Typical Course of Study: Kindergarten

Kindergarten Math

Numbers and Counting
- Count to 100 by ones and by tens
- Count forward from a given number (instead of beginning at 1)
- Write numbers from 0 to 20
- Recognize and name written numerals to 100
- Understand that a number represents a quantity
- Recognize and describe the concept of zero
- Count objects in one-to-one correspondence saying number names in order
- Understand that each successive number name refers to a quantity one larger than the last
- Count a number of objects from 0 to 20 and name the set with a written numeral
- Understand that the last counting word tells “how many” in the set
- Count to answer “How many?” about 0-20 items arranged in a line, rectangle, or circle
- Compare numbers and quantities with the words
- Without counting, give number of objects in a set (up to four objects)
- Estimate the number of objects in a small set

Measurement and Data
- Describe measurable attributes of an object (height, weight, length, etc.)
- Classify objects and count number of objects in a category
- Compare objects in shape and size
- Compare objects by length, weight, or capacity, using such words as longer, shorter, bigger, smaller, heavier, lighter, taller, and shorter
- Put 3-10 objects in size order by some attribute
- Know that units are used to measure (pounds, minutes, feet, quarts, meters, etc.)
- Measure length with such units as toy blocks or similar objects safe for age range
- Estimate simple measurements
- Discuss such units of time as seconds, minutes, hours, days, weeks, and years

Numbers and Operations
-Compose and decompose numbers from 11 to 19 into ten ones and additional ones using drawings and objects
- Show compositions or decompositions with drawings or written equations (16 = 10 + 6)
- Understand that the numbers 11-19 are composed of ten ones and 1, 2, 3, 4, 5, 6, 7, 8, or 9 ones

Geometry and Spatial Relationships
- Describe positions of things in relation to other things (in, on, under, up, down inside, outside, behind, in front, between, and beside)
- Describe positions of objects in relation to other objects
- Identify, name, and describe a square, circle, oval, triangle, rectangle, and hexagon
- Find and name shapes in the environment
- Identify shapes as two-dimensional (flat) or three-dimensional (solid)
- Create shapes and compose shapes from other shapes
• Analyze and compare the parts and characteristics of two- and three-dimensional shapes in different sizes and positions
• Sort items according to their shapes (regardless of size)
• Build and draw shapes
• Combine simple shapes into larger shapes
• Combine shapes to create a picture or design
• Sort and classify objects by one or more characteristics into two or more groups
• Recognize simple repeating patterns
• Extend and create simple repeating patterns

Mathematical Operations and Algebra
• Represent addition and subtraction with fingers, objects, claps, drawings, explanations, or number sentences or phrases
• Understand addition as putting together and adding to
• Understand that “adding more” increases the number of objects in a set
• Understand subtraction as taking apart and taking from
• Understand that subtracting (“taking away”) items from a set makes a smaller set
• Use objects, drawings, and written number sentences to solve addition and subtraction problems within 10 (including word problems)
• Decompose numbers 0 to 10 into pairs using objects or drawings and written number sentences (6 = 4 + 2 or 6 = 3 + 3)

Kindergarten Language Arts

Reading
• Look at pictures in books and pretend to read
• Show motivation to read; ask to be read to
• Is read to frequently
• Has own books
• Understand that print is something to be read and has meaning
• Understand that spoken words are represented by written words
• Understand that printed words are separated by spaces
• Identify and show an interest in many different kinds of texts
• Takes care of books; identify title, cover, author, and illustrator of book
• Recognize that letters form words and words form sentences
• Follow words from left to right and top to bottom
• Recognize own name and common words in print
• Recognize and name all uppercase and lowercase letters
• Recite the alphabet
• Recognize that letters have sounds
• Pronounce the most common sound for each letter
• Identify beginning, ending, and middle sounds in a word
• Pronounce words, one sound at a time
• Make new words from one-syllable words by changing a sound (cat from rat, mud from mad, lid from lip)
• Match and produce words that rhyme
• Hear and say separate syllables in words
• Orally blend sounds and syllables into words
• Read some common words by sight
• Retell familiar stories, including key sequence and details
• Identify events, characters, and settings in a story
• Identify the main topic and key details in an informational text
• Ask and answer questions about details in a text
• Describe the relationships between pictures and text
• Compare and contrast events or details in two stories or texts
• Tell why an author wrote a text and how he or she accomplished the purpose
• Tell or try to determine the meanings of simple words from texts
• Read grade-level texts with understanding
• Take part in group reading activities and discussions

