

Pine Point School

5th Grade Curricula 2009-10

Language Arts

The reading curriculum in fifth grade emphasizes reading to learn rather than learning to read. Students learn to view reading as both a form of enjoyment and as a tool to access, understand and impact their world. Reading instruction progresses from simply focusing on the literal meaning of a text towards developing a greater understanding of the implied meanings in a text. Through the use of trade books, the students are introduced to thematic and literary genres. The majority of the students have mastered phonics and decoding, though these skills are still addressed on an as needed basis. Along with comprehension, the program incorporates word attack skills and vocabulary development. Daily assignments are completed using comprehension skills at all levels.

Content

- 1) Skills and concepts: genre, literary devices (plot, characterization, turning point, resolution, theme, tone, point of view, setting, figurative language, symbolism), literal and inferential comprehension, evaluation and analysis of text, compare and contrast.
- 2) Vocabulary: word types, context, structural analysis, phonics, dictionary and thesaurus use
- 3) Modes: silent, independent, oral
- 4) Direct reading instruction
- 5) Monthly book reviews/reports

WRITING

The fifth grade writing program incorporates a process oriented approach to teaching students to write effectively. Students write both in the expository and narrative modes and writing is emphasized across the curriculum. Specific grammar and mechanics skills are taught so that students learn to communicate concisely and clearly. They learn to break the writing process down into its component parts: prewriting, drafting, editing and revising. In addition to working individually on their writing, students are taught to work with their peers during each phase of the process.

Content

- 1) Grammar/syntax: parts of speech, sentences, paragraphs, capitalization, usage, punctuation, spelling
- 2) Written expression: prewriting, drafting, editing, revising
- 3) Handwriting: emphasis on correct letter formation in cursive and print, legibility
- 4) Technology: keyboarding, word processing, multi-media

LANGUAGE ARTS (GENERAL)

In addition to the above mentioned reading and writing skills, the language arts curriculum also incorporates study skills and speaking and listening skills. Both areas require students to be competent readers and communicators, skills which are taught in reading and writing. The study skills taught enable students to manage their time wisely and to complete all types of work successfully. The speaking and listening components teach them to communicate clearly and effectively and to listen purposefully and thoughtfully.

Content

- 1) Study skills: organization and time management, use of the assignment book, test taking, reading strategies, note taking, use of glossary and index, drawing conclusions, using resources to locate information
- 2) Speaking and listening skills: morning meeting, class meeting, oral presentations, oral reading, using appropriate pace, volume and diction, distinguishing between fact and opinion, maintaining eye contact

Assessment Procedures

- 1) Writing samples (expository, narrative, responses to reading, weekly recordings)
- 2) Oral presentation of book reviews/reports
- 3) Homework
- 4) Group participation
- 5) Visual/artistic presentations of projects
- 6) Portfolio
- 7) Oral reading for fluency and expression
- 8) DIBELS (reading fluency screening)
- 9) Gates-MacGinitie reading tests

Texts

- 1) *Writer's Express*, Write Source, 2000
- 2) *Daily Oral Language*, McDougal Littell, 2000
- 3) *Daily Oral Analogies*, McDougal Littell, 2000

Mathematics

The fifth grade mathematics program helps to develop proficiency in the basic mathematical skills and concepts as outlined in the NCTM Standards. The emphasis in fifth grade is on a continued mastery of multiplication and division facts, two-digit multiplication, division, fractions, and decimals. We also place great emphasis on the application of mathematical concepts and skills to real world situations and problems. Our students also build upon their knowledge of geometry, measurement, and graphing. Besides learning the skills, our curriculum also provides opportunities to make sense of

math, to learn an appreciation of its use in everyday life, and to see how it connects with other subjects. For example, since math is the language of science, we use numerous connections between the two subjects. Graphing, metric measurement, multiplication, division, mass, and volume are all routinely used as our students learn about science. Math is also tied into our Language Arts curriculum and numerous books are used to develop particular math concepts. For example, we introduce the concept of pi by reading the story *Sir Cumference and the Dragon of Pi*.

