Lake Shore Central Schools

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CURRICULUM GUIDE FOR GRADES K—5



Grade 5

A MESSAGE FROM THE SUPERINTENDENT

NOTES

Dear Parent/Guardian,

As you are aware, New York State has adopted a series of initiatives which have established Common Core State Standards for grades K-5. Within a series of booklets, Lake Shore Central Schools will provide an overview of the Common Core State Standards, district initiatives in achieving those standards, and core curriculums in English Language Arts, Mathematics, Science and Social Studies. In addition, these booklets provide the goals and objectives for each grade level in the various subjects. It is our hope this information will provide an opportunity for each of you to assist in the learning process of our children.

The education of our children is the responsibility of everyone—the district, parents and the students themselves. In order to achieve success, everyone must work together in this important process. I encourage each of you to take an active role in the education of our children to ensure they achieve their full potential.

I look forward to working with you as we embark upon new and exciting times in the education of our children at Lake Shore Central Schools.

Sincerely,

James Przepasniak Superintendent of Schools

K-5 WEBSITES

For additional information about our curriculum, see the Website for the Lake Shore Central School District.

Curriculum information will be found under the heading of Instructional Programs.

Lake Shore Central School http://www.lakeshorecsd.org

For additional information about specific topics, please visit the following web sites:

New York State Education Department Parent Resources

http://usny.nysed.gov/parents/

Office of State Assessment

http://www.p12.nysed.gov/apda/

Office of Curriculum and Instructional Support

http://www.p12.nysed.gov/ciai/

Common Core State Standards Initiative

http://www.corestandards.org/

Education is a social process...

Education is growth...

Education is not a preparation for life;

Education is life itself.

—-John Dewey

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HOMEWORK POLICY

Philosophy:

Homework is a valuable aid in helping students maximize their school experience. It reinforces classroom learning, builds responsibility, and develops essential study habits. Homework is one vehicle for home-school communication. Parents are encouraged to make it a positive experience for children. Parents must plan a homework time in order to strike a balance between academics, family life and the child's needs.

General Types of Homework:

- Practice assignments reinforce skills and concepts taught in class.
- Preparation assignments provide background information before topics appear in class.
- Extension assignments emphasize individual needs and interests, creativity and application of knowledge gained in class.
- Study assignments prepare students for tests and provide the completion of independent reading.

Student Responsibilities:

- 1. Listen to class directions for assignments and include due date if necessary.
- 2. Ask questions if you do not understand the assignment.
- 3. Take home the instructions and materials needed to complete the assignment.
- 4. Work with your parents to set a regular time and place to do your homework.
- 5. Do your own work, but ask your parents for assistance if needed.
- 6. Work should be complete, legible and done to the best of your ability.
- 7. Show your parents the completed work to ensure quality.
- 8. Ask your teacher for help the next day if you did not understand the assignment.
- 9. Return assignments on the date due.

N.Y.S. TESTING

English Language Arts (ELA) 3rd, 4th, 5th, 6th, 7th & 8th Grade

Mathematics 3rd, 4th, 5th, 6th, 7th & 8th Grade

Science 4th & 8th Grade

Social Studies 5th & 8th Grade



FIFTH GRADE DEVELOPMENTAL DESCRIPTORS

Below are some general developmental milestones to help you understand your child's progress over the school year. Keep in mind that every child is different and may not fit perfectly into this framework.

The Fifth Grader should...

- Tend to be obedient, good natured, and fun.
- Possess a surprising scope of interests.
- Be capable of increasing independence.
- Become more truthful and dependable.
- Tend to be improving his/her self-concept and acceptance of others.
- Form good personal relationships with teachers and counselors.

School isrt just academics. Your child's teachers are also helping him/her grow socially. At ten-years-old, your child is developing communication skills and becoming more mature.

The Fifth Graders should...

- Improve their listening and responding skills.
- Increase their problem-solving abilities.
- Begin to undergo maturational changes.
- Gain awareness of peer and adult expectations.

Signs of Trouble

- ◆ Failure to do their homework and gain the added practice will cause students considerable difficulty in fifth grade.
- ◆ A poor understanding of the rules of grammar will be reflected in sub-par writing.
- Difficulties in mathematics will be compounded for those students who havert learned to solve word problems or mastered the basic facts (addition, subtraction, multiplication and division).

The Fifth Graders may have trouble if they are not able to...

