



# Pythagoras Children's Academy

## 2nd Grade Curriculum Guide

### Math

**Program:** Everyday Mathematics by McGraw Hill

Everyday Mathematics is a comprehensive PreK through Grade 6 mathematics program engineered for Common Core State Standards. Developed by The University of Chicago, School Mathematics Project, Everyday Mathematics helps your students achieve true mastery of the CCSS by continually reinforcing math concepts through concrete real-world applications and reinforces math concepts across carefully constructed learning progressions. It is a different way of thinking; much different than we learned growing up. It teaches students how to think more logically and taps into higher level thinking skills. It helps students understand place value and how and what the math concepts mean. Students use math journals for practice work and play math games which reinforce math skills in a fun and engaging way.

**EM is aligned with Common Core Standards and teaches various algorithms and math concepts:**

- Addition/Subtraction: add and subtract within 20; use addition to find the total number of objects arranged in arrays; add up to four two-digit numbers; mentally add/subtract 10 or 100 to a given number
- Place Value: - hundreds, tens, ones; comparing two three-digit numbers based on place value
- Counting: count within 1,000 by 5s, 10s, and 100s
- Money: solve word problems involving dollar bills, quarters, dimes, nickels, and pennies; add coins and bills together
- Time: tell and write time from analog and digital clocks
- Geometry: recognize and draw shapes (2D and 3D); - identify faces, edges, vertices; symmetry, line Segments
- Patterns and Rules
- Fractions
- Measurements: measure the length of an objects using rulers, yardsticks, and measure tapes; estimate lengths of units in inches, feet, centimeters, and meters

## ELA (English, Language Arts)/Reading/Writing

**Program:** Schoolwide Fundamentals

Schoolwide's Fundamentals Units of Study are designed to meet the instructional needs of literacy educators, with a particular focus on usability and effectiveness. Built using the workshop model, Schoolwide's units teach students to be critical thinkers, readers, and writers by using proven, research-based best practices for reading and writing instruction.

**The units of study include:**

- Launching Unit which prepares the students for the year's lessons and format
- Nonfiction
- Fiction
- Poetry
- Content Literacy, which include: Communities: Urban, Suburban, Rural, Characteristics of Good Citizenship, Patterns in the Natural World, and Earth's Systems: Processes That Shape the Earth

**Daily 5/ Cafe framework is used throughout our literacy block:**

Read to someone; read to self; listen to reading; word work; work on writing.

**Second graders work on the following topics/skills:**

- Nouns: irregular plural, pronouns, collective
- Verbs: irregular plural, adverbs
- Adjectives
- Sentences: subject, verb, capitalization, punctuation; proper comma usage
- Contractions
- Distinguish long and short vowels when reading
- Describe how characters in a story react to important events
- Decode words with common prefixes and suffixes
- Recognize and read grade-appropriate irregularly spelled words
- Ask and answer questions such as who, what, where, when, why, and how
- Identify the main topic of a multi-paragraph text
- Know and use various text features (captions, bold print, subheadings, glossaries, etc.
- Describe how characters in a story respond to major events and challenges
- Describe the overall structure of a story including the beginning, middle, and end
- Compare and contrast two or more versions of the same story
- Ask and answer questions about what a speaker says in order to clarify comprehension
- Use diagrams and pictures to help understand nonfiction text

## Science

### **Topics of study include:**

- Safety: fire; science
- People grow and change: compare how people are alike and different at different stages of life; identify and describe the main function of major body parts; know the benefits of exercise and nutrition
- Animals grow and change: identify features to classify animals; describe the life cycle of an animal; describe how living things depend on each other for survival
- Plants grow and change: determine how plants are alike and different; identify and compare living and non-living things; observe changes in plants; describe how growth is affected by the environment; identify what a plants needs to grow
- Matter: identify 3 forms of matter; identify the properties of solid, liquids, and gases; describe how matter changes form; identify ways to measure matter
- Space: become familiar with major constellations; know the names and order of the planets; compare night and day
- Weather: identify and describe the 4 seasons, and tell how the weather changes with each season; describe why seasons change; describe the water cycle; use a thermometer; observe various kinds of clouds

## Social Studies

### **Topics of study include:**

- Governing the people: identify the different levels of government; understand election processes and responsibility of citizens
- The world around us: map and globe skills
- Using our resources: land and water resources; connecting communities
- People long ago: people and places change; early America; Independence; Heroes and Holidays
- A world of many people: world cultures; celebrating culture; recognizing Americans
- People in the marketplace: producers and consumers; work and income; barter and trade

## Technology

### **Concepts and resources:**

- Keyboarding: use correct fingers when typing; produce and publish a 1/2 page writing piece using keyboarding skills
- Google Docs: create and rename a document
- IXL for math
- Xtramath.org for math
- Spelling City