

## Mathematics

The Everyday Mathematics program is a standards based program that is designed to spiral through the grade levels. Each year, concepts build on the knowledge gained the previous year. At the beginning of each math unit, a letter will be sent home describing the concepts about to be covered, as well as information that will help you to assist your child with homework. The program also comes with a Students Reference Book that provides parents and students with background information on each concept being taught in class. A wide variety of mathematical tools and materials are used such as, compasses, protractors, pattern blocks, base ten blocks, and geoboards.

### Fourth Grade Everyday Mathematics Units :

1. Naming and Constructing Geometric Figures
2. Using Numbers and Organizing Data (Place Value to Millions, Data Landmarks, and Addition & Subtraction Strategies)
3. Multiplication and Division; Number Sentences In Algebra
4. Decimals and Their Uses
5. Big Numbers, Estimation, and Computation (Place Value to Billions, Multiplying Double Digit Numbers)
6. Division; Map Reference Frames; Measures of Angles
7. Fractions
8. Perimeter and Area
9. Percents
10. Reflections and Symmetry
11. 3-D Shapes, Weight, Volume, and Capacity
12. Rates

The program also includes many games that are introduced to help students to master basic facts such as multiplication and division. The games are not only fun, but are important learning tools. Mastering of basic multiplication facts lays that foundation for more complex mathematics such as dividing larger numbers. **Mastery of basic facts is a priority this year! We will do regular timed practice drills, and any extra practice at home is greatly beneficial!**

## Science

In Fourth Grade Science, we use two modules from the Insights Hands on Inquiry Science Curriculum. Each of the Insights modules contain 12 to 20 hands on inquiry activities in which students are guided to explore new concepts using concrete materials. Students will develop observation skills, learn questioning techniques for science inquiry, and learn how to collect and record data. Computer technology is integrated as appropriate, for example, using websites that allow students to explore circuits, or to reconstruct a skeleton from an owl pellet. Our third unit of study, Plants and Ecology, is designed to make students aware of the important interaction between the plants and animals (including people) of the Earth.

### Units of Study

#### 1. Bones and Skeletons:

In this module, students will be given a mysterious gray object, an owl pellet. They will examine it and find many small bones inside. Learning experiences that explore human bone groups, teeth and joints, as well as the skeleton of the other animals help students understand bone structure and its relationship to function.

#### 2. Circuits and Pathways:

In this module, students will develop a basis for understanding electricity by exploring its properties in simple circuits. They use batteries, wire, bulbs, and motors to explore the concept of a complete circuit in a variety of ways.

#### 3. Plants and Ecology:

In this unit, students will learn characteristics of ecosystems on the Earth, and how human actions modify the physical environment. They will observe nature. Students will demonstrate an increasing ability to understand how environmental factors affect all living things.

## Social Studies

Social Studies is a major focus of the fourth grade curriculum. Fourth graders learn about the geography and history of the state of New Hampshire. During the year, children will be researching various aspects of life in New Hampshire, taking field trips to important landmarks, such as Strawberry Banke, Great Bay Discovery Center, and the UNH Dairy Farm. And writing about what they learn. They will also learn to use appropriate websites to gather facts about New Hampshire.

Students will be learning about government. They'll explore the roles of the three branches of government and discover how our Constitution works to protect people. Our class will visit the New Hampshire State House to see where our state's government meets and learn how laws are made.

During the year, there will be a variety of projects assigned that will enhance student learning. Some assignments may vary from class to class, however, subject matter is consistent across the grade level.

## Reading

Fourth Grade Reading involves the many components of Learning to Read by Reading. These components include guided reading, independent reading, reading conferences, small group instruction, group shares and interactive read aloud, as well as whole class focus lessons on particular reading skills and strategies. Students then practice these skills and strategies in their independent reading. Our goal in the Fourth Grade is for students to learn to see themselves as readers and to promote habits that will support children in becoming lifelong readers. Students will learn to think as readers and to develop the habits that promote understanding of text. Students will develop skills in making predictions, connections to text, inferring, synthesizing, analyzing, and critiquing literature. Students will be able to demonstrate comprehension using common terminology during group share, individual conferences and in writing.

