

## LANGUAGE ARTS

### Reading Habits (and Processes)

- Pick books they can read independently.
- Pick books of various genres (fiction, nonfiction, fantasy, etc.).
- Read for an extended amount of time.
- Read with fluency (clearly, without hesitation) to help understand meaning.
- Read with expression.
- Adjust reading speed depending on type or difficulty of text.

### Reading Comprehension

- Use different strategies to figure out new words (word structure, context, semantic clues, etc.).
- Use different strategies to gain meaning (rereading, picture clues, prediction, punctuation).
- Make connections between the text and themselves, other stories, and the world around them.
- Respond or react to literature in various ways.
- Reads for many purposes (clarification, confirmation, information).
- Use strategies to confirm or look for information (cause and effect, chronological order, predicting outcomes, graphic organizers).
- Identify themes and main idea of text.
- Identify story elements (character, setting, plot) and compare them from story to story and author to author.
- Predict and draw conclusions about story elements.
- Identify and read various genre (mystery, fantasy, fiction, nonfiction).
- Use reference books for information.

### Print/Sound Code

- Use strategies and experiences to "sound out" words.
- Adjust reading speed depending on content and complexity of text.

### Writing Habits

- Write daily (journals, logs, etc.).
- Reread own writing.
- Focus on one element of the writing process.
- Maintain a portfolio showing writing progress.

### Writing Purposes

- Write for many reasons (informing, entertaining, persuading).
- Support ideas with facts and details.
- Write for specific audiences.
- Select and use strategies for note taking, organizing, and categorizing information.
- Produce finished work in the following genres:
  - \*Narrative: stories, fictional or autobiographical
  - \*Nonfiction: reports, lists, charts
  - \*Functional: signs, instructions, labels, recipes, directions
  - \*Produce and Respond to Literature: poems, reactions to books, songs, drama

### Written Language and Conventions

- Spell assigned words and words with regular and irregular spelling patterns correctly.
- Write about events in the order they happened.
- Use a variety of sentence types (statements, questions, exclamations).
- Use proper grammar, punctuation, and word choices.
- Plan writing pieces with a clear beginning, middle, and end.
- Drafts, edits, and revises writing.
- Write paragraphs that have main ideas, supporting sentences and concluding sentences.
- Compose a three-paragraph essay using proper format (information, narrative, etc.)

### Listening and Speaking

- Speak and express thoughts clearly.
- Listen and takes turns speaking.
- Share with others, either one-to-one or in group discussions.
- Give and follow multi-step directions.
- Build on the ideas of others in conversation.
- Support thoughts and ideas with reasons.
- Present information in a variety of forms.
- Organize an oral presentation with notes or other memory aides.



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# City School District of New Rochelle Grade Level Learning Outcomes *Grade Four*

September 2009

Dear Families,

Teachers and administrators in the City School District of New Rochelle have focused much attention in recent years on strengthening the alignment of our instructional program with the New York State learning standards. These standards indicate what students are expected "to know and be able to do" at various points along the academic path from Kindergarten to Grade 12. In order to codify this process of curriculum alignment, we have developed local learning outcomes for each of the elementary grades. They are intended to provide teachers with even greater clarity about what students are expected to accomplish each year.

This brochure summarizes the major concepts and skills in Language Arts, Math, Science and Social Studies that are included in the Fourth Grade curriculum. These items are not designed to be a checklist, but rather are offered to parents as an overview of the instructional program presented to students in Fourth Grade. Since curriculum development is an ongoing process in our district, we will continue to solicit and gather feedback from staff in order to make these learning outcomes documents more comprehensive. Any revisions made in the document for teachers will be reflected in updated editions of this brochure.

Again this year, the State Education Department will be administering student assessments in Grades 3, 4 and 5 that are intended to measure how well children demonstrate proficiency on the State learning standards and comply with the federal No Child Left Behind law that requires annual testing of all elementary and middle school students. As a district, we will continue to evaluate our Grade 2 instructional program and the performance of second grade children through the use of locally-developed English Language Arts and Math assessments, which are specifically designed to parallel the format and content of the State exams. Finally, based on the suggestions received from teachers and parents, we will be making ongoing refinements in our elementary school report cards in order to better inform parents about student progress in relation to these local learning outcomes.

I welcome any comments that you wish to offer about this brochure.

