

FOURTH GRADE  
Curriculum Snapshot

**General Course / Grade Level Description**

Students in 4th grade experience a balance of literature and informational texts in the context of instruction designed to create opportunities for children to engage with a variety of topics and texts, and have discussions about texts that support language development and knowledge building.

In Science, the approach is hands-on scientific inquiry.

Our Math is focused on three main areas: developing an understanding and fluency of multidigit numbers in the four operations; an understanding of fractional equivalents as well as adding, subtracting and multiplying of fractions by whole numbers; understanding geometric figures can be analyzed and classified based on their properties.

**English Language Arts**

Reading and Writing:

- Native Americans of New York
- Colonial America
- American Revolution
- Leaders of change

Spelling:

- Use conventional spelling for high-frequency and other studied words, and to add suffixes to base words .
- Use spelling patterns, rules, and generalizations in writing words.
- Spell grade-appropriate words correctly, consulting references as needed.

Grammar:

Demonstrate command of academic English grammar and usage when writing or speaking.

**Guiding Resource: Expeditionary Learning Modules, Houghton Mifflin Spelling and Vocabulary**

**Math**

In 4th grade math the students focus on all four operations- addition, subtraction, multiplication and division- to solve multi-step word problems involving multi-digit numbers. Students extend their understanding of fractions, including equivalent and ordering.

The units include:

- **Place Value, Rounding, and Algorithms for Addition and Subtraction**
- **Unit Conversions and Problem Solving with Metric Measurement**
- **Multi-Digit Multiplication and Division**
- **Angle Measure and Plane Figures**
- **Fraction Equivalence, Ordering, and Operations**
- **Decimal Fractions**
- **Exploring Measurement with Multiplication**

**Guiding Resource: Eureka Math Modules**

**Science**

- **Riding the Waves of Information**-Students will learn about waves and the properties of amplitude, wavelength, and energy.
- **Powering Thru the Fair**- Students will apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

- Earth Processes in New York State-The main ideas in this unit are: rock formations and fossils are evidence of changes in a landscape over time; the effects of weathering and erosion can be observed and measured; the analysis of maps can describe patterns of Earth's features; and that various solutions can be generated that reduce the impacts of natural Earth processes on humans.
- A Walk in the Park- The students will learn how the internal and external structures of plants function to support growth and reproduction.They will also learn how animals use their senses to take information from their surroundings and process this information. Students realize that animals, like plants, also survive by the interaction between their internal and external structures.

**Guiding Resource: Elementary Science Program, Next Generation Science Standards**

### **Social Studies**

**Grade 4 Social Studies is focused on New York State and local communities and their change over time, incorporating the study of geography, history, economics, and government.**

- GEOGRAPHY OF NEW YORK STATE
- NATIVE AMERICAN\* GROUPS AND THE ENVIRONMENT: Native American groups, chiefly the Haudenosaunee (Iroquois) and Algonquian-speaking groups, inhabited the region that became New York State. These people interacted with the environment and developed unique cultures.
- COLONIAL AND REVOLUTIONARY PERIOD IN NEW YORK
- GOVERNMENT: There are different levels of government within the United States and New York State. The purpose of government is to protect the rights of citizens and to promote the common good. The government of New York State establishes rights, freedoms, and responsibilities for its citizens.
- IN SEARCH OF FREEDOM AND A CALL FOR CHANGE: Different groups of people did not have equal rights and freedoms. People worked to bring about change. The struggle for rights and freedoms was one factor in the division of the United States that resulted in the Civil War.
- WESTWARD MOVEMENT AND INDUSTRIALIZATION: New York State played an important role in the growth of the United States. During the 1800s, people traveled west looking for opportunities. Economic activities in New York State are varied and have changed over time, with improvements in transportation and technology.
- IMMIGRATION AND MIGRATION FROM THE EARLY 1800S TO THE PRESENT: Many people have immigrated and migrated to New York State contributing to its cultural growth and development.

**Guiding Resource: Expeditionary Learning modules, New York Adventures in Time and Place**

### **Art**

*The 4th grade art curriculum focuses on higher-level art materials and concepts as well as a continued study of historical styles, modern*

### **Library**

The Fourth Grade Library program includes several options for selecting and borrowing materials.

*artists, elements of art and art skills.*

Units Include:

- Personal Portfolio Folder
- Whimsical Calacas
- Illuminated Letters
- Color Theory Weaving\*
- Value, Shading, & Blending
- Movement Coil Pots
- Pop Art

\*Aligns with the 4th grade classroom curriculum

Students are encouraged to access the online catalog, databases and SORA for a variety of independent reading materials and classroom support. Coding and robotics is part of the library program.

