



Curriculum Information  
Mr. Huyck's Fourth-Grade



Dear Parents/guardians,

Welcome to fourth-grade. I trust you will find the following overview of curriculum information to be helpful as we enter this exciting and productive time in your fourth grader's educational journey.

-Mr. Huyck

**Mathematics (Everyday Mathematics):** Our mathematics curriculum is Everyday Mathematics (EM). We have been using EM since 1998. For about 10 years we've been using the updated Common Core State Standards (CCSS) edition.

EM provides excellent structure and covers a wide variety of concepts, providing teachers and students a variety of stimulating & productive activities. Much reasoning and deeper levels of thinking take place. EM also provides flexibility and support to help challenge and redirect lessons if your child needs a little extra challenge, or maybe feels a little too challenged. We also play engaging games that help us learn in interesting ways. Below are some more descriptions of Everyday Math.

**Everyday Mathematics in the Classroom**



**Background**

- Developed by the University of Chicago School Mathematics Project
- Based on decades of research about how children learn and develop mathematical power
- Provides the broad mathematical background needed in the 21st century
- Succeeded for over 30 years in helping children all over the world develop mastery of mathematics

**In Everyday Mathematics you can expect to see...**

- ...a problem-solving approach based on everyday situations;
- ...an instructional approach that revisits concepts regularly;
- ...frequent practice of basic skills, often through games;
- ...lessons based on activities and discussion, not a textbook; and
- ...mathematical content that goes beyond basic arithmetic and is fully aligned with the Common Core State Standards.

Our mathematics curriculum is outcome-driven. Meaning that the teacher seeks to observe each student reach a level 3 (secure) on all outcomes. Some outcomes are more challenging than others. The goal for all students by the end of the school year is to be at the "3" level in all math outcomes.

Throughout the year we will also focus on learning the foundational multiplication & division facts, as needed for each student. Emphasis is placed upon using and naming effective strategies to help solve basic facts, working towards quick recall and memorization. The overall goal is to solve facts quickly (within one to three seconds), or, even better, to eventually memorize the facts. Knowing the basic facts quickly are essential in more efficiently solving more challenging and complex problems. Students use strategies as needed until memorization takes place.

## In class math is learned through:

- Activities
- Games
- Facts lessons, discussion, and practice (with partners, small groups, and via homework expectations)
- Whole group and small group instruction
- Hands-on learning using a variety of tools
- Integration of mathematics through other subject areas, and support from other, supplemental activity sheets
- Use of computer apps and activities: DreamBox (primarily), Everyday Math games (often), Prodigy (occasionally)

## **Content and Practices Emphasized in Grade 4**



### **Mathematical Content Emphasized in Grade 4**

In *Third, Fourth, and Fifth Grade Everyday Mathematics*, students learn and master procedures, concepts, and applications in all of these five Common Core State Standards content domains. The fourth-grade program emphasizes the following content.

#### **Operations and Algebraic Thinking**

Using the four operations with whole numbers to solve problems; gaining familiarity with factors and multiples; generating and analyzing patterns

#### **Number and Operations in Base Ten**

Generalizing place-value understanding for multidigit whole numbers; using place-value understanding and properties of operations to perform multidigit arithmetic; understanding and developing fluency with multidigit multiplication; understanding of dividing to find quotients involving multidigit dividends

#### **Number and Operations—Fractions**

Extending understanding of fraction equivalence and ordering; building fractions from unit fractions by applying and extending previous understandings of operations on whole numbers; understanding addition and subtraction of fractions with like denominators; understanding multiplication of fractions by whole numbers; understanding decimal notation for fractions; comparing decimal fractions

#### **Measurement and Data**

Solving problems involving measurement and conversion of measurements from a larger unit to a smaller unit; representing and interpreting data; understanding concepts of angle; measuring angles

#### **Geometry**

Drawing and identifying lines and angles; understanding that geometric figures can be analyzed and classified based on their properties; classifying shapes by properties of their lines and angles

### **Mathematical Practices Emphasized in Grade 4**

Students also develop the following Common Core State Standards mathematical practices as they learn the fourth-grade content. Students begin developing these processes and habits of mind in *Kindergarten Everyday Mathematics* and continue to approach mathematical content in these same eight ways with increasing proficiency through *Sixth Grade Everyday Mathematics*.