Homework assignments are an integral part of our math program in order for our students to build a sense of responsibility and accomplishment. Both the in class work as well as the homework should serve to increase our students' math skills as well as an awareness and appreciation of math in their everyday lives.

First Semester:

- A. Place Value and Number Sense- place value through a billion, comparing and ordering whole numbers and decimals, rounding whole numbers and decimals, estimation
- B. Addition and Subtraction of Whole Numbers and Decimals- comprehending the meaning of addition and subtraction, working with money and menus, applying estimation and mental strategies, solving two and three step word problems.
- C. Multiplying Whole Numbers and Decimals- exploring patterns with whole numbers and decimals, estimating word problems, place value, zeros place, multiplying by up to three digits.
- D. Dividing Whole Numbers and Decimals with one-digit divisors- knowing the meaning of division, checking the quotient using multiplication, estimating the quotient, solving word problems.

Second Semester:

- E. Dividing whole numbers by two-digit divisors- similar to one digit dividing while expanding the concept.
- F. Data, Graphs and Probability- putting data into graph form, reading bar and line graphs, using graphs in real situations, defining x and y axes, coordinates and labels, finding the range, mode, median, and mean, using Excel to input data and create graphs.
- G. Geometry- identifying 2-D and 3-D shapes, knowing the vocabulary of geometry, analyzing polygons, measuring angles, identifying point, diameter, and radius.
- H. Fractions and Mixed Numbers- adding and subtracting fractions and mixed numbers, understanding the vocabulary of numerator, denominator, proper and improper fractions, simplifying, recognizing equivalent fractions, using fractions for determining linear measurement.
- I. Measurement- length, weight/mass in both standard and metric forms, perimeter, area, capacity, circumference, diameter, radius, pi
- J. Ratio, Percent, Algebra

Student Assessment

- Class participation & Math Journal
- Daily homework exercises
- Tests and quizzes at the end of units

Resources and Materials

Main Text: *Scott Foresman, Addison Wesley Math*, 2005

Building Mathematical Skills: Skinny Concepts, vols. 1 & 2, Educators Publishing Service, 2005

About Teaching Mathematics, Math Solution Publications, 1992

Mad Minutes, Addison Wesley, 1985

Problem Solving Experiences in Mathematics, Addison Wesley, 1985

About Teaching Mathematics, Marilyn Burns, 2000

Understanding Division, Great Source, 1998

Using Geometry, Great Source, 1999

Using Fractions, Decimals, and Percents, Great Source, 1998

The King's Chessboard, David Birch, Scott Foresman, 1993

Sir Cumference and the First Round Table, Cindy Neuschwander, 1997

Sir Cumference and the Dragon of Pi, Cindy Neuschwander, 1999

Sir Cumference and the Great Knight of Angleland, Cindy Neuschwander, 2001

Geometry and Fractions with Tangrams, Learning Resources, 2005

Science

The fifth grade curriculum reflects the changes implemented by the science committee in 2008, following its extensive overhaul of the school's complete science curriculum. Our emphasis will be on teaching scientific concepts, as opposed to topics, that build naturally on knowledge attained in the previous years. Our main goal is to instill in the students an interest and curiosity about the world in which they live. Our preference is always for child-centered learning with the emphasis on hands-on activities. However, from the very beginning, we use the scientific method of questioning, hypothesizing, experimenting, gathering data, concluding, and reflecting. Students will have two periods of science every week with homework and regular "science challenges."

Course Outline

First Semester:

- A. The Science Notebook and the Process of Inquiry.
- B. Laboratory Skills: calculating volume and measurement, understanding metric conversions and the relationship between Fahrenheit and Celsius.
- C. Chemistry: solids, liquids, and gases, properties of matter, physical and chemical changes, suspensions, solutions, mixtures, acids and bases, pH, chromatography,

endothermic and exothermic reactions, periodic table of elements, and atomic model.

Second Semester

D. Astronomy: Solar System.

E. Physics: electricity, force and motion, friction and resistance, gravity, magnetism, momentum, pressure, push and pull, velocity, potential and kinetic energy.

