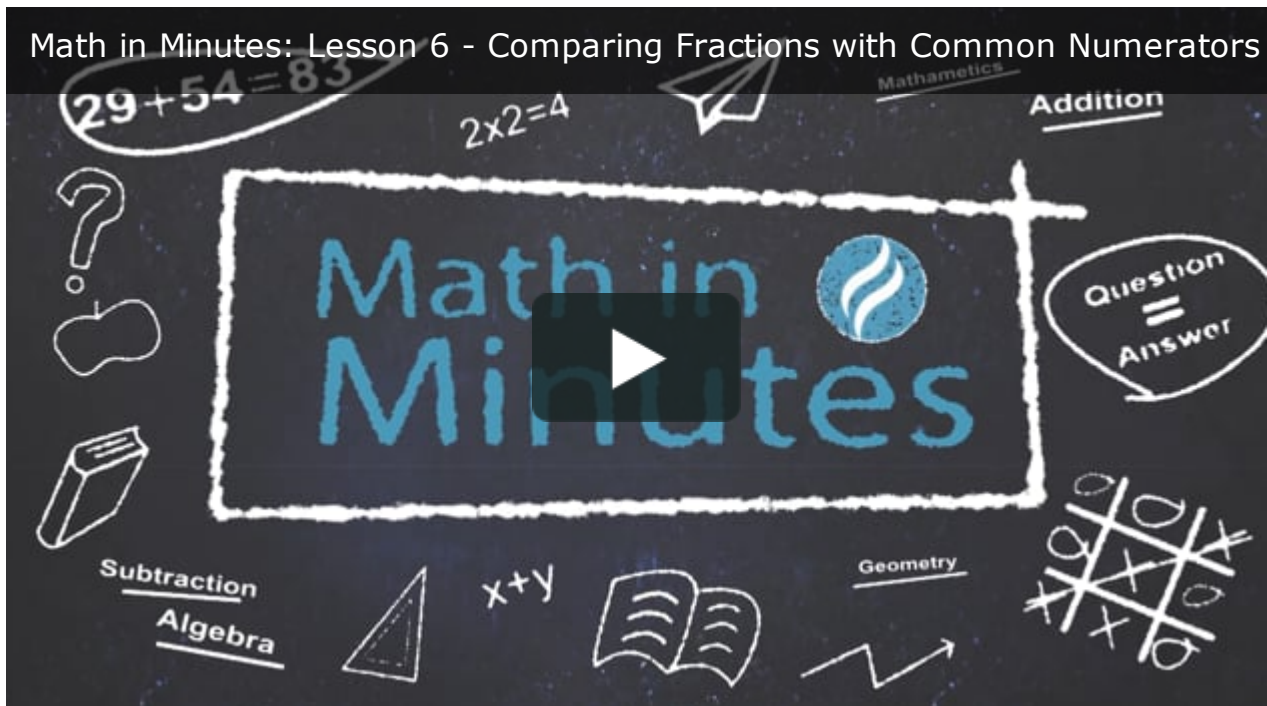


## Math in Minutes: Lesson 5 - Comparing Fractions Using Benchmarks





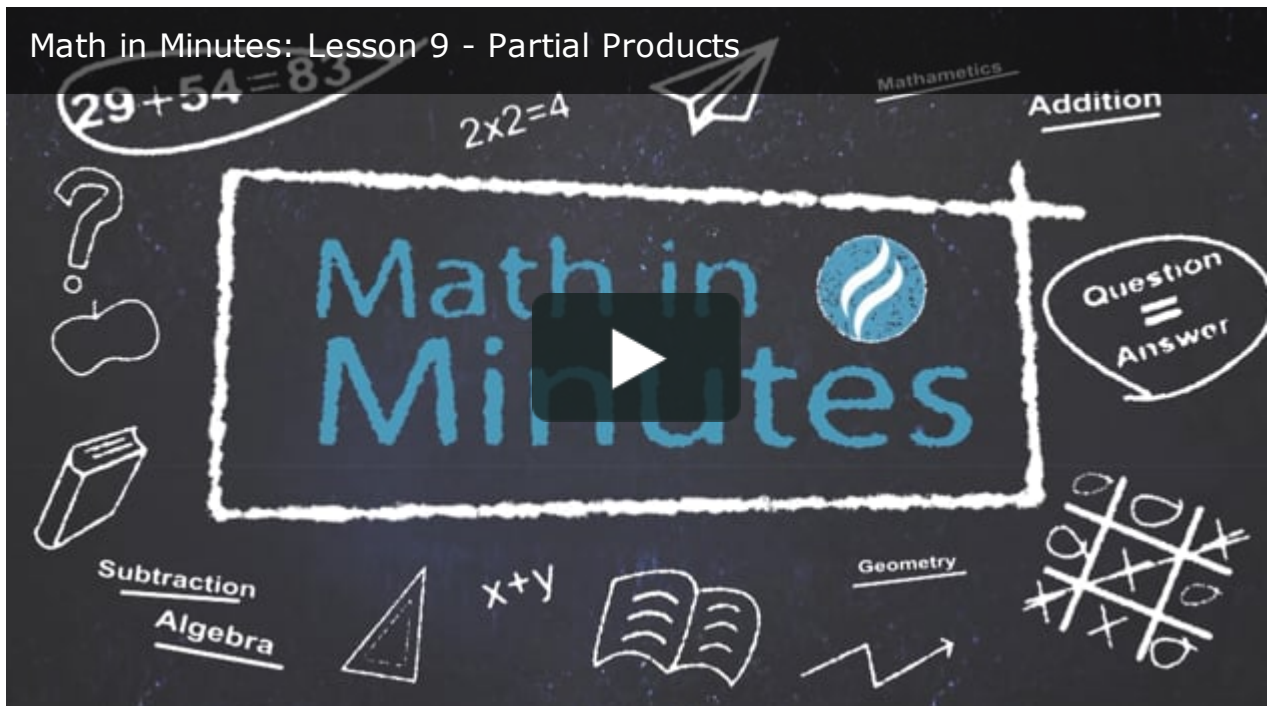
## Math in Minutes: Lesson 6 - Comparing Fractions with Common Numerators



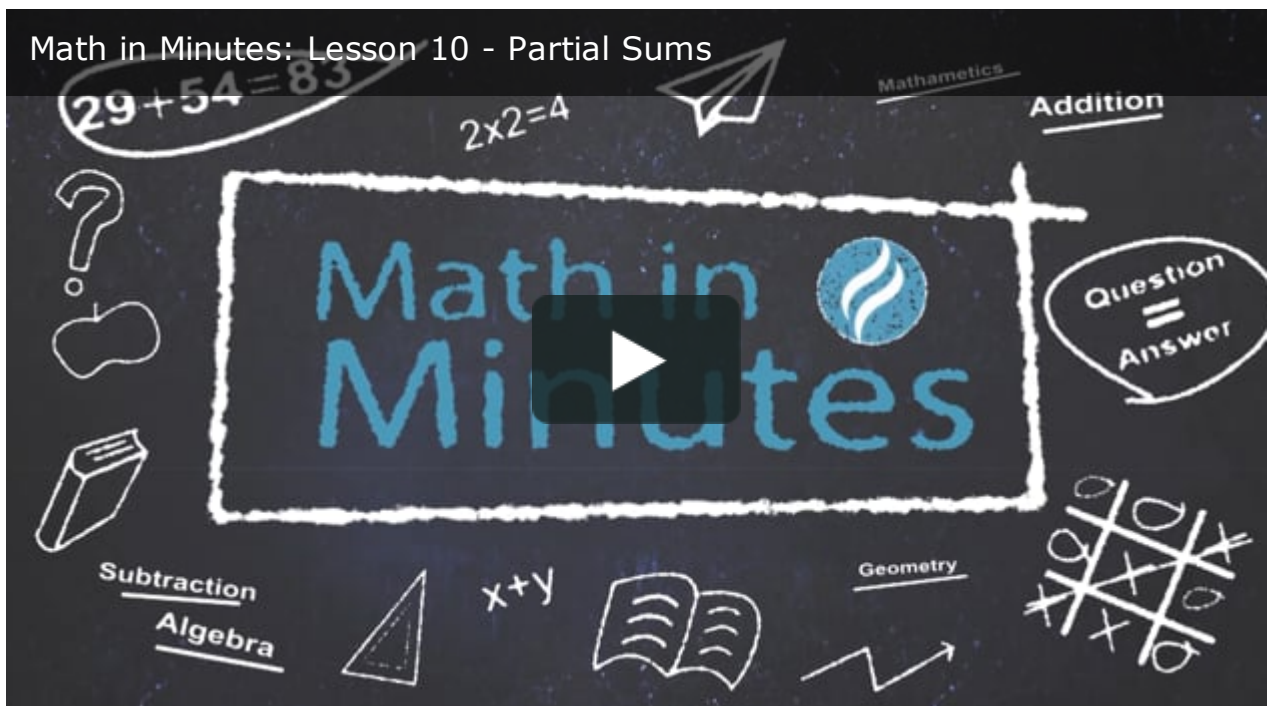
## Math in Minutes: Lesson 7 - Comparing Fractions by Reasoning



### Math in Minutes: Lesson 9 - Partial Products



### Math in Minutes: Lesson 10 - Partial Sums



## HCPSS Family Mathematics Support Center

<http://hcpssfamilymath.weebly.com/>

## Mathematics - Instructional Placement Decisions

There are often questions around how students' instructional placement (on, above, below, GT) are determined. In order to assist in your understanding, I am sharing the data that is collected and the thought process used in order to determine placement.