Writing and Representing
• Understand that writing is a way to communicate meaning
• Print own first and last name
• Write many uppercase and lowercase letters
• Write letters to represent words
• Express ideas from a text by drawing, dictating, or writing
• Use pictures, designs, scribbles, and letters to represent events, objects, ideas, information, or stories
• Create drawings, designs, written words, or made-up words to express opinions or preferences, or to give information
• Use a combination of drawing, dictating, and writing to narrate a story or event
• Use invented spelling to form words, phrases, or sentences
• Explore digital tools to produce and publish writing
• Participate in group research and writing projects

Speaking, Listening, and Viewing
• Speak clearly enough to be understood and at an appropriate volume
• Speak in complete and increasingly complex sentences
• Understand and use an increasing number and variety of words
• Learn and follow age-appropriate rules of standard English grammar
• Speak to give a point of view or opinion, and to express thoughts and feelings
• Speak to describe, clarify, negotiate, or persuade
• Describe familiar people, places, things, and events with some detail
• Describe relationships among objects, events, and people
• Tell a story
• Retell a story or recount information gained through listening
• Respond appropriately to questions
• Take part in conversations with adults and peers
• Learn and follow rules for listening, speaking, and discussing
• Show understanding of spoken directions
• Show attentiveness to presentations
• Learn new vocabulary through listening
• Put ideas in sequence after listening to a story, instructions, or an explanation
• Make sense of pictures, symbols, and other visual features
• Ask and answer questions about presentations heard or viewed
• Draw conclusions based on information from digital and visual media

Kindergarten Science

Approach to Science
• Show curiosity about the world
• Use senses and tools to observe, investigate, ask questions, solve problems, and draw conclusions
• Describe what he or she wants to learn from a science investigation
• Ask “Why?” “How?” and “What if?” questions
• Try to answer how and why about what happened
• Use measurement and other math processes to gather information
• Collect, describe, record, and communicate information
• Explain, predict, analyze, and generalize about a science event
• Suggest solutions or answers and give evidence for the answers
Earth and Space Science
- Describe physical properties of soil and rocks
- Describe characteristics of soil, water, and air
- Observe and describe objects in space
- Observe and describe apparent movements of objects in space
- Describe changes in weather and seasons
- Discuss ways the environment provides resources for people
- Discuss some ways to protect the environment
- Describe weather and climate in terms of sunlight, precipitation, and temperature in a region
- Share observations of local weather
- Notice and record weather and climate patterns over time
- Discuss ways that animals and plants change their environment
- Draw or describe the relationship between needs of different plants and animals in the places they live (in such a setting as a desert or meadow)
- Describe ways to reduce people’s adverse impact on land, water, air, living things
- Describe ways people use natural resources to get things they need

Life Science
- Describe the differences between living and nonliving things
- Describe the basic needs of living things
- Describe sources of food for plants and animals
- Describe sources of water and light for plants and animals
- Understand that living things grow and change
- Observe, describe, compare, and discuss living things
- Match plants and animals to their habitats
- Describe how animals resemble their parents
- Identify ways living things change as they grow
- Recognize seasonal changes in plants and animals
- Name external parts of some plants and animals
- Describe simple life cycles (butterfly or frog)
- Show respect for living things

Physical Science
- Observe, describe, and compare physical properties of objects (size, texture, shape, weight, color, freezing and melting, sinking or floating, etc.)
- Compare and sort objects according to physical attributes
- Identify such sources of energy as light, heat, and electricity
- Identify solids and liquids
- Understand that liquids take the shape of their containers
- Describe effects of common forces (pushing and pulling, kicking, wind, gravity, magnetism, etc.)
- Describe specific interactions between objects when they collide or touch
- Describe effects of smaller or bigger forces
- Observe the effects of sunlight on Earth’s surface
- Design a structure to reduce the effects of sunlight on a specific area

Kindergarten Social Studies

Self, Family, and Community
- Identify personal family and community
- Recognize similarities and differences in people and families
- Discuss what it means to be a member of a family and a community
- Describe features of communities and neighborhoods
- Identify cultural traditions of one’s own family or community
- Identify personal likes, dislikes, talents, and skills
- Understand and describe self as a learner
Identify ways people learn from their families and communities
Show understanding and appreciation of diversity (racial, ethnic, religious, national origins, beliefs, traditions, family structures, etc.)