Student Assessment:

- ~ Class participation and student notebook
- ~ Homework
- ~ Tests and quizzes
- ~ Science challenges
- ~ Research reports and presentations

Social Studies

The fifth grade social studies curriculum is comprised of three major units: United States geography and map skills, the colonization of North America and an early explorers study. In each unit, students acquire information through a variety of sources, evaluate that information and present it in a manner that reflects their understanding. When used in conjunction with problem solving techniques, the program exposes students to a body of knowledge and skills that will help them make informed decisions in matters relating to themselves, their communities, their country and the world. Further reinforcement of concepts and ideas is made in the reading program, where through historical fiction and non-fiction, ideas are explored and developed through reading, reflection, discussion and written work.

SKILLS

- 1) Communication skills: discussing, explaining, observing, reporting orally, listening, reading, writing, working cooperatively
- 2) Organizational skills: following directions, sequencing, classifying, planning and executing long term assignments
- 3) Problem solving skills: identifying problems, locating information, formulating solutions, evaluating solutions
- 4) Research skills: locating information, taking notes, summarizing, synthesizing, outlining, identifying different types of sources, documenting sources
- 5) Critical thinking skills: analyzing, comparing, evaluating evidence, hypothesizing, formulating questions, making inferences and judgments, drawing conclusions

CONTENT

- 1) Geography
 - a) Map skills

- b) Study of the United States
 - i) States and capitals
 - ii) Regions of the United States
 - iii) The 5 themes of geography
 - c) State Fair Project
- 2) Life One Hundred Years after the Revolution
 - a) Changes in one hundred years
 - b) Mystic, CT 1876
 - c) Seaport Apprenticeship program
 - 3) Explorers Study
 - a) Understanding the reasons for early exploration
 - b) Learning how they traveled and about challenges they faced
 - c) Research an early explorer
 - i) Integrated with reading – biography
 - ii) Presentation to the class – 1st person perspective

ASSESSMENTS

Students demonstrate their knowledge of concepts and key ideas through the following methods:

- 1) Research projects
- 2) Hands on activities
- 3) Mapping exercises
- 4) Journal writing, essays, and other written assignments
- 5) Class discussions and oral presentations
- 6) Observation and participation of students during class
- 7) Role playing and simulation activities
- 8) Tests and quizzes

RESOURCES AND MATERIALS

United States History, Houghton Mifflin, 2005

The New York Public Library Amazing United States Geography, Wiley and Sons, 2001

Cobblestone (history magazine for children)

Our Fifty States, National Geographic, 2004

Mighty Maps, Teaching and Learning Company, 1995

Geography of the United States: Teaching the Five Themes, McGraw Hill, 1997

Mystic Seaport library and collections website

French

The Lower School World Language Program emphasizes communication using familiar thematic units, cultural contexts and everyday social situations. We encourage active classroom participation through listening and speaking skills, in addition to writing and

memorization of vocabulary words. Many units are cross-curricular themes related to the core subjects taught in the home base classroom. Our goal is to have students gain knowledge about the linguistic and cultural differences, and be comfortable in either a Hispanic or Francophone environment.

Fifth Grade Themes

Review of Kindergarten, First, Second, Third & Fourth Grade topics

United States study

Mapping & Directions

Environment

Solar System

Places in a town

Professions

Spanish

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Fifth Grade Themes

Review of Kindergarten, First, Second, Third & Fourth Grade topics

States Project / Mapping & Directions

Places in a town

Professions

Music

The Fifth grade will be encouraged to reach a confident level of music reading and an ability to read and write using staff notation. We will also be working on pitch recognition and sight-singing. There will be more singing this year which will involve the students working as a team learning to develop their part-singing skills as well as introduce them to many different styles of choral music. The class will continue to explore all aspects of music history, music theory (form, harmony, notation, etc.), composers and styles. The class will use the curriculum *Music Express* to support the weekly lessons. We will consider projects, field trips, guest speakers, etc.

Fifth grade students will participate in handchime ensemble. This will encourage students to work as a team – a musical unit. This will also help to solidify music reading skills and rhythm skills. Students will learn to recognize notes on both the treble and bass clefs. There will be opportunities to perform as an ensemble.

Assessment Criteria

Students will be graded according to their efforts to join in with classroom activities in a sensible and productive manner, using information they have gathered to help with each assignment.