

## **Kindergarten Resources needed for JCESC Curriculum**

ELA

### Course Overview

In Kindergarten, students begin to create a strong foundation for reading, writing and communication. They do this with the help of an on-site mentor and an on-line VLA Teacher.

### **Reading**

One of the most basic components of reading is the skill of good listening. The auditory element of this virtual curriculum is quite strong, and young children will grow to love the colorful voices that direct the entire course. Students will hang on every word, and learning to listen will be great fun.

As children learn to sit quietly and listen, they will experience the important element of phonemic awareness, the ability to distinguish and identify the sounds of language. Identifying initial sounds and rhyming words is an auditory delight, and these experiences are exciting and entertaining as students anxiously click here and there on the computer keyboard to see what happens next.

The next step is to match these sounds with symbols they see on the computer screen and on the written page. This is phonic analysis, knowing the relationship between printed letters and spoken sounds and being able to apply that knowledge to unknown words in a text. Much of this is accomplished during shared reading of books in brightly moving units of study, such as “A Review: Race to the Finish.”

During this course, phonic analysis leads to the recognition of new words. That is, students build a reading vocabulary of sight words. Eventually, this skill will allow them to comprehend and not just process decoding. They will learn to both say the sounds of words and also identify words quickly while reading.

### **Writing**

The use of technology blended with traditional teaching strategies makes writing at the Kindergarten level both exciting and effective. At the beginning level, kindergartners explore the various purposes of writing, such as using a small range of familiar forms, like letters.

At first, children are engrossed in watching how upper and lower case letters are formed through animation on the screen. Next, they get to use their fine motor muscles as they print the

letters on Kindergarten paper for the VLA Teacher to see. Later, they use technology to see letters come alive to form words. Of course, the culminating step is to experience short sentences in fun and colorful ways right on the computer. Using such on-line offerings as models, students eventually print words and short sentences on paper for the VLA Teacher's close inspection and interaction with his/her students.

Good models are very important as students learn to master writing conventions. Once again, this virtual course provides many exciting templates as children begin to spell, punctuate, and use grammatical structures of English to effectively communicate ideas in writing and to express themselves.

## **Communication**

It is important that very young students learn to communicate effectively through exposure to well-versed models. The JCESC virtual program and the on-site mentors provide such models with plenty of opportunities for students to practice.

Even at this early age, students hone their communication skills by speaking, listening and providing and interpreting visual images. They do this by delivering presentations to audiences (brothers, sisters, mothers, friends, and even stuffed animals) that effectively inform or entertain their listeners.

All of these skills lead to easy, smooth reading; appropriate writing techniques; and effective oral and visual communication. Individual students achieve appropriate levels at various times. However, the goal of the JCESC virtual course is to help students use modern technology to build a foundation early in their school experiences that will support fluent reading; writing that meets the application and convention requirements; and proficient communication skills.

## Required Materials for English Language Arts Kindergarten (see below)

### **Unit 01: Names**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 02: Your Name, The Letter "A"**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 03: Apples 'N Letters Mm and Tt**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 04: Ducks 'N Letters Pp, Hh, and Ss**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 05: Peek-A-Boo Names N Trains with the Letters Ww, Ii, and Nn**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 06: Review Time 'N Color Words**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 07: Fun at the Zoo with Bb, Ll, and Vv**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 08: Colors Brighten Letters Rr, Ff, and Oo**

Kindergarten - Lined Writing Paper  
Student Name Tag

### **Unit 09: Building Blocks with Letters Gg, Jj, and Dd**

Kindergarten - Lined Writing Paper  
Student Name Tag

## Math

### Course Overview

#### Theme of the Kindergarten Virtual Mathematics Course

Kindergarten students are naturally inquisitive. Add to this the fact that rote numbering comes easily to them. This course joins curiosity and fact in an effective way by providing many colorful, hands-on activities to broaden initial memorized numbering skills and introduce the intricacies of mathematics. In addition, eager, young students are quite interested in their physical environments and relate easily to geometric ideas around them. The theme of this course, “Numbers and Geometric Ideas in the Physical Environment,” clearly proclaims the focus of the Kindergarten Virtual Mathematics course: Representing and Comparing Whole Numbers and Describing Shapes and Space.