- Write solid sentences and paragraphs.
- Work in groups.
- ♦ Analyze and recall facts.
- Give talks and share the information the we learned.
- Read content area materials.

HOMEWORK POLICY

The following are guidelines for parents to help monitor the duration of homework assignments. The frequency and/or the nature of assignments may differ among teachers.

Approximate Time
15 minutes (assisted)
15 minutes
15-20 minutes
20-30 minutes
30-45 minutes
45-60 minutes

Parent Responsibilities:

- 1. Provide a quiet and well-lit work area with needed homework materials.
- 2. Schedule a regular time for completion of homework.
- 3. Insist that homework be completed and returned to school on its due date.
- 4. Praise your child for his/her efforts. Display his/her papers and artwork at home. Communicate a positive school attitude.
- Assist your child with assignments only if necessary. Do not over-supervise.
- 6. Consult your child's teacher when necessary.
- Enhance your child's learning through enriching and related experiences such as trips to the library and family field trips.
- 8. Read for pleasure with your child.

ENGLISH LANGUAGE ARTS (ELA)

New York State English Language Arts Standards

Standard 1: Language for Information and Understanding Students will listen, speak, read, and write for information and understanding. As listeners and readers, students will collect data, facts, and ideas; students will collect data, lacts, and ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to acquire, interpret, apply and transmit information.

Standard 2:

Language for Literacy Response and Expression Students will read and listen to oral, written and electronically produced texts and performances from American and World literature; relate text and performances to their own lives; and develop an understanding of the diverse social, historical, and cultural dimensions the texts and performances represent. As speakers and writers, students will use oral and written language that follows the accepted conventions of the English language for self-expression and artistic creation.

Standard 3:

Language for Critical Analysis and Evaluation Students will listen, speak, read and write for critical analysis and evaluation. As listeners and readers, students will analyze experiences, ideas, information and issues presented by others, using a variety of established criteria. As speakers and writers they will use oral and written language that follows the accepted conventions of the English language to present, from a variety of perspectives, their opinions and judgments on experiences, ideas, information and issues.

Standard 4:

Language for Social Interaction
Students will listen, speak, read and write for social interaction. Students will use oral and written language that follows the accepted conventions of the English language for effective social communication with a wide variety of people. As readers and listeners, they will use the social communication of others to enrich their understanding of people and their views.

FIFTH GRADE SOCIAL STUDIES THE STUDENTS WILL BE ABLE TO

- Understand constitutions, rules and laws are developed in democratic societies in order to maintain order, provide security, and protect individual rights.
- Recognize that the rights of citizens in the United States are similar to and different from the rights of citizens in other nations of the Western Hemisphere.
- Recognize that the roles of citizenship are defined by different constitutions in the Western Hemisphere.
- Identify that governmental structures vary from place to place, as do the structure and functions of governments in the United States, Canada, and Latin American countries today.
- Understand concepts, such as civic life, political, and government that can be used to answer questions about what governments can and should do, how people should live their lives together, and how citizens can support the proper use of authority or combat the abuse of political power.
- Recognize legal, political, and historical documents that define the values, beliefs, and principles of constitutional democracy. In the United States these documents include the Declaration of Independence, the United States Constitution, and the Bill of Rights. In Canada these documents include the British North America Act and Canadian Bill of Rights.
- Understand that citizenship in the United States, Canada, and nations of Latin America include an awareness of the patriotic celebrations of those nations. In the United States these celebrations include: Lincoln's Birthday, Washington's Birthday, Independence Day, Dr. Martin Luther King, Jr. Day, Thanksgiving Day, Election Day, Flag Day, Memorial Day, and Conservation Day.
- Recognize that international organizations were formed to promote peace, economic development, and cultural understanding. The United Nations was created to prevent war and to fight hunger, disease, and ignorance.

FIFTH GRADE SOCIAL STUDIES THE STUDENTS WILL BE ABLE TO....

- Will recognize that individuals and groups in the United States, Canada, and Latin America attempt to satisfy their basic needs and wants by utilizing scarce capital, natural and human resources.
- Evaluate types and availability of resources that are important to economic development in the United States, Canada, and Latin America today.
- Understand the interdependence of nations North, Central and South America which depends on one another for various resources and products they need.
- Understand that the production, distribution, exchange, and consumption of goods and services are economic decisions which the nations of North and South America must make.
- Recognize that science and technology have influenced the standard of living in nations in North, Central and South America.
- Recognize that exchanges of technologies, plants, animals, and diseases between and among nations of the Americas and Europe and sub-Saharan Africa have changed life in these regions.
- Recognize that as the economic systems of the global community have become more interdependent, decisions made in one nation or region in the Western Hemisphere have implications for all nations or regions.