Dr. Jeffrey Korostoff  
Assistant Superintendent

## *SOCIAL STUDIES*

The political institutions, roles of civic leaders, and the historic development of the local community (New Rochelle) focusing on the social, political and economic factors are studied in connection to New York State and the United States. Significant people, places, events, and issues that influence life in New Rochelle and New York State are studied and compared to state and national events and issues. Civic concepts of equality, justice and citizenship are expanded upon as students learn about government.

### **Indigenous People of New York State**

- Demonstrate an understanding of the culture and lifestyles of the Iroquois and Algonquians.
- Identify how indigenous people's settlements were influenced by environmental and geographic factors.
- Possess knowledge of the accomplishments and contributions of people indigenous to New York State.

### **Europe, the Americas and Africa Meet in the Americas**

- Identify the major explorers of New York State.
- Discuss the social, cultural, economic, political, and geographic impact of exploration.
- Possess knowledge of the slave trade and slavery in the colonies.
- Demonstrate knowledge of how people depended on and modified their environment.

### **Colonial and Revolutionary Periods**

- Compare lifestyles in the colonies during different time periods.
- Explore the social, cultural, political, economic, scientific and technological activities in the colonies.
- Compare cultural similarities and differences that helped shape New York State.
- Demonstrate knowledge of the social, political, and economic causes for revolution.
- Identify the accomplishment of individuals and groups in the community and region.

### **Revolutionary War in New York State**

- Demonstrate an understanding for how New York State's geographic features influenced the Revolutionary War.
- Possess knowledge of the importance of New York City and New York State's location and its relationship to other locations.
- Examine the war strategy, battles, and revolutionary leaders.

### **The New Nation**

- Possess knowledge of the foundations for a new government and the ideals of democracy as expressed in the Mayflower Compact, the Declaration of Independence, and the Constitution of New York State and the United States of America.
- Examine the development of American culture, and the contributions made by people from many backgrounds.

### **Industrial Growth and Expansion**

- Explore the interactions between economic and geographic factors on industrialization and expansion.
- Examine transportation, inventions, communication, and technical progress from the 1800's to the present.

### **Urbanization**

- Possess knowledge of immigration and rural to urban to suburban migration.

### **Government**

- Acquire an understanding for basic democratic values and concepts.
- Possess knowledge of the principles of democracy via the Declaration of Independence, Preamble to the United States Constitution, Bill of Rights, Pledge of Allegiance, speeches, songs, and stories.

### **Local and State Government**

- Develop a fundamental knowledge of the structure and functions of the branches of local, New York State, and national governments.
- Develop awareness for holidays, celebrations, and symbols of our nation, including the flag of the United States of America.
- Use key concepts related to government.
- Discuss the development of the United States Constitution, the Constitution of New York State, and their respective Bill of Rights.

## *SCIENCE*

### **Physical Sciences**

- Observe, investigate, describe, and classify materials based on their physical properties, including physical changes (change of state), such as the changes in water when heat is added or taken away or in a chemical change when vinegar and baking soda interact.
- Observe, investigate, and describe variables such as shape, material, and mass and how they affect an object's properties, such as the ability of metal to conduct electricity or how the shape of an object affects its ability to float.
- Observe, investigate, and describe light, heat, electrical, sound, chemical, magnetic and mechanical energy and what happens when objects interact with those forms of energy, such as light bouncing off a shiny surface, a piano producing sound, electricity moving through a circuit, or gears creating movement.
- Understand how different forms of energy and a variety of forces affect the motion of objects, for example the effect of friction on rolling spheres.

### **Life Sciences**

- Observe and explain how adaptation, interdependence, and environmental change give a survival advantage to certain organisms.
- Observe, explain, and give examples of how plants and animals depend on each other.
- Continue to perform real-world investigations of life cycles and growth and development of plants and animals.
- Observe and explain how an animal's characteristics help it survive in their differing environments, (adaptations and interdependence) such as how the shape of teeth affect the kinds of foods animals will eat or its place on the food chain.
- Understand how various factors can affect the life spans and life cycles of organisms, for example how the amount of rainfall or predators affect populations.

### **Earth and Space Sciences**

- Examine, test, describe, and measure the effects of erosion and other natural events on earth materials, for example on land, water, and air.
- Understand how the Earth, the Moon, and other objects in the sky move in regular and predictable patterns.
- Understand the natural cycles of Earth's land, water, and air, such as the water cycle, including evaporation and condensation.
- Describe patterns of daily, monthly and seasonal changes in their environment.

### **Inquiry**

- Design and conduct investigations individually and in groups and support conclusions using data (evidence).
- Produce an individual or group report of an investigation that includes information recorded in a variety of ways, such as writing, graphs, diagrams, charts, artwork.

