

New Jersey Core Curriculum Content Standards for Language Arts Literacy Saxon Phonics and Spelling and Multisensory Teaching of Basic Language

By the end of **Kindergarten**, students will know:

1. Concepts About Print

- Realize that speech can be recorded in words (e.g. his/her own name; words and symbols in the environment)
- Distinguish letters from words
- Recognize that words are separated by spaces
- Follow words left to right and from top to bottom
- Recognize that print represents spoken language
- Demonstrate understanding of the function of a book and its parts, including front and back and title page.

2. Phonemic Awareness

- Demonstrate understanding that spoken words consist of sequences of phonemes
- Demonstrate phonemic awareness by rhyming, clapping syllables and substituting sounds
- Understand that the sequence of letters in a written word represents the sequence of sounds (phonemes) in a spoken word (alphabetic principle).
- Learn many, though not all, one-to-one letter-sound correspondences.
- Given a spoken word, produce another word that rhymes with it.

3. Decoding and Word Recognition

- Recognize some words by sight.
- Recognize and name most uppercase and lowercase letters of the alphabet.
- Recognize and read one's name.

4. Fluency

- Practice reading behaviors such as retelling, reenacting or dramatizing stories.
- Listen and respond attentively to literary texts (e.g. nursery rhymes) and functional texts (e.g. dinosaur books).

5. Reading Strategies (before, during and after reading)

- Use picture clues to aid understanding of story content.
- Relate personal experiences to story characters' experiences, language, customs, and cultures with assistance from teacher.

6. Vocabulary and Concept Development

- Continue to develop a vocabulary through meaningful, concrete experiences.

7. Comprehension Skills and Response to Text

- Verbally identify the main character, setting, and important events in a story read aloud.
- Retell a story read aloud using main characters and events.
- Participate in shared reading experiences.
- Make predictions based on illustration or portions of stories.

Building upon knowledge and skills gained in the preceding grade, by the end of **Grade 1**, students will know:

1. Concepts about Print

- Match oral words to printed words
- Practice reading print in the environment at school and at home with assistance
- Locate and identify the title, author and illustrator of a book or reading selection.

2. Phonemic Awareness

- Demonstrate understanding of all sound-symbol relationships.
- Blend or segment the phonemes of most one-syllable words.
- Listen and identify the number of syllables in a word.
- Merge spoken segments into a word.
- Add, delete, or change sounds to change words (e.g. cow to how, cat to can)

3. Decoding and Word Recognition

- Identify all consonant sounds in spoken words (including blends such as bl, br; and digraphs such as th, wh).
- Recognize and use rhyming words to reinforce decoding skills.
- Decode regular one-syllable words and nonsense words (e.g., sit, zot)
- Use sound-letter correspondence knowledge to sound out unknown words when reading text.
- Recognize high frequency words in and out of context.
- Decode unknown words using basic phonetic analysis.

4. Fluency

- Answer questions correctly that are posed about stories read.
- Begin to read simple text with fluency.
- Read with fluency both fiction and nonfiction that is grade-level appropriate.

5. Vocabulary

- Develop a vocabulary of 300-500 high-frequency sight words and phonetically regular words.

New Jersey Core Curriculum Content Standards for Mathematics
Saxon Math and Singapore Math

By the end of **Kindergarten**, students will:

- 1. Demonstrate and apply a knowledge and sense of numbers**
 - Count, read, write and order whole numbers to 100.
 - Compare whole numbers up to 100 using the words more than, less than and the same as.
 - Represent numbers using physical models.
 - Recognize number words through ten.
 - Add, subtract, multiply and divide whole numbers and add and subtract simple decimals and fractions with accuracy using a variety of appropriate strategies (concrete objects, mental computation, and paper and pencil).
 - Devise stories/situations familiar to student experiences that use addition.
 - Demonstrate the use of the addition symbol (+) and the equal symbol (=).
 - Identify and name fractional parts of a whole using $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$.
 - Count forward to 100 and count backward from 20.
 - Count by 2's up to 20.
- 2. Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.**
 - Demonstrate how to measure using non-standard units.
 - Estimate which of a given set of containers would be most appropriate for a given amount of filler.
 - Discuss appropriateness of units of measure to be used for non-standard units of measure (e.g., number of paper clips long is the room or the number of steps long).
 - Measure and tell time using instruments (e.g., analog and digital clocks) and units (e.g., minutes, hours) to the nearest half-hour.
 - Identify and give the value of a penny, nickel, dime and quarter.
 - Count up to a quarter using different combinations of coins.
- 3. Use Algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.**
 - Classify and sort objects by common attribute (e.g., color, shape and size).
 - Locate numbers on a number line.
 - Model the concepts of equal and unequal groups using concrete objects.
 - Make up and solve a story problem that could be derived from a picture.
- 4. Use Geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.**
 - Identify the shape (e.g., circle, square) of objects (e.g., clock, floor, tile, ball) common to the students' environment.
 - Identify, sort, classify and compare familiar one-dimensional shapes (e.g., circle, square, rectangle and triangle).
 - Give and respond to directions about location (e.g., in front of, by, right, left).
 - Fold shapes into congruent parts.