The Governments of the United States, Canada, and Latin American nations.

- Draw conclusions that across time and place, the people of the Western Hemisphere have held differing assumptions regarding power, authority, governance, and law.
- Categorize basic civic values, such as justice, due process, equality, and majority rule with respect for minority rights are expressed in the constitutions and laws of the United States, Canada, and Latin America.

FIFTH GRADE ELA DESCRIPTORS READING

THE STUDENT:

Students in fifth grade are confident, independent and enthusiastic readers. Background knowledge and higher level thinking skills allow them to appreciate a variety of literature, including novels, poetry, and reference materials. They have internalized reading strategies and demonstrate fluent oral expression. The ability to analyze and interpret text is developing. They successfully connect ideas in text to other ideas, experiences, and literature.

THE PROGRAM:

Through the implementation of the literature-based reading program, the process approach to the teaching of writing, experiences in preparation, engagement, and response, Lake Shore students will become competent readers, writers, listeners and speakers.

A balanced literacy approach builds a connection between reading and writing. Reading includes: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Writing is taught using a process approach which emphasizes content, as well as mechanics and spelling. Experiences in the ELA program will help students to listen for and retain information, as well as to speak clearly and confidently in large and small group setting.



FIFTH GRADE ELA-READING OBJECTIVES

The Fifth Grader will be able to....

- Skim and scan text to determine if a book or passage has information needed.
- Use charts and graphs to interpret text.
- Use schedules to understand information.
- Draw conclusions and make inferences from information.
- Evaluate information in text.
- Use the compare and contrast strategy to collect information from various sources.
- Draw conclusions and make inferences about new material, as it relates to experiences.
- Read stories from a variety of genres to identify plot, character and setting.
- Use the card and electronic catalog to search for a book by title, author or subject.
- Use encyclopedia to locate and gather information.
- Choose reference sources, such as thesaurus, dictonary, telephone directory, atlas, encyclopedia and almanac for information and appropriate search engines on internet.
- Read a story and identify how characters change within the plot.
- Read about problem solving and decision-making to have the information needed to compare characters in the story to people in their lives.
- Read a story to identify and recognize literary devices, such as simile, metaphor, and personification in order to create and gain meaning from text.

FIFTH GRADE SOCIAL STUDIES THE STUDENTS WILL BE ABLE TO....

Geography of the United States, Canada, and Latin America

- Use maps and other geographic representations, tools, and technologies, such as aerial and other photographs, satelliteproduced images, and computer models to gather, process, and report information about the United States, Canada, and Latin America today.
- Recognize that political boundaries change over time and place.
- Identify different geological processes which shaped the physical environments of the United States, Canada, and Latin America.
- Categorize nations and regions of the Western Hemisphere in terms of spatial organization, places, regions, physical settings (including natural resources), human systems, and environment and society. A region is an area that is tied together for some identifiable reason, such as physical, political, economic or cultural features.
- Draw inferences from the physical and human characteristics of places in the United States, Canada, and Latin America today.
- Explain the characteristics, distribution, and complexity of cultures found in the United States, Canada, and Latin America.
- Understanding human actions can modify the physical environments of the United States, Canada, and Latin America.

The Economies of the United States, Canada, and Latin America

 Understand how concepts, such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, economic growth, and systems can be used to study the economies and economic systems of the United States, Canada, and Latin America.

FIFTH GRADE SOCIAL STUDIES THE STUDENTS WILL BE ABLE TO....

History of the United States, Canada, and Latin America

- Demonstrate an understanding of different ethnic, national, and religious groups, including Native American Indians, and how they have contributed to the cultural diversity of these nations and regions by sharing their customs, traditions, beliefs, ideas, and languages. Recognize that different people living in the Western hemisphere view the same event or issues from different perspectives.
- Demonstrate an understanding of the migration of groups of people in the United States, Canada, and Latin America that has led to cultural diffusion because people carry their ideas and ways of life with them when they move from place to place.
- Identify connections and exchanges that exist between and among the people of Europe, sub-Sahara Africa, Canada, Latin America, the Caribbean, and the United States. These connections and exchanges include social/cultural, migration/immigration, and scientific/ technological.
- Identify and organize key turning points and events in the histories of Canada, Latin America, and the United States into different historical time periods. For example, key turning points might include: 18th-century exploration and encounter; 19th-century westward migration and expansion, 20th-century population movement from rural to suburban areas.
- Recognize that important historic figures and groups have made significant contributions to the development of Canada, Latin America, and the United States.
- Demonstrate an understanding of industrial growth and development and urbanization have had important impacts on Canada, Latin America, and the United States.