### **Scientific Tools and Technology**

- Use technology and tools such as magnifiers, balances (scales), thermometers and computers.
- Use standard and nonstandard units of measurement for length, width, weight, and volume, and record those measurements.
- Use charts, data tables, and graphs to record, read, and understand experiment results.

### **Scientific Thinking**

- Use evidence when asking for an explanation.
- Ask questions that can be investigated by performing simple experiments and use evidence from observations and reliable sources to construct explanations for experiment results.
- Work individually and in groups to collect, describe, record, and share information and ideas.
- Explain why similar experiments should produce similar results and identify reasons when they do not.

### **Real-World Application**

- Identify and describe patterns and change over time, for example life cycles, seasons, and growth.
- Understand and describe examples of the importance of science and technology and the impact they have on our lives, such as how computer scientists design smaller and more powerful tools.
- Develop and describe, orally and in writing, appropriate choices leading to good personal health, such as the risks of cigarette smoking, alcohol and drug use.
- Develop an understanding and appreciation of the natural world, such as understanding conservation.

### **Scientific Communication**

- Acquire information from observation, experimentation, print and non-print sources.
- Use information gathered from experiments and other sources to explain observations and events including actively listening for alternative interpretations and ideas.
- Report orally and in writing using appropriate science vocabulary.

## *MATHEMATICS*

### **Process Standards**

- Explore, examine and make observations about a social problem or mathematical situation.
- Interpret information correctly, identify the problem and generate possible solutions.
- Represent problem situations and develop explanations using oral, written, concrete, pictorial, and graphical forms.
- Use trial and error and process of elimination to solve problems.
- Make and accurately label organized lists and charts to solve numerical problems.
- Analyze problems by observing patterns, identifying relationships and determining relevant versus irrelevant information.
- Discuss the validity and efficiency of different strategies.
- Determine whether a solution is reasonable in the context of the original problem.
- Describe objects, relationships, solutions and rationale using appropriate vocabulary.

### **Content Standards**

#### **Number Sense and Operations**

- Read, write, compare and order numbers to 10,000.
- Understand the place value structure of the base ten system: 10 ones=1 ten, 10 tens=1 hundred, 10 hundreds=1 thousand, etc.
- Recognize and generate equivalent representations for numbers up to 4 digits, through composing and decomposing numbers.
- Use a variety of strategies and computational and operational methods to add, subtract, multiply and divide numbers.
- Understand various meanings for multiplication and division and the inverse relationship between them.
- Develop fluency in multiplying and dividing multiples of 10, 100, 1000.
- Interpret the meaning of remainders.
- Develop an understanding of the multiple meanings of fractions as part of a whole or a collection of things and as the division of whole numbers.
- Recognize/generate equivalent fractions using manipulatives, visual models, etc.
- Add and subtract proper fractions with common denominators.
- Compare and order decimals to hundredths using money.
- Develop an understanding of decimals as part of a whole.
- Add and subtract decimals to tenths and hundredths.
- Round numbers less than 1,000 to the nearest tens and hundreds.
- Check reasonableness of an answer using estimation.

#### **Algebra**

- Evaluate and express relationships using open sentences with one operation.
- Use the symbols <, > and = to compare whole numbers, unit fractions and decimals (up to hundredths).
- Find the value or values that will make an open number sentence true.
- Describe, extend and make generalizations about numeric and geometric patterns.
- Analyze a pattern or a whole-number function and state the rule.

#### **Geometry and Measurement Concepts**

- Identify and name polygons relative to their number of sides and angles.
- Find perimeter and area of rectangles and other 2-D shapes.
- Define and identify vertices, faces, edges, and intersecting, perpendicular and parallel lines.
- Identify points and rays and classify angles.
- Select tools and units (customary and metric) appropriate for measuring length, mass and capacity.
- Use a ruler to measure to the nearest whole, half, or quarter inch.
- Know and understand equivalent standard and metric units.
- Make change using coins and dollars.
- Calculate elapsed time in hours and half-hours not crossing AM/PM.

#### **Statistics and Probability Concepts**

- Design investigations and collect data to address a question.
- Represent data using correctly labeled tables, bar, picture or line graphs.
- Develop predictions and formulate conclusions based on data.

Parents who desire more specific information as to which math outcomes could be included in the May NYS Math Test, are encouraged to access the State's "pre-post" document available at [www.emsc.nysed.gov/3-8/gr4prepost.htm](http://www.emsc.nysed.gov/3-8/gr4prepost.htm)