

**BUCKINGHAM BROWNE & NICHOLS
LOWER SCHOOL**



**CURRICULUM OVERVIEW
KINDERGARTEN
2011-2012**

Kindergarten Teachers

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*** Includes Language Arts, Mathematics and Social Studies instruction**

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Kindergarten Curriculum Overview

Homeroom

In Kindergarten, children develop and strengthen their social and academic skills through discussions, exploration, meetings, play, and small and whole group activities. Teachers strive to nurture Kindergartners' insatiable curiosity, while encouraging their growing independence and ability to work cooperatively within a group.

The goal in Kindergarten is to enable children to play and work together in a respectful, cooperative, and caring way. This involves self examination, building relationships with members of their immediate community, and learning about other communities. Teachers work to foster children's growing self-esteem and their joy of learning.

Language Arts

Kindergarten literacy is designed to build a love for and enjoyment of literature, to develop an understanding of oral and written communication, and to build confidence in the four components of literacy: reading, writing, speaking, and listening.

In Kindergarten, students:

- Build upon phonemic awareness skills by manipulating sounds and learning to discriminate between individual phonemes.
- Learn and apply sound-symbol relationships and begin to use phonetic skills to decode words.
- Participate in word-study activities to increase recognition of high frequency words.
- Explore multiple genres of literature.
- Retell stories, ask and respond to questions, and express thoughts and ideas regarding literature.
- Learn to use writing as a creative and effective form of communication through journal writing and Writer's Workshop.
- Continue to work on developing their letter formation through *Handwriting Without Tears*.
- Engage in strategy based guided reading groups.

A reading specialist works with the Kindergarten team to plan consistent, interconnected lessons and to provide additional support for children who are in need of further help developing language arts skills.

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Mathematics

The Kindergarten Math curriculum provides students with a strong foundation of fundamental skills and basic quantitative concepts. Our program emphasizes mathematical understanding and helps students to discover the everyday relevance and application of mathematical concepts. Students are challenged to become active learners who express and represent mathematical ideas and relationships in innovative ways. Whole class dialogues, peer investigations, and the use of manipulative resources ensure that students develop a strong conceptual understanding. The curriculum incorporates math exploration into daily classroom activities to promote practice, repetition, and the formation of real-life connections.

Through a hands-on approach to learning, children are exposed to a variety of math-related concepts including:

Number and Operation

- Count to 100 by ones and by tens.
- Count forward beginning from a given number within the sequence.
- Represent a number of objects with a written numeral 0 to 20.
- Understand the relationship between numbers and quantities.
- Compare two quantities or written numerals.
- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- Represent addition and subtraction with objects, fingers, drawings, verbal explanations, and equations.
- Solve addition and subtraction word problems, and add and subtract within 10.
- Decompose numbers less than or equal to 10 into pairs in more than one way (e.g., $5 = 4 + 1$ and $5 = 2 + 3$).

Patterns

- Sort, classify, and order objects by various properties.
- Recognize, describe, and extend patterns.
- Analyze how both repeating and growing patterns are generated.

Geometry and Spatial Sense

- Describe objects in the environment using names of shapes and describe the relative positions of these objects in space.
- Name, analyze, and compose two-dimensional and three-dimensional shapes.
- Investigate and predict the results of putting together and taking apart two- and three-dimensional shapes.

Measurement and Data

- Recognize, compare, and order measurable attributes.
- Understand how to measure using multiple nonstandard units.
- Pose questions and gather data.
- Represent data using concrete objects, pictures, and graphs.
- Interpret simple graphs.

Social Studies

The purpose of the social studies program is to build a strong classroom community and to expand the children's interest in their world. Students explore the meaning and importance of friendship and families and develop an understanding of their place in the classroom and school community. Students learn to take responsibility for their own actions and develop respect for themselves, each other, and our environment. As a part of Responsive Classroom, students work together to arrive at classroom rules and expectations in an effort to create a warm, safe and welcoming environment that encourages the growth and development of the whole child.

Students are exposed to the concepts of continents through our in depth study of the Continent of Africa. Throughout this unit of study, we focus on people, geography, wildlife, and communities both similar to and different from our own.

Science

Students use a hands-on inquiry based program to study science. This approach allows them to develop and use process skills in order to gain a body of scientific knowledge. The knowledge gained in the science lab is reinforced in the homeroom through continued exploration and activities. Listed below are the units of study and highlights of the content and skills covered.

What is around us? Practicing observation skills while exploring their own "backyard."

- Identify characteristics of living vs. non-living things, cutting and sorting magazine images that match those characteristics to make a living & non- living collage.
- Observe and differentiate living and non-living things while on a playground scavenger hunt.

Animal Observations

- Make detailed observations using the five senses to draw and describe the science room animals: Guinea pig, Sea Stars, Hermit Crabs, Leopard Gecko and Crickets.
- Record and make observations of the life cycle of a chick from the time eggs are in an incubator until the chicks are two weeks old.

Sound

- Experiment with tuning forks to discover that sound is vibrations that travel in waves.
- Make hypotheses to determine what types of vibrations make low and high- pitched sounds.
- Explore the sounds that animals make and use their knowledge of vibrations to construct "roaring lions" and "buzzing bees."

Balance and Center of Mass

- Identify the center of mass while balancing meter sticks.
- Make a "bag of tricks" that showcases the center of mass on asymmetrical objects.