New York State recommends that students read a minimum of 25 books per year across all content areas and standards.

The students read for:

- Information and understanding
- Literary response and expression
- Critical analysis and evaluation
- Social interaction

The following recommended reading list is a sampling of the typical books that may be selected for this grade level.

Children, with support from teachers and parents, are expected to read 25 age-appropriate books. The selections address many interests and maturity levels. When selecting a book, attention should be given to personal preference and needs.

Students should use many strategies while reading. They should systematically monitor their personal reading by asking themselves questions such as "Does it sound right?", "Does it make sense?" and "Does it look right?" The primary goal should always be to read for understanding and enjoyment.

The single most important activity for building the knowledge required for success in reading is reading...Jim Trelease

FIFTH GRADE RECOMMENDED READING LIST (WITH AUTHOR'S LAST NAME)

George, Jean Craighead—ALL TITLES Dahl, Roald—ALL TITLES Sacher, Louis—ALL TITLES MacLachlan, Patricia—ALL TITLES Christopher, Matt—ALL TITLES Hite. Sid—MY NAME IS AMERICA SERIES Gregory, Kristiana—THE ROYAL DIARIES SERIES Gantos, Jack—JOEY PIGZA BOOKS Gardiner, John Reynolds—STONE FOX Levine, Gail Carson—ELLA ENCHANTED Ryan, Pam Munoz—RIDING FREEDOM Naylor, Phyllis Reynolds—SHILOH Creech, Sharon—LOVE THAT DOG Clements. Andrew—FRINDLE Estes, Eleanor—THE HUNDRED DRESSES Fleischman, Sid—THE WHIPPING BOY DeCamillo, Kate—THE TALE OF DESPERAUX Blume, Judy—BLUBBER Spinelli, Jerry—MANIAC MAGEE Curtis, Christopher Paul—BUD, NOT BUDDY Giff, Pattricia Reilly— PICTURES OF HOLLIS WOODS Hiaason, Carl—HOOT

SOCIAL STUDIES K-5

Grade Five: The United States, Canada, and Latin America

The grade 5 social studies program stresses geographic, economic, and social/cultural understandings related to the United States, Canada, and nations in Latin America today. These perspectives build on and reinforce historic and political content about the United States included in the grade 4 social studies program. When appropriate, the grade 5 program should use contemporary examples of case studies to help students understand the content understandings that follow. The content understandings were developed to assist in selecting specific factual information and case studies.

Content Understandings

- History of United States and Canada.
- Geography of United States, Canada and Latin America.
- The economies of United States, Canada and Latin American nations.
- The governments of United States, Canada and Latin American nations.



SOCIAL STUDIES K-5

SKILLS K-5

- Getting informed
- Using information
- Presenting information
- Participating in Interpersonal and Group Relations

PROBLEM SOLVING SKILLS K-5

- The student will be able to define or identify a problem.
- The student will be able to hypothesize, investigate data and solve problems which are either presented by the teacher or which are identified by the student.
- ♦ The student will be able to work with others engaged in problem-finding/solving skills and recognize and accommodate value conflicts in the decision making process.
- ◆ The student will be able to communicate orally, visually, and/or in writing the results of the problem finding/solving effort.

CONCEPTS K-5

Change Civic Values
Citizenship Culture
Empathy Environment
Identity Interdependence
Nation-State Needs and Wants
Places and Region Technology

SUGGESTIONS FOR PARENTS

- Make a family tree and talk about family history.
- Visit in your local community.
- Talk to your child at his/her level of understanding about world events.
- Read stories together about famous people.
- Talk about the history of the holidays: Fourth of July, Veterans Day, Patriots Day etc.