A mathematics instructional level is determined by a student's performance. Performance equally measures concepts, procedures, and application of mathematics.



Data used in determining placement:

- Mathematics Learning Behaviors (These are in line with the [Standards for Mathematical Practice](#))
- Teacher selected assessments (exit tickets, observational checklists, rubrics, etc.)
- Measure of Academic Progress (MAP)
- PARCC (state assessment)
- Number Readiness Assessment
- CogAT assessment
- Articulation with former math teachers as needed

Student placement is adjusted when evidence indicates it is appropriate regardless of time of year. Students moving after the beginning of the year would be provided supports as needed to adjust to the new placement.


## Mathematics Resources - Reminders of resources

### How do I best use the resources from HCPSS to support my child in Math?

HCPSS has two resources that are similar in content, can help you identify the standards that your child is working on, and provide resources to support practice at home. This information is also supported by your child's math teacher when they post the standards for the month on their Canvas page, as well as in the "Curriculum by Weeks" link that is in every Hollifield Herald.

### **Family and Community Resources (Links by grade level below)**

The first resource is the link to the Family and Community Resources page. This page has listed what your child will learn by Quarter. The title of each of the broad concepts is at the top of each section (ex. The Number System). There are links to web based games as well as ideas for activities to do. You have to click on "What Your Child Will Learn" under each content area. Below is a visual of Math and how it is displayed.



THE NUMBER SYSTEM			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
		Divide fractions by fractions and solve word problems involving division of fractions	Divide fractions by fractions and solve word problems involving division of fractions
Fluently divide multi-digit numbers with the standard algorithm			
Fluently add, subtract, multiply and divide decimals			
Find the greatest common factor and lowest common multiples of numbers			
	Understand the meaning of positive and negative numbers		
	Order rational numbers on number lines	Order rational numbers on number lines and plot as ordered pairs on a coordinate plane	

Kindergarten - <https://hcpss.instructure.com/courses/34447>

1st Grade - <https://hcpss.instructure.com/courses/32029>

2nd Grade - <https://hcpss.instructure.com/courses/34428>



## FAMILY AND COMMUNITY RESOURCES -- SCREENSHOTS OF A 5TH GRADE PAGE "HOW TO SUPPORT YOUR CHILD" ARE SHOWN BELOW:

### Grade 5 • Mathematics • Place Value and Decimals

#### Grade 5 Family and Community Resources

#### Mathematics • How to support your child

RELATED ARTS MATHEMATICS LANGUAGE ARTS SCIENCE SOCIAL STUDIES HEALTH

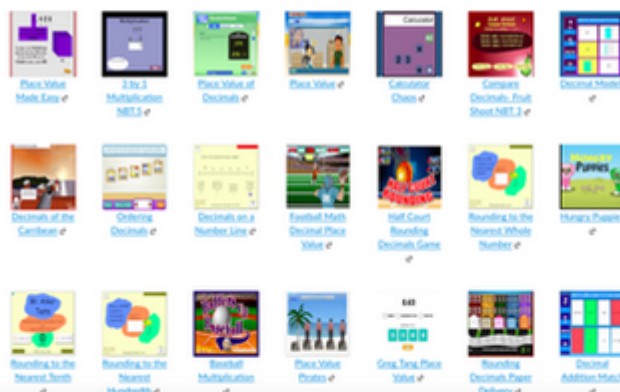
#### Place Value and Decimal Vocabulary

- **Decimal:** a number that uses place value and a decimal point to show values less than one, such as tenths and hundredths
- **Place Value:** the value of a digit in a number
- **Standard Algorithm:** a way of setting out a step-by-step mathematical procedure
- **Rounding:** to find the nearest ten, hundred, or thousand (and so on) (For example, 391 rounds up to 400 and 331 rounds down to 300)
- **Digit:** a symbol used to show a number
- **Power of 10:** when one of the factors is a multiple of ten, you can use place value patterns and basic facts to find the product
- **Product:** the result (answer) of multiplying a set of numbers together
- **Quotient:** the result (answer) of dividing two numbers
- **Estimate:** to find a number close to an exact amount
- **Operations:** Addition, Subtraction, Multiplication, Division