Science (continued)

Newton's Laws of Motion

- Become familiar with the three laws of motion using toy cars and blocks, as well as construct "blow" rockets to learn about inertia, gravity, and friction.
- Construct roller coasters to solve physics challenges.
- Model the effects of inertia, friction, and gravity on a rollercoaster software program.

Weather

- Investigate and learn about cloud cover in relation to weather patterns.
- Construct cumulus, stratus and cirrus clouds.

Visual Art

In Art, Kindergartners describe, imagine, examine, and create. Children have the opportunity to explore ideas and art materials throughout the year. Students actively experience a variety of media and learn how to use simple tools and techniques to make works of art through:

- paint
- collage
- assembly
- drawing
- sculpting

Areas/Themes of focus include: nature, personal interest, classroom, and art/artists.

Library

Students visit the library once a week as a class, where they listen to stories, select books to take home, and begin to develop their library skills. The read aloud time provides an opportunity to:

- help children discover the joy of reading.
- enrich students' vocabulary and develop listening skills.
- talk about the role of the author and the illustrator.
- use picture clues to aid in understanding material.

When they sign out books, the students are able to choose from a variety of titles and genres as well as learn the responsibility of borrowing and returning a book within a given period of time. As the year progresses, students will learn:

- how the library is arranged by categories.
- what types of books can be found in the library.
- to distinguish between fiction and non-fiction.
- how to browse the library to find material of personal interest.

Parents are invited to visit the library and borrow books to read at home.

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Music

Kindergarten music activities center on the children's experience of music through singing, moving, listening, and playing instruments. The principles of Responsive Classroom are incorporated into each class to create a safe and nurturing learning environment for everyone.

The skills students develop include:

Rhythm

- Demonstrate pulse
- Identify and demonstrate pulse vs. rhythm.
- Experience moving to a variety of meters.

Melody

- Differentiate between high/low; experience up/down.
- Develop a repertoire of songs (folk/seasonal/multicultural).
- Experience vocal tone production and pitch matching, singing in a limited range.
- Explore barred instruments (xylophone/metallophone/glockenspiel).

Harmony

- Experience tonality differences.
- Sing/chant with teacher-accompanied Ostinato.

Form

- Experience phrase.
- Experience same/different.

Expressive Qualities

- Explore space in movement as related to pitch, beat, rhythm, tempo, and dynamics.
- Experience:
 - Tempo contrasts, dynamic contrasts, timbre contrasts.
 - Global music related to classroom themes.
 - Unpitched percussion technique.
- Create movement and music to accompany stories, rhymes, and poetry.

Physical Education

In Kindergarten, lessons continue to focus on the fundamental loco motor and non-loco motor movement skills. Students begin each year with a review of the different ways they have learned to move their bodies.

Play/ Movement Exploration:

- The Kindergarten students experience forming shapes and patterns with the body, rhythmic activities, and combining loco motor, non- loco motor, and manipulative skills into new patterns. Students experience body awareness, body support, and creative movement as they explore floor patterns, pathways, and body levels.

Manipulative Activities:

- Opposition and visual concentration are emphasized with skills including: throwing, kicking, bouncing, catching, passing, and rolling different balls, while varying or controlling the direction and force. The short and long jump ropes are introduced.

Loco-motor Skills:

- Learn our own personal and safe space while moving in the gym in a large group: jogging, running, moving while changing direction, learning to skip, gallop, slide, hop, and jump.

Non -Loco motor Skills:

- Stretching, lifting, creative movement in acting games

Rhythmic Activities:

- Music games and moving to music are introduced as the students experience tempo and rhythm, as well as dances in circles, lines, free dancing, and lumnie sticks.

Gymnastics:

- Mats are used for rolls, animal walks, and balance stunts. Work on the low balance beam is continued with more complex walks and balance stunts. Upper body strength develops on the rope ladder, climbing rope, and cargo net.

Group Games:

- The students learn to play as a group in running games that emphasize counting, colors, and imaginary themes while sharing equipment, taking turns, and practicing group respect.

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Spanish

Spanish for Kindergarteners builds upon the program started in Beginners. Students take part in activities and lessons in the target language. Acquired skills include:

- Sound recognition and pronunciation.
- Basic greeting and conversational phrases.
- Vocabulary that connects classroom content.
- Music, dance, and games from Spanish speaking countries.

Technology

Technology is integrated into the Kindergarten Curriculum to help extend and expand upon classroom investigations.

During technology class, students are introduced to various programs that support the classroom curriculum and help to develop their computer skills and literacy. The kindergarten computer skills focused on are:

- Learning about the various components of a computer system.
- Becoming proficient at basic operations related to the computer, such as using a mouse and locating items in a folder.

Homework

There is no formal, regularly assigned homework for children in Kindergarten. Parents are expected to read aloud to their children in those grades for a minimum of 15 minutes every day.

Responsive Classroom

Responsive Classroom is part of a school wide program to support the development in each individual of a core of important habits of mind that build the positive social emotional components for positive communication, character development, interpersonal relationships and responsibility to the broader school community. In the Kindergarten program we focus on the following skills.

- Build class rules and continue to work on being a successful community citizen.
- Develop morning meeting skills as active listeners, learn different greetings, practice eye contact and communicating with teachers or adults as well as peers.
- Speak assertively and respectfully in morning meetings.
- Show responsible behavior moving about campus, within classrooms, and on field trips.
- Learn to seek teacher mediation as needed to resolve conflicts, to use words over actions and to broaden base of friendships to include new friends.