FIFTH GRADE RECOMMENDED READING LIST (WITH AUTHOR'S LAST NAME)

Hannigan, Katherine—IDA B...AND HER PLANS...
Grodin, Elissa—D IS FOR DEMOCRACY
Struass, Rochelle—TREE OF LIFE
Cheney, Lynne—WHEN WASHINGTON CROSSED
THE DELAWARE

O'Dell, Scott—ISLAND OF THE BLUE DOLPHINS
Cleary, Beverly—DEAR MR. HENSHAW
Speare, Elizabeth George—THE SIGN OF
THE BEAVER

Cushman, Karen—CATHERINE CALLED BIRDY
Hollyer, Beatrice—LET'S EAT! WHAT CHILDREN
EAT AROUND THE WORLD

Rumford, James—SEQUOYAH: THE CHEROKEE
MAN WHO GAVE HIS PEOPLE WRITING
Burnett, Frances Hodgson—SECRET GARDEN
Wright, Betty Ren—THE DOLLHOUSE MURDERS
Ruckman, Ivy—NIGHT OF THE TWISTERS



ELA—READING SUGGESTIONS FOR PARENTS

Making Reading a Family Affair

Hints For Parents

In addition to daily homework assignments, be sure to set aside some time each night for reading. A book may be read in one evening or over a period of several weeks.

Ask your children to read aloud a portion of the book that they like best. Praise them for trying and doing a good job. This will help with their self confidence in order to build comprehension and personalize their understanding by asking them what they enjoyed about what they read. Encourage them to describe the best part of the story.

Give children an opportunity to make use of the local library. Help them find the appropriate section for their reading level. Teach older children to use the card catalog (or computer) to locate books. Check out library books on a regular basis.

Remember to set an example for your children. Take time to read every day. When children see their parents reading for pleasure, they are motivated to do the same. Share what you have read with your children.

Reading can open doors to knowledge. It leads to a world of information, adventure, mystery, laughter and love. Children will seek to enter this world with encouragement from home and school.

Happy Reading!

SOCIAL STUDIES K-5

In Social Studies, students confront questions about the wonder and excitement of human kind in the world. Social Studies help students understand their roots, see their connections to the past, comprehend their context, recognize the commonality of people across time, appreciate the delicate balance of rights and responsibilities in an open society, and develop the habits of thoughtful analysis and reflective thinking. In helping students answer these questions, social studies engage students in the study of history, geography, economics, government and civics. Instruction draws on other disciplines such as anthropology, sociology, political science, psychology, religion, law, archaeology, philosophy, art, literature, other humanities subjects and the sciences.

Social studies gives students the knowledge, intellectual skills, civic understanding, and dispositions towards democratic values that are necessary to function effectively in American society. Ultimately, social studies instruction helps students assume their role as responsible citizens in America's constitutional democracy and as active contributors to a society that is increasingly diverse and interdependent with other nations of the world. Social studies instruction provides students with the background to conduct research in order to cast informed votes, with the skills to place conflicting ideas in context, and with the wisdom to make good judgments in dealing with the tensions inherent in society such as the enduring struggle to find the balance between protecting the rights of the individual and promoting the common ground.

SOCIAL STUDIES K-5

Standard 1: History of the United States and New York

Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Standard 2: World History

Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Standard 3: Geography

Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global— including the distribution of people, places, and environments over the Earth's surface.

Standard 4: **Economics**

Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and non-market mechanisms.

Standard 5: Civics, Citizenship, and Government

Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for established governments; the governmental system of the United States and other nations; the United States Constitution; the basic civil values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, includes avenues of participation.

FIFTH GRADE ELA-WRITING DESCRIPTORS



New York State suggests that students write 1000 words per month.

Fifth grade students are writing to present ideas fully and clearly. They build an engaging plot around a situation, conflict or problem. They effectively present point

of view, sense of context, and/or characters. Their ideas are presented in clear order and logical sequence with transitions made through the use of paragraphing, introductions, and/or conclusions. They demonstrate control of simple language conventions. Complex language conventions are increasingly evident. They effectively use strategies in their writing, such as dialogue, description, or suspense to sustain the reader's interest. This writer engages the reader with lively, descriptive language, a sense of audience, and an expressive, individual sense of voice.

The Fifth Grader will be able to....

- Take notes from informational text in an organized manner.
- Paraphrase text to take notes and write reports.
- Write, compare and contrast paragraphs using several sources.
- Write a personal essay in paragraph form.
- Write a descriptive essay in paragraph form.
- Write a book report in paragraph form.
- Write research reports in paragraph form stating the main idea and using supporting details.
- Write a poem with a lead that attracts the reader's interest.
- Write a persuasive essay with a lead that attracts the reader's interest.
- Write a personal essay, using a lead, that attracts the reader's interests in the opening.
- Use the strategy for outlining information from text to organize writing.
- Use the strategy for note taking and paraphrasing to organize writing.

