

## Lower School Course Outline

### 4<sup>th</sup> Grade

#### Subject: Language Arts



#### Introduction:

The fourth grade language arts program builds enthusiasm for reading by emphasizing literature-based reading, teacher read-alouds, and cross-curricular work. The goal is to encourage students to become confident, well-prepared speakers and writers, and attentive, respectful listeners.

#### Content:

##### Reading:

The reading program teaches reading comprehension strategies directly through read-aloud lessons, guided practice of the strategies, and their application in independent daily reading. These strategies include visualizing, wondering/questioning, making inferences, determining the important ideas, understanding text structure, summarizing, and synthesizing. The students read and discuss literature of a variety of genres that is selected by students and teachers. Context-based vocabulary words are studied to further increase their understanding of the text.

##### Writing:

Students learn common language to discuss good writing and practice skills using the 6+1 traits of writing. They are formally introduced to the writing process and repeatedly participate in the cycle of prewriting, drafting, revising, proofreading, and publishing. Read-alouds expose students to exemplar writing while stimulating their imaginations and sparking their motivation. Daily exercises teach and reinforce grammar, usage, punctuation, capitalization and spelling skills. A word study program analyzes each student's developmental spelling level and tailors instruction for spelling features which includes base word and affix analysis.

##### Research:

Students develop research skills, beginning with the evaluating the accuracy and validity of nonfiction text. They are expected to refine search queries to get better results, identify and synthesize important ideas, and present these ideas in their own words. They learn the skills of taking notes, summarizing, restating and organizing material.

#### Materials:

*Making Meaning* curriculum, *Being a Writer* curriculum, trade books, dictionaries, thesauri, *Word Journeys* spelling lists, reference and journaling materials comprise the list of materials.

#### Evaluation:

Formal and informal assessment tools include teacher observation, student projects and journals, and checklist assessment. Formal reading evaluations are completed twice a year.

## **Lower School Course Outline**

### **4<sup>th</sup> Grade**

#### **Subject: Math**

##### **Introduction:**

The fourth grade math curriculum is based on the *Everyday Math* Program and reinforces concepts and computational skills learned in the previous grades. Group work is emphasized as well as individual exploration, development, and mastery. The curriculum promotes critical thinking and builds respect for the wide variety of successful strategies employed by students.

##### **Content:**

###### **Numeration:**

The students learn place value through millions and decimals to hundredths. They also learn to compare, add, and subtract decimals, fractions, and percents.

###### **Operations and Computation:**

Various algorithms and mental strategies are used as students master basic number facts and gain proficiency with 2-and 3-digit computation in the four basic operations.

###### **Data and Chance:**

Students learn to read and create graphs and their landmarks, and to understand and use probability and prediction.

###### **Geometry:**

The students learn to identify, draw, compare, and analyze lines, angles, and 2-and 3-dimensional figures.

###### **Measurement:**

Students learn to use tools and take measurements of length, area, volume, weight, temperature, and time. They also learn to use correct unit labels, use unit conversion, and calculate map distances and elapsed time.

###### **Patterns, Functions and Algebra:**

Students learn to create, extend, and describe number patterns. They also use patterns to generate, strategize, and solve story problems, using estimation and mental math, as well as written number models.

##### **Materials:**

*Everyday Math* student journals, Student Reference Book, Study Links, tool kits, and other math manipulatives as needed comprise the list of materials.

##### **Evaluation:**

Formal and informal assessment tools include teacher observation, daily journal work, student self-assessment, and periodic progress checks in the *Everyday Math* program.

## **Lower School Course Outline**

### **4<sup>th</sup> Grade**

#### **Subject: Social Studies**

##### **Introduction:**

The fourth grade social studies curriculum is an intense study of New Jersey and its relationship to a larger country and planet. The essential goal is for students to understand and recognize their physical place in the world and to understand how geography has influenced history.

##### **Content:**

###### **New Jersey Geography**

The students use map skills to explore various aspects of New Jersey, including the counties, rivers, topography, climate, agriculture, and population density.

###### **New Jersey History**

Students learn about New Jersey's earliest inhabitants by examining artifacts and by looking at excerpts of journals written by European settlers and explorers. The role of early Quaker settlers in the Delaware Valley is examined. Students study immigration to the United States and the immigration procedure through Ellis Island.

###### **Civil Rights**

Students learn about the fundamental freedoms guaranteed in the United States Constitution and in the Quaker testimony of equality. After a review of slavery in North America, students examine the role of Quakers in the Underground Railroad and learn its route through New Jersey. Students learn about the fight for women's right to vote by studying the life of Alice Paul, a Quaker suffragette from New Jersey.

###### **Project PORTS**

With the Delaware River watershed as a central focus, the students participate in Rutgers University's Project PORTS program. This cross-curricular program focuses on the importance of the oyster populations in the Delaware Bay ecosystem. Students learn about the history of the oyster industry and its impact upon New Jersey's economy in the 1800's.

##### **Materials:**

*New Jersey* (Silver Burdett Ginn), *Project PORTS* curriculum guides, historical literature, various maps, and artifacts comprise the list of materials.

##### **Evaluation:**

Evaluation is made through unit assessment, class participation, teacher observation, and student project work.

## **Lower School Course Outline**

### **4<sup>th</sup> Grade**

#### **Subject: Science**

##### **Introduction:**

Fourth grade science students study a variety of topics, with emphasis on hands-on activities and beginning lab techniques. The goal is to encourage students to be organized, communicative, and curious as they explore elements of the natural and manmade world.

##### **Content:**

###### **Life Science:**

The students learn about plants, their structure, and the processes of reproduction and photosynthesis. They also study animal structure and adaptations. They are introduced to concepts of ecology.

###### **Earth Science:**

Students study the solar system, including planets, asteroids, and comets. They also learn specifically about the Earth's origins and the earth's crust during our study of minerals, rocks, and fossils.

###### **Physical Science:**

Fourth graders study light and color, sound and hearing, and magnets and electricity.

###### **Technology:**

Students study force and motion through the construction and operation of simple machines.

###### **History of Science:**

Students learn about the study of science through time as well as scientists who have made significant contributions to what we now know about the world around us.

###### **Health Science:**

To promote healthy lifestyles, analyze nutritional information, and review the benefits and dangers of legal drugs.

##### **Materials:**

*Science (Scott Foresman)*, laboratory equipment, and demonstration objects comprise the list of materials.

##### **Evaluation:**

Unit assessment, lab work, class participation and teacher observation form the basis for the students' grades.