5. Collect, organize and analyze data using statistical methods to predict results and interpret uncertainty and change in practical applications.

- Collect data based on likes, dislikes and favorites using concepts of more (most) and less (least).
- Read and interpret information from a picture graph.
- Formulate questions of interest; design surveys or experiments to answer the questions, gather data, explain how the data will answer the question and communicate results.
- Describe and use the concept of probability in relationship to likelihood and chance.

Building upon knowledge and skills gained in the preceding grade, by the end of **Grade 1**, students will know:

1. Demonstrate and apply a knowledge and sense of numbers.

- Use real-life experiences, physical materials and technology to construct meanings for whole numbers, commonly used fractions and decimals.
- Understand our numeration system by modeling, counting, grouping and using place-value concepts.
- Use numbers to count, as measures, labels and as indicators of location.
- Use models and pictures to demonstrate understanding of equivalent forms of numbers.
- Develop meaning for the operations by modeling, comparing and discussing a variety of problem situations.
- Develop proficiency with basic addition, subtraction, multiplication and division facts through the use of a variety of strategies and contexts.
- Understand and use relationships among operations (e.g., multiplication is repetitive addition; multiplication is the opposite of division).

2. Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.

- Explore, construct and use a variety of estimation strategies.
- Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.
- Use estimation to determine the reasonableness of an answer.
- Visually estimate length, area, volume and angle using various referents.
- Apply estimation when working with quantities, measures and problems.
- Describe simple ratios when comparing quantities.
- Use and describe measures of length, distance, capacity, mass, area, volume, time, temperature and angle.
- Develop and use personal referents, such as fingers and arm spans, as estimates for standard units of measure.
- Select and use appropriate standard and nonstandard units of measurement to solve problems.

3. Use Algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

- Represent numerical situations using variables, expressions, equations and inequalities.
 - Write and solve number sentences that describe real-life situations.
 - Classify data according to attributes.
 - Use diagrams and models of simple networks that represent everyday situations.
 - Follow, devise and describe practical algorithmic procedures.
- 4. Use Geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.**
- Describe, model, draw and classify shapes.
 - Investigate and predict the results of combining, subdividing and changing shapes.
 - Identify and use geometric shapes in various orientations, including rotations, reflections and translations.
 - Use real-life experiences, concrete objects and technology to explore and understand properties of 2 and 3 dimensional geometric shapes.
 - Explore relationships among and properties of shapes, such as congruence, similarity and symmetry.
 - Reproduce, extend, describe and create patterns and sequences using a variety of materials and attributes.
 - Use tables and graphs to display pattern data and explore a variety of ways to write rules that describe patterns and relationships.
- 5. Collect, organize and analyze data using statistical methods to predict results and interpret uncertainty and change in practical applications.**
- Pose questions, make predictions and solve problems that involve collecting, organizing and analyzing data.
 - Construct, read and interpret displays of data such as pictographs and bar and circle graphs.
 - Make inferences and formulate hypotheses based on data.
 - Generate and analyze data obtained from such chance devices as spinners and dice.
 - Develop intuition about the probability of various real-world events.
- Make predictions that are based on intuitive and experimental probabilities

New Jersey Core Curriculum Content Standards for Science Integrating Science, Math and Technology

All students in grades **K-1** will develop problem solving, decision-making and inquiry skills, reflected by formulating usable questions and hypotheses, planning experiments, conducting systematic observation, interpreting and analyzing data, drawing conclusions and communicating results.