FIFTH GRADE ELA-LISTENING/SPEAKING DESCRIPTORS

Listening

Students at the fifth grade listening level focus their attention for an extended period of time. They demonstrate awareness and understanding by reacting to what is said in ways that enhance the situation. They discriminate sharply between what is and is not relevant.

The Fifth Grader will be able to....

- Listen to media broadcast in order to identify unfamiliar words and learn their meaning.
- Listen to oral history to identify cultural and historical influences in texts and performances.
- Take notes from verbal information.
- Follow directions concerning a task or assignment.

Speaking

Students at the experience speaking level communicate ideas effectively in an organized and cohesive manner. They contribute ideas actively with relevant information and may extend responses beyond what is being discussed. Ideas are complete and well developed with detailed elaboration. Students make insightful comments, ask thoughtful questions, and use descriptive vocabulary. They hold the attention of others when speaking.

The Fifth Grader will be able to....

- Prepare a speech which summarizes main points in the conclusion.
- Prepare an oral presentation which reviews the main ideas in conclusion.
- Debate using notes to make an argument.
- Explain a process orally to a group, using notes or outline.
- Interview peers or adults in order to ask questions and respond to questions for clarification.

Suggestions for Parents

- Parents should model proper listening skills.
- Parents should model correct grammar and pronunciation of words.

FIFTH GRADE SCIENCE

The Fifth Grader will be able to....

- Classify all living things and recognize life process.
- Identify parts and functions of plant and animal cells.
- Discover basic necessities of life for plants and animals.
- Recognize the various characteristics of vertebrates and invertebrates.
- Discover the interdependence of populations and communities within an ecosystem.
- Identify the parts and functions of the body systems with emphasis on the respiratory system.
- Explore properties of matter.
- Identify atomic particles and their places in the periodic table and explore molecular structure.
- Identify the various ways heat travels and its effect on matter.
- Recognize the forms of energy and changes.
- Recognize that the earth's crust is constantly changing.
- Explore the rock cycle.
- Understand man's role in protecting the environment.
- Understand and apply scientific concepts, principles to the physical setting and living environment.
- Recognize the historical development of ideas in science.
- Explore and investigate science through the use of 3 kits. They
 include Ecosystem, Electro-Magnetism and Rocks and Minerals.
 This gives students a hands-on approach to Science in which
 they enjoys and learn.

K-5 SCIENCE And Health

PHYSICAL SETTING

- Understanding seasonal changes.
- Understanding the water cycle, weather, erosion, and extreme natural events.
- Describe, compare, and observe the properties of matter (color, hardness, odor, sound, taste, length, width, volume, size, shape, mass, temperature, texture and reflectiveness).
- Understand that energy (heat, chemical, light) exists in many forms.
- Describe chemical and physical changes in the states of matter (solid, liquid, gas).
- Describe the effects of common forces, (push & pull) of objects such as magnetism, gravity and mechanical forces.

HEALTH

- Identify how the body systems work and interrelate in pattern of growth and development.
- Explain how and why we should eat nutritionally balanced meals.
- Identify the harmful effects of alcohol, tobacco and other drugs.
- Identify common diseases and disorders and how they may be prevented and treated.

Grade K: Overview of the five senses, the function and development of teeth and oral hygiene

Grade 1: Senses—taste, touch and smell

Grade 2: Senses—sight and sound

Grade 3: Muscular and skeletal system

Grade 4: Digestion and nutrition

Grade 5: Body systems—respiratory

MATHEMATICS, SCIENCE & TECHNOLOGY (MST)

Common Core State Standards for Mathematics, Science and Technology

Standard 1: Analysis, Inquiry and Design

Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

Standard 2: Information Systems

Students will access, generate, process, and transfer information using appropriate technologies.

Standard 3: Mathematics

Students will understand the concepts of and become proficient with the skills of mathematics; communicate and reason mathematically; become problem solvers by using appropriate tools and strategies. Through the integrated study of number sense and operations, algebra, geometry, measurement, statistics and probability

Standard 4: Science

Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Standard 5: **Technology**

Students will apply technological knowledge and skills to design, construct, use and evaluate, products and systems to satisfy human environmental needs.