#### **Mathematical Practices**

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.

**Language Arts:** Language Arts encompasses reading, writing, speaking, and listening. Our Language Arts curriculum is also an outcome-driven curriculum in that the teacher seeks to observe each student reach a level 3 on all outcomes. Please always keep in mind that children learn differently, and at different paces, thus they will reach the goals or outcomes at different times.

The teaching and learning of Language Arts is accomplished through a variety of forms and evaluated and recorded through a variety of assessments. Since children's learning needs vary, the strategies used will vary as well, thus requiring a balanced approach.

**Reading:** Our reading curriculum involves developing reading strategies/activities and, among other activities, it is a time when flexible & strategic groupings take place. Children are guided in their reading and the groupings are flexible. The groupings can be formed in a variety of ways and for various purposes. They can be connected to performance, abilities, or various needs derived from observations and assessments. Teachers can work with students in ways that keeps their levels and needs in mind. The groups are flexible so that children can move to different groups as they grow and develop, or as particular skills dictate. For example, the teacher might form a group around teaching the skills of visualizing, comprehension, or feeling empathy for a character.

Other parts of our reading instruction involve Independent Reading (I.R.), reading responses, large group and small group lessons (such as Interactive read aloud), sharing through small groups, and Book Talks. A big focus is placed upon learning about and reading from a variety of genres, primarily nonfiction.

Oral reading and modeling of books (read alouds) by the teacher and shared reading will be utilized as well. This will take place both for fun and as a learning tool.

Much reading also takes place through all of our subject areas. For example, we often learn about our various math concepts and skills by reading about them in our *Student Reference Books* (The SRB is a wonderful resource).

Here are the reading units for the year:

- Start-Up/Launching Strong Reading Habits (involves a review of independent reading, genres, choosing “just right” texts to read, reading goals, etc.)
- Analyzing Characters
- Informational Reading
- Informational Research

**Writing:** Our writing involves guided and independent writing and process writing (learning about prewriting, drafting, revising, editing, sharing, and publishing). Almost daily we are involved in a “Writer’s Choice” or I.W. (Independent Writing).

Here are the writing units for the year:

- Start-Up (learning about Independent Writing & how to choose a topic & genre to write about, reviewing basic skills, establishing goals, etc.)
- Launching with Realistic Fiction Stories
- Persuasive Writing
- Literary Nonfiction-Personal Expertise
- Informational Research

**Word Study/Spelling:** We will study words in a variety of ways this year. We will study vocabulary words, learn about root/base words, syllables, common word patterns, and much more. We use a curriculum called *Morpheme Magic*.

The concept of spelling is communicated as one of several tools that allows us to more effectively communicate through our writings and to help the messages of our writings be clearer to others. We want our readers to understand and gain meaning from our written word.

**Science:** We use the *Phenomenal Science* curriculum for our units of study. We have two units that take place within Project Lead the Way (PLTW). In PLTW, Mr. Tomsik will help us learn about coding/programming, and energy.

**Strategies used:**

- Whole and small group instruction and activities
- Hands-on learning
- Integration of science throughout the curriculum

Here are the science units for the year:

- Energy Exploration & Coding (PLTW)
- Built For Survival
- Surf's Up
- Big Blue Marble

**Social Studies:** We have several units. Here are the social studies units for the year:

- U.S. in Spatial Terms
- Human Geography
- Exploring Economics
- Government & Rights & Responsibilities of Citizens

**Social & Emotional Learning (SEL) & Health:** We seek to work on social and behavioral skills/character building. Here are the SEL & Health units for the year:

- Safety
- Alcohol, Tobacco, & Other Drugs
- Nutrition and Physical Activity
- Social and Emotional Health
- Personal Health and Wellness