#### Representing and Comparing Whole Numbers

Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as:

- Counting objects in a set
- Counting out a given number of objects
- Comparing sets or numerals
- Modeling simple joining and separating situations with sets of objects, eventually with equations such as  $5 + 2 = 7$  and  $7 - 2 = 5$

Students choose, combine, and apply effective strategies for answering quantitative questions, including:

- Recognizing the cardinalities of small sets of objects
- Counting and producing sets of given sizes
- Counting the number of objects in combined sets
- Counting the number of objects that remain in a set after some are taken away

#### Describing Shapes and Space

Students describe their physical world using geometric ideas such as:

- Shape, orientation, spatial relations
- Correct mathematical vocabulary
- Basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways
- Three-dimensional shapes such as cubes, cones, cylinders, and spheres
- Basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

## Presentation of the Kindergarten Virtual Mathematics Course

Animation, songs, poems and hands-on activities hold young students' interests as they explore the complexities of numbers and the geometric wonders of the world around them. They will experience all of this with the help of an on-site mentor and an on-line VLA Teacher.

[Required Materials for Math Kindergarten](#) (see below)

### **MATHKG: MATH KINDERGARTEN**

#### **Unit 01: Sorting, the Numeral Zero**

Ten M & M's

#### **Unit 02: Let's Sort Some More!**

Purchase or cut out: 2 small squares exactly the same size – 1 red and 1 blue; 2 larger squares exactly the same size – 1 red and 1 blue; 2 small circles exactly the same size – 1 red and 1 blue; pencil; paper; empty jar, several pennies

#### **Unit 03: I Spy a Pattern**

Cereal shaped like rings in assorted colors; string the size of a necklace to fit student

#### **Unit 04: Patterns, Pennies and Groups of 3**

M&M candies; colored linking cubes; container of coins containing more pennies than other coins; magnifying glass

#### **Unit 05: Relative Positions in Space**

Box of pattern blocks; plastic zip-top bag; few tablespoons of finger paint; piece of white paper, cotton-top swab (optional)

#### **Unit 06: Counting at the Circus**

Crayons

#### **Unit 07: Counting To Five and Nifty the Nickel**

One cup or empty flat-bottom ice cream cone; different kinds of cereal, small candy, chocolate chips or small crackers; container of coins (pennies, nickels, dimes and quarters);

#### **Unit 08: Fun All The Time**

A die(dice) and crayons.

#### **Unit 09: Days of the Week**

Glue

#### **Unit 10: What Happened First, Next and Last?**

Standard deck of cards without the jokers

## **Social Studies**

### Course Overview

The kindergarten year is the time for children to begin to form concepts about the world beyond their own classroom and communities. Culture, heritage and democratic principles are explored, building upon the foundation of the classroom experience. The following Kindergarten Social Studies Content Statements form the basis for students deepening their learning about themselves and beginning to form an understanding of roles, responsibility for actions, and decision making in the context of the group setting.

Time can be measured.

Personal history can be shared through stories and pictures.

Heritage is reflected through the arts, customs, traditions, family celebrations, and language.

Nations are represented by symbols and practices. Symbols and practices of the United States include the American flag, Pledge of Allegiance and the National Anthem.

Terms related to direction and distance, as well as symbols and landmarks, can be used to talk about the relative location of familiar places.

Models and maps represent places.

Humans depend on and impact the physical environment in order to supply food, clothing, and shelter.

Individuals are unique but share common characteristics of multiple groups.

Individuals have shared responsibilities toward the achievement of common goals in homes, schools and communities.

The purpose of rules and authority figures is to provide order, security and safety in the home, school, and community.