Standard 6: Interconnectedness Common Themes

Students will understand the relationship and common themes that connect mathematics, science, and technology and apply the themes to these other areas of learning.

Standard 7: Interdisciplinary Problem Solving

Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

FIFTH GRADE MST #3

All mathematics education within the Lake Shore Central Schools is based on Standard 3 from the New York State Education Department's Common Core State Standards for Mathematics, Science and Technology.

Mathematics learning and testing are dependent upon three components of function in our world today. The Components include the ability to understand and become proficient with math skills, to be able to communicate mathematically, and to problem solve using appropriate tools and strategies. The goals of these components are broken down into two strands: Process Strands and Content Strands.

Process Strands:

- Problem Solving
- ♦ Reasoning and Proof
- ♦ Communication
- Connections
- ♦ Representation

Content Strands

- Number Sense and Operations
 - -Read, write, and compare whole numbers to millions.
 - -Understand place value structure up to 1 million.
 - -Create equivalent fractions, given a fraction.
 - -Compare and order fractions including unlike denominators.
 - -Understand the concept of ratio and express in different forms.
 - -Read, write, and order decimals to thousandths.
 - -Compare decimals and fractions using <,>, or =.
 - -Understand that percent means part of 100, and write percents as fractions and decimals
 - -Understand prime and composite numbers.
 - -Calculate multiples of a whole number and the least common multiple of two
 - -Identify the factors of a given number, including common and greatest common.
 - -Use a variety of strategies to multiply three-digit by three-digit numbers.
 - -Divide three-digit numbers by one- and two-digit numbers.
 - -Use order of operations.
 - -Simplify fractions to lowest terms.
 - -Convert improper fractions to mixed numbers, and mixed numbers to improper fractions.
 - -Add and subtract mixed numbers and fractions with like denominators.
 - -Add, subtract, multiply and divide decimals to thousandths.
 - -Round numbers to the nearest hundredth and up to 10,000.
 - -Estimate sums and differences of fractions with like denominators.
 - -Estimate sums, differences, products, and quotients of decimals.
 - -Justify the reasonableness of answers using estimation.

K-5 SCIENCE AND HEALTH

To meet Common Core State Standards in Science, the Elementary Science Program at Lake Shore stresses learning that is hands-on, process-oriented and inquiry-based. It encourages students to think rather than just memorize.

PROCESS SKILLS

- Explain verbally, graphically or in writing the relationship observed in the physical and living environments.
- Use appropriate scientific tools for measuring, observing, describing, classifying and sequencing to solve problems about the natural world.
- Ask "why" questions to seek a greater understanding of objects and events.
- Develop ideas for proposed solutions.
- Suggest ways objects can be improved.
- Generate possible solutions by applying age-appropriate math and science skills.
- Recognize and analyze trends.

LIVING ENVIRONMENT

- Describe the characteristics of living and non-living things.
- Describe the life process common to all living things.
- Recognize that there is a genetic continuity between all living things.
- Describe the structure of plants and animals.
- Understand the life cycle of plants and animals.
- Describe the life functions of common living things.
- Understand the interdependence of plants and animals.
- Recognize that human decisions have an impact on plants and animals.

FIFTH GRADE MATHEMATICS

The Fifth Grader will be able to....

- Estimate, add and subtract units of time.
- Estimate, measure, and convert customary units of length, capacity, weight, and temperature.
- Estimate, measure, and convert metric units of length, capacity, mass and temperature.
- Find perimeter, circumference, area, and volume.
- Read, write, and use ratios, including equal ratios.
- List outcomes; find probabilities.
- Analyze and solve problems using skills and strategies.

Suggestions for Parents

- Students are still expected to master the basic skills and facts. Help your child memorize the basic facts (addition, subtraction, multiplication and division).
- Review your child's homework daily.
- The grocery shopping experience provides many opportunities for learning such as:
 - weighing produce
 - using money
- Cooking can be a wonderful learning experience that involves measurement, fractions, time and temperature.
- Children should be encouraged to develop spatial relationship and problem solving skills.

FIFTH GRADE MST #3

♦ Algebra Strand

- -Know and use constants, variables, and algebraic expressions.
- -Translate simple verbal expressions into algebraic expressions.
- -Substitute assigned values into variable expressions and evaluate using order of operations.
- -Solve simple one-step equations using basic whole-number facts.
- -Solve and explain simple one-step equations using inverse operations involving whole numbers.
- -Evaluate the perimeter formula for given input values.
- -Create and explain patterns and algebraic relationships, algebraically: 2n.
- -Create algebraic or geometric patterns using concrete objects or visual drawings.