Citizenship
Describe rights and responsibilities of children as members of a family, school, community, nation, and world
Explain the importance of cooperation in a group
Understand the need for rules at home or school
Understand the need for laws in the community
Discuss routines and rules that help keep people safe and healthy
Identify own country, state (province or territory), and symbols such as the flag
Experience opportunities to vote to make simple decisions
Identify important cultural traditions, holidays, and symbols of one’s own country
Identify the capital of the country and some national holidays
Identify the president (head of state/head of government) of the country and some local or state (provincial or territorial) leaders

History
Tell the difference between past, present, and future events
Show a basic awareness of personal and family history
Describe ways family histories are shared and passed down
Describe traditions and values of own family and other families
Identify some important events that happened in the distant or recent past
Describe how things change over time
Put events in sequential order

Geography
Recognize that maps and globes are representations of the Earth’s surface
Describe or draw maps of own home, school, community
Locate home, school, community on maps
Use directions to describe relative locations of familiar places
Describe topographical features of own neighborhood or state (province or territory)
Become familiar with maps of the United States (or home country) and world
Discuss ways that people are affected by and adapt to their physical environment
Discuss ways people can take care of their environment

Economics
Understand that people need food, clothing, and shelter
Identify and distinguish between needs and wants
Discuss ways families make choices to meet their needs and wants
Identify examples of scarcity and choices made due to scarcity
Identify examples of goods and services
Understand that money or trade is used to get goods or services
Understand that money comes in different forms
Identify some of the ways families get money
Recognize jobs in the community and the work people do

Kindergarten Health and Safety
Define and give examples of health choices and their consequences
Practice good personal hygiene
Take measures to prevent the spread of disease
Identify and make healthy food choices
• Participate regularly in active play and other physical activities (contingent on any physical or other limitations)
• Understand reasons to get enough sleep and relaxation
• Learn and follow safety rules during play and daily activities (walking, being near streets, water play, riding in a car, biking, etc.)
• Name objects that may be dangerous
• Recognize and discuss causes and symptoms of common illnesses
• Discuss and use behaviors to prevent poisoning
• Know the basic structures and functions of the human body
• Identify health services in own community
• Distinguish between helpful and harmful situations
• Recognize and follow practices for responding to emergencies
• Know how to get out of house or school in event of fire
• Use telephone in emergency; provide name, address, and telephone number
• Show appropriate behavior during fire, earthquake, and other disaster drills
• Display appropriate skills to identify, avoid, report, and cope with potentially dangerous situations
• Understand and show ways to interact safely with strangers
• Identify safe behaviors when uncomfortable or unsafe around another person
• Show development of self-confidence and self-esteem
• Demonstrate respect and consideration for all individuals
• Develop resiliency and bonds with peers and adults
• Identify, express, and manages feelings appropriately
• Develop and display effective coping strategies
• Avoid self-destructive behaviors
• Show positive social and practices with peers, in home, and community
• Show understanding of and respect for individual differences
• Identify and discuss bullying behaviors
• Identify and demonstrate alternative behaviors to bullying
• Describe appropriate responses to bullying of self or others
• Describe how to get help in solving conflicts with peers

Kindergarten Arts
(NB: Contingent on physical or other limitations.)

• Experiment with musical instruments
• Move to different musical beats and rhythms
• Perform and create artistic movements and patterns
• Read, write, and perform simple patterns of sounds and rhythms
• Use voice to speak, chant, sing
• Improvise music with instruments
• Listen to, describe, and respond to a variety of music
• Experience and describe music representing different cultures
• Identify some common musical instruments by sight and sound
• Sing age-appropriate songs with accuracy from memory
• Act out events or stories using language and objects
• Improvise dramatizations of stories or ideas
• Take part in experiences in script writing, making props and sets, and acting
• Observe patterns in nature and works of art
• Experiment with visual art using a variety of materials and techniques
• Create and share original works of visual art in various media and dimensions
• Express observations, ideas, or feelings through music, drama, or visual art
• Identify and discuss some well-known works of dance, drama, music, and visual arts and some artists, actors, writers, musicians, choreographers, or composers
• Describe and respond to creative works
• Learn and use vocabulary of dance, music, drama, and visual arts
• Use several forms of art for self-expression of ideas, personality, or thoughts
• Demonstrate appropriate audience skills while watching live performances

Kindergarten Technology
• Identify basic parts of technology systems
• Name input and output devices
• Identify and use applications of technology systems
• Use basic computer skills (turn on computer, use keyboard and mouse)
• Know and use skills and procedures for other devices (music players, tablets, smart phones, cameras, etc.)
• Open, label, save, and close files
• Follow directions to operate software programs
• Operate sound recording devices
• Identify ways technology is used in daily living
• Listen to texts presented in electronic forms
• Create songs, drawings, movies, or stories
• Communicate digitally with available technology
• Collaborate digitally with available technology
• Know and follow age-appropriate practices for safe use of technology
• Use accurate terminology related to technology
• Show appropriate care and maintenance for digital equipment
• Use technology devices for a variety of age-appropriate tasks