Lessons and activities include:

1. Library Arrangement of Fiction and nonfiction books.
2. Online and offline coding activities to develop sequencing, pattern recognition and computational awareness. Dash robot lessons incorporate a variety of these skills.
3. Access of the Online catalog and SORA for independent reading selections
4. Review of Online databases with activities to strengthen understanding of navigation, features and highlights of various databases.
5. Text features of print and nonprint materials.
6. Visiting author study with exploration of books, themes and purpose.
7. STEAM activities and centers to develop coding skills, cooperation, engineering and creativity.

**Physical Education**

Physical Education provides cognitive content and instruction designed to develop motor skills, knowledge, and behaviors for physical activity and physical fitness.

The curriculum for grades 3-5 share similar units and lessons. Lessons are modified for students to be successful at all different levels (more basic skills and concepts for 3rd grade, higher level for 5th grade).

**Key Units**

- Football
- SNAG Golf
- Disc Golf
- Soccer
- Volleyball
- Floor Hockey
- Cooperative Games
- Handball
- Basketball
- Bowling
- Backyard Games
- WiffleBall

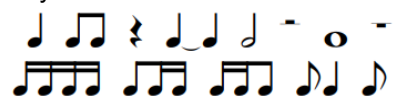
**Music**

**Pitch Elements of Music**

- Sing, read, and write these notes:  
So, La, Ti, Do Re Mi Fa So La Ti Do' and  
CDEFGABC'

**Beat and Rhythm Elements of Music**

- Beats in groups of 2, 3, 4
- Conduct music in  $\frac{2}{4}$   $\frac{3}{4}$   $\frac{4}{4}$
- Rhythms:



**Timbre Elements of Music**

- Identify and classify classroom and orchestral instruments.
- Identify and play all classroom instruments including Ukulele

**Form Elements of Music**

- Repeat signs, 1st and 2nd endings, Coda, DS, DC, Fine
- ABA, AABA, Verse Refrain, Theme and Variations
- Use and create rhythmic and melodic ostinato



### **Expression Elements of Music**

- Pp, p, mp, mf, f, ff
- Crescendo, decrescendo
- Largo, Adagio, Andante, Moderato, Allegro, Presto, Prestissimo, Fermata
- Staccato, Legato, Accent

### **Create**

- Rhythm patterns, melodies, new verses, sound effects and accompaniments for songs.

### **Perform**

- Sing, move, and play classroom instruments
- Good concert etiquette

### **Respond**

- How music makes you feel

### **Connect**

- Information about music
- Composer of the month

## **STEAM**

STEAM Education will promote exploration, problem solving, critical thinking and creativity through experiential learning lessons in science, technology, engineering, art, and mathematics.

Introduction of the concept of STEAM by defining Science, Technology, Engineering, Art, and Math.

The topics/standards below will be integrated into units of study throughout the academic year.

Science: Earth's processes, energy, animal survival, types of waves and uses.

Technology: Impacts of computing, Intro to programming, use of digital tools.

Engineering: Design and develop models, compare solutions to design problems.

## **Social Emotional Learning**

Developing Skills for Social and Academic Success:

- Skills for Learning
  - Becoming an engaged learner: Focus Attention, Listen, Use Self-Talk, Be Assertive.
- Empathy & Emotions
  - Identifying & understanding our own and others' emotions.
- Emotion Management
  - Learning and practicing respectful ways to calm down.
- Problem Solving
  - Saying the problem without blame. Thinking of safe and respectful solutions.
- Bullying Prevention & Child Safety
  - Learning and using the 3 R's: Recognize, Refuse, Report.

Following lessons, students will bring home a *Home Link* handout for families to do together. This helps families to know about the skills taught during the lesson and reinforces skill development through at-home practice. Return the *Home Link* to school once the student and family have completed the activities together. You can also contact the school counselor for a link to your child's Second Step grade-level resources.

### **Guiding Resources:**

- [www.SecondStep.org](http://www.SecondStep.org) and <https://www.cfchildren.org/>
- <https://www.p12.nysed.gov/sss/documents/NYSSELBenchmarks.pdf>
- <http://www.nysed.gov/curriculum-instruction/erins-law>



*The Caledonia - Mumford Central School District utilizes NYS Standards to guide and assess instruction. For more information visit <http://www.nysed.gov/curriculum-instruction> .*