♦ Geometry Strand

- -Calculate the perimeter of regular and irregular polygons.
- -Identify similar triangles.
- -Identify the ratio of corresponding sides of similar triangles.
- -Classify triangles and quadrilaterals by properties of their angles and sides.
- -Know that the sum of the interior angles of a quadrilateral is 360 degrees.
- -Know that the sum of the interior angles of a triangle is 180 degrees.
- -Find a missing angle when given two angels of a triangle.
- -Identify pairs of congruent triangles.
- -Identify corresponding parts of congruent triangles.
- -Identify and draw lines of symmetry of basic geometric shapes.
- -Identify and plot points in the first quadrant.
- -Plot points to form basic geometric shapes.
- -Calculate perimeter of basic geometric shapes drawn on a coordinating plane.

Measurement Strand

- -Use a ruler to measure to the nearest centimeter, inch, 1/2, 1/4, and 1/8 inch.
- -Identify customary equivalent units of length.
- -Identify equivalent metric units of length.
- -Convert measurement within a given system.
- -Determine the tool and technique to measure lengths and angles.
- -Calculate elapsed time in hours and minutes.
- -Measure and draw angles using a protractor.
- -Determine personal references for customary and metric units of length.
- -Justify the reasonableness of estimates.

Statistics and Probability Strand

- -Collect and record data from a variety of sources.
- -Display data in a line graph to show an increase or decrease over time.
- -Calculate the mean for a given set of data and use to describe a set of data.
- -Formulate conclusions and make predictions from graphs.
- -List the possible outcomes for a single-event experiment.
- -Record experiment results using fractions/ratios.
- -Create a sample space and determine the probability of a single event, given a simple experiment.

FIFTH GRADE MATHEMATICS

The following learning objectives are covered at the Fifth Grade level at Lake Shore Central Schools.

The Fifth Grader will be able to...

- Read, write and determine the place value of a digit in whole numbers through millions.
- Read, write and identify the place value of a digit in decimals through thousandths.
- Compare and order whole numbers and decimals.
- Round whole numbers and decimals.
- Estimate sums and differences for whole numbers and decimals.
- Relate addition and subtraction.
- Add and subtract whole numbers.
- Add and subtract decimals and fractions.
- Collect, organize, and describe data using median, mode and range.
- Construct, read, and interpret bar graphs, pictographs, line graphs and stem-and-leaf plots.
- Name and graph ordered pairs on a coordinate plane.
- Multiply by multiples of 10, 100 and 1,000.
- Estimate products using whole numbers.
- Multiply by one-, two- and three-digit factors; including money.
- Relate multiplication and division.



FIFTH GRADE MATHEMATICS

The Fifth Grader will be able to....

- Use basic facts (addition, subtraction, multiplication and
- Divide two-, three-, and four-digit numbers by one-digit divisors (including multiples of 10, 100 and 1,000).

Find averages. Divide by multiples of ten.

Divide two-, three-, and four-digit numbers by two-digit

Identify geometric figures.

Classify, measure, and draw angles. Classify triangles and quadrilaterals.

- Identify figures that are congruent, similar, symmetrical, and involve transformations.
- Multiply decimals by 10, 100 and 1,000.
- Estimate products of decimals.

Multiply decimals.

Divide a decimal by a whole number.

Relate fractions, décimals and percentages...

- Estimate, write, compare, and order fractions and mixed numbers.
- Find equivalent fractions including writing fractions in simplest form.
- Identify the greatest common factor, the least common denominator, prime and composite numbers.
- Estimate sums and differences, using fractions and mixed numbers.
- Add and subtract fractions and mixed numbers with like denominators.
- Add and subtract fractions and mixed numbers with unlike denominators.
- Multiply fractions and mixed numbers.
- Use variables to solve expressions.
- Solve and write equations and inequalities.

Suggestions for Parents

Students are still expected to master the basic skills and facts. Help your child memorize the basic facts (addition and subtraction to 18)

Review your child's homework daily.

The grocery shopping experience provides many opportunities for applying mathematics in a real world setting:

- weighing produce

- using money

Cooking can be a learning experience that involves measurements, fractions, time and temperature.

Younger children should be encouraged to solve picture puzzles to develop spatial relationship and problem solving skills.