Fourth Graders will be learning to read a variety of text and genres. Students will learn the features of different genres and will participate in focus lessons specific to the skills that are outlined in the attached year long trajectory.

## Materials:

Trade books ( both fiction and non-fiction)  
Reading titles will vary  
Biographies  
Poetry  
Weekly Reader Magazine  
Selections from the Harcourt Brace Reading Series  
Selections from Science and Social Studies texts  
Dictionaries and other Reference Books  
Various Magazine or Newspaper Articles

## Writing

In the Fourth Grade, all students are expected to express themselves in writing. Sentences and paragraphs are used in all content areas. Students are expected to write for social studies, science, math, as well as reading and writing. For longer pieces of writing, various graphic organizers are used to help students plan their writing. Teacher and student created rubrics are used to assess written work, and students will be creating portfolios of their best work.

This year, we are extending the Learning to Read by Reading model into Writer's Workshop. Students will see themselves as writers, as they study mentor texts of various writers to discover a variety of techniques that writers use, and have the opportunity to try them in their own writing. We will study the works of many different authors in a variety of genre to identify the qualities of good writing, and then revise and edit our pieces. Personal narrative writing on topics that the student deeply cares about will be emphasized. As in Reader's Workshop, we will have daily whole class focus lessons, small group work, individual conferences, and sharing our work with our community of writers. During the year, we will also practice writing for different purposes:

- Procedural (How to) paragraphs
  - Descriptive paragraphs
  - Persuasive paragraphs
- Expository (creative story) paragraphs
  - Comparing & Contrasting paragraphs
    - Poetry forms

## Vocabulary Development & Spelling

In Fourth Grade, we focus on the correct spelling of high frequency words in all of our written work. Rather than just studying a weekly list of words for a Friday test, instruction focuses on important components in all writing. Proofreading and developing visual skills are important components of the program. Assessment comes in many forms: cloze tests, skills tests, sentence dictation, and skill-based activities. All skills and concepts are recycled in later units, so that all learners can master them over time. Students who have already mastered high frequency words will learn the spellings of new words important to their own writing or from other content areas. We are eager to make every child a speller!

This year, our school is implementing a program called Wordly Wise, to enhance vocabulary development. Students will learn the meanings of several new words each week, to aid their comprehension when they encounter these words in their reading. In addition, students are expected to use the new words in conversation and in their writing. We practice many word skills each week in this program, including synonyms & antonyms, correctly using words with multiple meanings, homonyms, meanings of prefixes, suffixes, and roots, and using word forms correctly,

## Homework Expectations

Homework is a necessary part of the student's learning process. Homework is assigned in order to give students additional practice and to reinforce skills taught at school. Fourth Grade students will be assigned homework each Monday through Thursday. Occasionally, students will be assigned an at home project that may require some weekend work. When a project is assigned, a letter explaining the particulars will come home. Students are expected to write each assignment in their assignment book and to bring home the necessary materials to complete the work. After the homework has been completed, we ask that a parent or guardian sign the assignment book. All homework should be able to be completed within an hour of concentrated effort. If your child is having difficulty completing the assignment, it is helpful if you let us know. Please feel free to use the assignment book for communication.

## Grading

Grades can be written in a variety of ways. Your child may receive a corrected paper with a percent score, a fraction, a check or a letter grade. Here is what it means:

### Percents:

97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	F

### Checks:

/++ = A+
/+ = A
/= B
/- = C
/-- = D

### Fractions:

The numerator gives the number of problems your child answered correctly, & the denominator gives the total number of problems on the assignment.

(Example: 17/20 means that the student answered 17 problems correct out of 20).