## Science

### Course Overview

Theme of the Kindergarten Virtual Science Course:

Kindergarten students are naturally inquisitive. They are curious about their physical environments and the myriad activities that take place within them. They have an intense desire to question and learn. The theme of this virtual science course, “Observations of the Environment,” builds upon the students’ curiosity and focuses on skills for systematic discovery of the physical world by using scientific inquiry.

Within this Kindergarten Virtual Science Course, scientific inquiry and its application require that all students:

- Observe and ask questions about the natural environment;
- Plan and conduct simple investigations
- Employ simple equipment and tools to gather data and extend the senses
- Use appropriate mathematics with data to construct reasonable explanations
- Communicate about observations, investigations, and explanations; and
- Review and ask questions about the observations and explanations of others.

Within this Kindergarten Virtual Science Course, scientific inquiry embraces the following topics:

- Changes on Earth, in the sky, plants, animals, their habitats and non-living things in their local communities
- The characteristics of objects, tools, materials, how they move, and whether or not they are natural or man-made
- The different ways people learn about science and interact with living things and the environment to promote respect for nature
- Knowledge of scientific concepts through demonstration of verbal and non-verbal skills and activities
- Presentation of the Kindergarten Virtual Science Course:
- Color, lively movement, and various child-friendly voices, both spoken and in song, hold young students’ interests as they learn to use scientific inquiry to answer their many questions about the environment. They will experience all of this with the help of an on-site mentor and an on-line VLA Teacher.

[Required Materials for Science Kindergarten](#) (see below)

## **SCIKG: SCIENCE KINDERGARTEN**

### **Unit 01: Learn About the Sun**

Metal rings, ribbon, string or cord, crayons

### **Unit 03: Moon Talk II**

Crayons, paste, tissue paper, moon decorations, mirror, flashlight

### **Unit 04: Weather Talk: Cloudy with a Chance of Rain**

Quart jar with lid, ice cubes, water, paper lunch bag, paper towel tube, 15-20 wooden tooth picks, 1 tablespoon beads or dried beans, kitchen knife, scissors, colored masking tape, pencil

### **Unit 05: Whatever the Weather Who has seen the Wind?**

Empty soda bottle balloon, hot water, cup, electric fan, paper airplane, feather, balloon, bubbles, clear jar with lid, liquid dish detergent, penny or marble, large plastic cup, straight pin, nail permanent marker, googly eyes, yarn pom-pom, cardstock

### **Unit 06: Whether the Weather Be... Oh, My! What will the Weather Be?**

Empty 2 liter bottle, scissors, permanent marker, watering can, large tray, rain gauge worksheet, large outdoor thermometer, thermometer worksheet, red crayon, bowl of ice cubes

### **Unit 07: Sing a Song of Seasons Winter Comes**

String, wide mouth jar, white pipe cleaners, blue food coloring (optional), boiling water (with grownup help), borax (available at grocery stores in the laundry soap section), pencil, string, wide mouth jar, white pipe cleaners, blue food coloring (optional), borax (available at grocery stores in the laundry soap section), pencil, popcorn, cranberries, peanut butter, suet (from the butcher), peanuts in shells, apples, pears, oranges, kiwi, string, needle and strong thread, scissors and knife, pine cone (to use with the peanut butter), onion bag (to use with suet)

### **Unit 08: Sing a Song of Seasons Spring has Sprung**

Ball, magic marker, flashlight, small mirror and glass of water, garden hose, cup of milk, 4 slices of white bread, 4 tablespoons of sugar, 4 plastic cups, 4 food colorings, toaster, glue, scissors, crayons, print out of basket, ribbon, real flowers

### **Unit 09: Sing a Song of Seasons Summer Time!**

16 ounces of bubble solution, 1.5 cups of water, 4 tablespoons of dishwashing liquid, 4 tablespoons of light corn syrup, ½ cup dishwashing liquid, 4 ½ cups water, 4 tablespoons