1. Habits of mind

- Raise questions about the world around them and be willing to seek answers through making careful observations and experimentation.
- Keep records that describe observations from ideas and speculations and are understandable weeks and months later.
- Recognize that when a science investigation is replicated, very similar results are expected.
- Know that when solving a problem it is important to plan and get ideas and help from other people.

2. Inquiry and problem solving

- Develop strategies and skills for information-gathering and problem solving using appropriate tools and technologies.
- Identify the evidence used in an explanation.

3. Safety

- Recognize that conducting science activities requires an awareness of potential hazards and the need for safe practices.
- Understand and practice safety procedures for conducting science investigations.

4. Cultural Contributions

- Describe how people in different cultures have made and continue to make contributions to science and technology.

5. Historical Perspectives

- Hear, read, write and talk about scientists and inventors in historical context.

6. Mathematical Applications

- Determine the reasonableness of estimates, measurements and computations of quantities when doing science.
- Recognize and comprehend the orders of magnitude associated with large and small quantities.
- Express quantities using appropriate number formats, such as integers and fractions.
- Select appropriate measuring instruments based on the degree of precision required.
- Use a variety of measuring instruments and record measured quantities using the appropriate units.
- Identify patterns when observing the natural and constructed world.
- Use tables and graphs to represent and interpret data.

7. Technology

- Select and use simple tools and materials to complete a task.

- Make a plan in order to design a solution to a problem.
- Describe a toy or other familiar object as a system with parts that work together.
- Distinguish between things that occur in nature and those that have been designed to solve human problems.
- Demonstrate how measuring instruments are used to gather information in order to design things that work properly.
- Choose materials most suitable to make simple mechanical constructions.
- Use the design process to identify a problem, look for ideas and develop and share solutions with others.
- Describe a product or device in terms of the problem it solves or the need it meets.

8. Characteristics of Life

- Investigate the basic needs of humans and other organisms.
- Compare and contrast essential characteristics that distinguish living things from nonliving things.
- Recognize that different types of plants and animals live in different parts of the world.
- Recognize that some kinds of organisms that once lived on earth have completely disappeared.
- Recognize that humans and other organisms resemble their parents.
- Identify the roles that organisms may serve in a food chain.
- Differentiate between the needs of plants and those of animals.
- Recognize that plants and animals are composed of different parts performing different functions and working together for the well being of the organism.
- Describe the basic functions of the major systems of the human body including the digestive system, circulatory system, respiratory system, nervous system, skeletal system, muscular system and reproductive system.
- Develop a simple classification scheme for grouping organisms.
- Recognize that individuals vary within every species, including humans.
- Identify different stages in the lives of various organisms.

9. Chemistry

- Sort objects according to the materials from which they are made or their physical properties and give a rationale for sorting.
- Use magnifiers to observe materials, then draw and describe what more can be seen using the tools.
- Observe that water can be a liquid or a solid and can change from one form to the other.
- Sort materials based on physical characteristics that can be seen by using magnification.
- Observe that water can be a liquid or a solid and can change from one form to the other and the mass remains the same.
- Recognize that water, as an example of matter, can exist as a solid, liquid or gas and can be transformed from one state to another by heating or cooling.
- Show that not all materials respond the same way to what is done to them.

- Combine two or more materials and show that the new material may have properties that are different from the original material.

10. Physics

- Distinguish among the different ways objects can move (e.g., fast and slow, in a straight line, in a circular path, back and forth).
- Show that the position and motion of an object can be changes by pushing or pulling the object.
- Demonstrate that sound can be produced by vibrating objects.
- Recognize that changes in the speed or direction of a moving object are caused by force and that the greater the force, the greater the change in motion will be.
- Recognize that some forces can act at a distance (e.g., gravity, magnetism, static electricity)
- Identify sources of heat and demonstrate that heat can be transferred from one object to another.
- Identify sources of light and demonstrate that light can be reflected from some surfaces and pass through others.
- Use devices that show electricity producing heat, light, sound and magnetic effects.
- Show that differences in sound (loud or soft, high or low) can be produced by varying the way objects vibrate.