#### Place Value and Decimal Activities

- Create number cubes or spinners and have the student identify the place value and value of different digits in that number.
- Roll or pick numbers to create decimals. Add, subtract, multiply, or divide the decimals.
- Find the batting averages or other statistics in the sports section of a newspaper and add or subtract the statistics.
- Estimate and find the sums and differences of items at the store and in restaurants.
- Practice basic addition, subtraction, multiplication and division facts.
- Roll or pick numbers to create decimals. Compare and order the numbers.
- Choose a four-digit number. Multiply and divide by powers of 10 (10, 100, 1,000, etc.) by moving the decimal point left or right as appropriate.

#### Place Value and Decimal Online Activities



## Place Value and Decimal Independent Practi

- [Finding Value with Decimals](#) ↗
- [Examining Digit Place Values](#) ↗
- [Decimal Equation Patterns](#) ↗
- [Multiplying and Dividing by Powers of Ten](#) ↗
- [Dividing by Multiples of Ten](#) ↗
- [Multiplying by 10s and 100s](#) ↗
- [Multiplying and Dividing by Powers of Ten 2](#) ↗
- [Understanding Multiplying by 10s, 100s & 1,000s](#) ↗
- [Decimals \(Up to Thousandths\)](#) ↗
- [Expanded Notation to Numeric with Decimal](#) ↗
- [Expanded to Numeric with Decimals](#) ↗
- [Numeric to Expanded Notation with Decimals](#) ↗
- [Numeric to Expanded with Decimals](#) ↗
- [Numeric to Word With Decimals](#) ↗
- [Word to Numeric With Decimals](#) ↗
- [Comparing to Thousandths](#) ↗
- [Up to Thousandths](#) ↗
- [Rounding Decimals \(Tenths and Hundredths\)](#) ↗
- [Vertical 3-digit x 2-digit](#) ↗
- [Vertical 4-digit x 2-digit](#) ↗
- [3-digit x](#) ↗ [2-digit](#) ↗
- [3-digit x 3-digit](#) ↗
- [3-digit ÷ 2-digit](#) ↗
- [4-digit ÷ 2-digit \(with remainder\)](#) ↗
- [Adding & Subtraction Decimals \(horizontal\)](#) ↗

## Curriculum by Weeks gives me the Standard - Now What?

### Essential Curriculum Documents (Links by grade level below)

These documents have the same broad concept titles as listed under Family and Community Resources (ex. The Number System), and they have the actual standard **identifier** (see visual below) listed next to each standard (ex. K.CC.4) description. This **identifier** is helpful if you want to look up on a Google search for additional activities or through one of the websites, such as learnzillion.com.

You can also use the these documents to support the standards provided in the Curriculum by Weeks.

Kindergarten - [http://www.hcpss.org/f/academics/math/curr\\_math\\_gk\\_201112.pdf](http://www.hcpss.org/f/academics/math/curr_math_gk_201112.pdf)

1st Grade - <http://www.hcpss.org/f/academics/math/math-grade-one-curriculum.pdf>

2nd Grade - <http://www.hcpss.org/f/academics/math/math-grade-two-curriculum.pdf>

3rd Grade - <http://www.hcpss.org/f/academics/math/math-grade-three-curriculum.pdf>

4th Grade - <http://www.hcpss.org/f/academics/math/math-grade-four-curriculum.pdf>

4th GT - <http://www.hcpss.org/f/academics/math/math-grade-four-gt-curriculum.pdf>

5th Grade - <http://www.hcpss.org/f/academics/math/math-grade-five-curriculum.pdf>

5th GT - <http://www.hcpss.org/f/academics/math/math-grade-five-gt-curriculum.pdf>



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Grade 5 Mathematics (Above Grade Level)  
Essential Curriculum


Standards for Mathematical Practice emphasized throughout the year:


- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

**The Number System**

- Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions by using visual fraction models and equations to represent the problem. (6.NS.1)
- Fluently divide multi-digit numbers using the standard algorithm. (6.NS.2)







Standard identifier

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## Great Example of Video Support - Family Resource Pages

Does your 3rd grader understand what division means? - Milestones from GreatSchools



Can your 3rd grader do word problems like this? - Milestones from GreatSchools



## DEVELOPING COMPUTATIONAL FLUENCY BROCHURES



grade1\_fluency\_brochure(1)-5-1-1.pdf



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