11. Earth Science

- Observe and describe rocks and soil.
- Identify the sources and uses of water.
- Recognize that water can disappear (evaporate) and collect on cold surfaces (condense).
- Describe current weather conditions and recognize how these conditions affect our daily lives.
- Describe daily and seasonal changes and patterns in the weather.
- Record observations that describe the features of the natural world in their local environment.
- Observe that most rocks and soils are made of several substances or minerals.
- Observe that properties of soil vary from place to place and will affect the soil's ability to support life.
- Recognize that air is a substance that surrounds us, takes up space, and moves around us as wind.
- Recognize that most of Earth's surface is covered by water and be able to identify the characteristics of those sources of water (e.g., oceans, rivers, lakes, underground sources, glaciers).
- Observe weather changes and patterns by measurable quantities such as temperature, wind direction and speed, and amounts of precipitation.
- Observe that when liquid water disappears, it turns into a gas (vapor) in the air and can reappear as a liquid when cooled, or as a solid if cooled below its freezing point.

- Observe that rain, snow and other forms of precipitation come from clouds, but that not all clouds produce precipitation.
- Recognize that some changes of the Earth's surface are due to slow processes such as erosion and weathering, and some changes are due to rapid changes such as landslides, volcanic eruptions and earthquakes.
- Recognize that moving water, wind, and ice continually shape the Earth's surface by eroding rock and soil in some areas and depositing them in other areas.
- Use maps to locate and identify physical features on the Earth.

12. Astronomy and Space

- Recognize that the sun supplies light and heat to the Earth.
- Observe the patterns of day and night and the movements of the shadows of an object on the Earth during the course of the day.
- Recognize that the sun can only be seen during the day, but the moon can be seen sometimes at night and sometimes during the day.
- Observe that stars are many, scattered and different in brightness.
- Observe that the position of the stars, with respect to each other (constellations) is unchanging.
- Observe patterns that result from the Earth's position relative to the sun and rotation of the Earth on its axis.
- Recognize and describe the phases of the moon.
- Describe Earth as one of several planets that orbit the sun and the moon as a satellite of the Earth.
- Observe that stars are not all the same in brightness, size and color.
- Recognize the images of celestial objects can be magnified and seen in greater detail when observed using binoculars and light telescopes.
- Observe and record short-term and long-term changes in the night sky.

13. Environmental Studies

- Associate organisms' basic needs with how they meet those needs within their surroundings.
- Identify various needs of humans that are supplied by the natural or constructed environment.
- Differentiate between natural resources that are renewable and those that are not.
- Explain how meeting human requirements affects the environment.

New Jersey Core Curriculum Content Standards for Social Studies The TCI Approach

By the end of **Grade 1**, students will learn important social studies skills using “My School and My Family” and “My Community.”

1. Social Studies Skills

- Explain the concepts of long ago and far away.
- Apply terms related to time including past, present and future.
- Develop simple time lines.

2. Civic Life, Politics and Government

- Explain the need for rules, laws and government.
- Give examples of authority and recognize problems that might arise from lack of effective authority.
- Explain that a responsibility means something you must or should do.
- Explore basic concepts of diversity, tolerance, fairness and respect for others.

3. Citizenship

- Identify examples of responsible citizenship in the school setting.
- Describe how American citizens can participate in community and political life.
- Identify symbols of American values and beliefs such as the American Flag and the Statue of Liberty.
- Recognize real people and fictional characters who have demonstrated responsible leadership and citizenship and identify the characteristics that have made them good examples.

4. International Education: Global Challenges, Cultures and Connections

- Identify traditions and celebrations of various cultures (e.g., Chinese New Year, Cinco de Mayo).
- Participate in activities such as dance, song, and games that represent various cultures.

5. Family and Community Life

- Recognize change and continuity in their lives.

6. State and Nation

- Recognize the names of major figures in American history, including George Washington, Abraham Lincoln, Sacajawea, Harriet Tubman, Susan B. Anthony and Martin Luther King Jr.
- Discuss the contributions of important women, African Americans and Native Americans to United States and New Jersey history.
- Relate why important national buildings, statues and monuments are associated with our national history.

7. Economics

- Identify the basic goods and services a family needs for everyday life.
- Identify various jobs and explain how workers in these jobs receive income for their work.

8. Geography

- Explain the spatial concepts of location, distance and direction including the location of school, home, neighborhood, community, state and country. The relative location of the community and places within it and the location of continents and oceans are explored.
- Demonstrate basic globe and map skills. Explain that the globe is a model of the earth and maps are representations of local and distant places.
- Describe the physical and human characteristics of places.
- Describe the physical features of places and regions on a simple scale.

9. Environment and Society

- Describe the role of resources such as air, land, water and plants in everyday life.
- Act on small-scale, personalized environmental issues such as littering and recycling and explain why such actions are important.

New Jersey Core Curriculum Content Standards for Visual and Performing Arts

By the end of **Grade 1**, students will observe the four art forms of dance, music, theater and visual art, explain that these four forms can generate personal feelings and interpret the basic elements of style in these four art forms as the foundation for creative projects.

1. Dance

- Perform planned and improvised dance sequences using the elements of time, space/shape and energy.
- Communicate through the creation and performance of planned and improvised sequences in response to rhythm and variations in tempo.
- Create and perform using objects and other art forms as creative stimuli for dance.
- Perform such movements as bending, twisting, stretching and swinging using various levels in space.

2. Music

- Clap, sing or play from simple notation that includes pitch, rhythm, dynamics and tempo.
- Vocalize familiar and unfamiliar songs and demonstrate appropriate posture and breathing technique while performing songs.
- Improvise short tonal and rhythmic patterns.

3. Theater

- Portray characters and describe basic plots and themes in creative drama.
- Experiment with the use of voice and movement in creative drama and storytelling.
- Employ theatrical elements to create and express stories in various cultural settings.
- Show how different uses of and approaches to theater can communicate experiences.

4. Visual Art

- Create works of art using the basic elements of color, line, shape, form, texture and space for a variety of subjects and basic media.
- Cite basic visual art vocabulary used to describe works of art.
- Present completed works of art in exhibition areas inside and outside the classroom.
- Recognize how art is a part of everyday life.

New Jersey Core Curriculum Content Standards for Health and Physical Education

By the end of **Grade 1**, students will be able to:

1. Movement Concepts

- Perform locomotor (walk, run, jump), non-locomotor (bend, reach, turn) and manipulative (throw, strike, kick) movement skills.
- Modify basic movement skills by applying movement concepts (direction, speed), biomechanical principles (force, projection) and rhythm (tempo, beat).
- Adapt movement skills in relation to objects, other participants and boundaries.
- Combine movement skills to participate in physical activities such as games, sports and lifetime recreational pursuits.
- Describe when, where and how to use and adapt specific movement skills and concepts in physical activities

2. Fitness Concepts

- Participate and enjoy aerobic workout which proceed from warm-up to cool down.
- Participate and enjoy workouts involving strength and endurance.
- Do simple yoga poses
- Understand meditation techniques and the benefits
- Use movement as a way to reduce stress and be in the “zone”.

3. Health

- Identify the common symptoms of illness and recognize that people can heal themselves.
- Turn the faucets off with paper towels to help stop the spread of germs.
- Become aware of the relationship of respiration, heart rate and recovery to physical fitness.
- Identify various feelings and describe the physical and emotional reactions of the body to intense positive and negative feelings.
- Identify what parents do to provide a safe, healthy environment for their children
- Identify tooth functions and causes of functions health and decay and apply proper dental health skills (such as choosing healthy tooth snacks, brushing, flossing).
- Define health goals, differentiate between long and short term goals and set a personal health goal to track progress.
- Demonstrate decision making and refusal skills in situations affecting health and safety.
- Examine the three domains of health: physical, social, emotional and intellectual along with healthful and risky behaviors.
- Explain contagious and non-contagious diseases.
- Identify common health products and foods found in the home and correctly interpret health, information, directions and warnings.

4. Safety

- Name persons and community helpers (e.g., police, fire fighters and emergency medical personnel) who can be contacted to help with health, safety and injury prevention.
- Describe personal responsibility for reducing hazards and avoiding accidents.
- Describe potentially dangerous or threatening situations related to childhood, develop personal protection strategies and cite resources for help. The students will be able to discuss safety in threatening situations, thinking critically and developing ways to say no.
- Demonstrate decision making and refusal skills in situations affecting health and safety.

5. Violence Prevention

- When using conflict mediation, children learn skills necessary to reach peaceful solutions. These skills include: communication, compromise, the ability to see how different aspects of a dispute are related, and the ability to consider their own perspective as that of another person.
- Describe the concept of friendship and contrast qualities that strengthen or weaken a friendship.
- Describe how culture and the media affect the ways individuals communicate, show emotions and cope with stress.