

# KEY CONCEPTS AND TEKS ALIGNMENT

## THE MYSTERY PRESENT (TM)

---

### KEY CONCEPTS

Did you know that . . .

- One of the basic concepts needed in coding is understanding symbols are used to represent words, letters, figures, or numbers. Coding arranges symbols in a pattern or sequence to create a reaction.
- Children will go on an adventure with Nico and Zoe as they use coding to open the lock of a Toy Box containing souvenirs from their Auntie Jasmine!
- Using dress-up materials through play is a fun way to encourage a creative mindset.
- Most engineers started out by building with blocks!
- The way that materials are arranged can affect the strength of a structure.
- Clues can be used to help solve mysteries.
- Architects and engineers must think about the weather and the movement of the Earth when they design structures.
- When dropped into a liquid, an object pushes away a portion of the liquid. The amount of liquid that is pushed away is equal to the amount of space the object occupies.
- Primary colors can be mixed to create secondary colors.
- If you put one end of a paper towel into an empty cup and the other end into a cup with water, the water will move to the empty cup through a process called Capillary Action. The water will stop moving once each cup has an equal amount of water!
- Displacement is the way an object pushes water out of the way. It is a scientific concept that helps us understand why boats float.
- Buoyancy is an upward force that helps objects float in a liquid. An object's buoyancy is equal to the weight of liquid that is pushed away by the object when it is placed in the liquid.
- An object will float if its density is less than the water's density.
- A circuit allows a flow of electrons to run from a power source, such as a battery, to an object requiring power, such as a light bulb.
- It can be helpful for children to act out various science concepts, in order to better understand them.
- Children grow their STEM confidence as they put a circuit together and light a light bulb.
- An electric circuit is a pathway through which electrons can flow.
- Circuits power many different machines, devices, and objects in our world.
- Sometimes role playing scientific concepts can help us better understand them.
- Bubbles blown into the air take the shape of a sphere—a round ball.
- Even if a bubble wand is square, the bubbles it makes will be round.
- Considering "what is missing" and/or does not exist is a great way to start thinking of invention possibilities.
- Almost any object with an opening can be used to make bubbles,.
- Patterns in nature can inspire patterns in music!
- Motors powered by batteries in a circuit are used to provide movement in many different objects.
- Tail fins on fish provide thrust to propel the fish forward, and the top and bottom fins help balance the fish as it swims. The top fin enables the fish to swim straight.
- A habitat is the natural home or environment of an animal, plant, or other organism.
- Keeping fish and decorating aquariums is a popular hobby that gives people the opportunity to explore ecosystems right in their own home.
- Fish swim and hide amongst aquarium decor as they move around their environment.

- Accessories for pets can be inventions too.

# KEY CONCEPTS AND TEKS ALIGNMENT

---

## I. SOCIAL AND EMOTIONAL DEVELOPMENT DOMAIN

### A. SELF CONCEPT SKILLS

- I.A.1. Child is aware of where own body is in space and respects personal boundaries.
- I.A.2. Child shows self awareness and can express pride in age appropriate abilities and skills.
- I.A.3. Child shows reasonable opinion of his own abilities and limitations.
- I.A.4. Child shows initiative in independent situations and persists in attempting to solve problems.

### B. SELF REGULATION SKILLS

- I.B.1.a. Child follows classroom rules and routines with occasional reminders from teacher.
- I.B.1.b. Child takes care of and manages classroom materials.
- I.B.1.c. Child regulates his own behavior with occasional reminders or assistance from teacher
- I.B.2.a. Child begins to understand difference and connection between emotions/feelings and behaviors.
- I.B.2.b. Child can communicate basic emotions/feelings.
- I.B.3.a. Child sustains attention to personally chosen or routine (teacher directed) tasks until completed.
- I.B.3.b. Child remains focused on engaging group activities for up to 20 minutes at a time.

### C. RELATIONSHIPS WITH OTHERS

- I.C.1. Child uses effective verbal and non verbal communication skills to build relationships with teachers/adults
- I.C.2. Child assumes various roles and responsibilities as part of a classroom community.
- I.C.3. Child shows competence in initiating social interactions.
- I.C.4. Child increasingly interacts and communicates with peers to initiate pretend play scenarios that share a common plan and goal.
- I.C.5. Child initiates problem-solving strategies and seeks adult help when necessary.
- I.C.6. Child demonstrates empathy and caring for others.
- I.C.7. Child interacts with a variety of playmates and may have preferred friends.

## D. SOCIAL AWARENESS SKILLS

### A. LISTENING COMPREHENSION SKILLS

- II.A.1. Child shows understanding by responding appropriately.
- II.A.2. Child shows understanding by following two-step oral directions and usually follows three step directions.
- II.A.3. Child shows understanding of the language being spoken by teachers and peers.

### B. SPEAKING (CONVERSATION) SKILLS

- II.B.1. Child is able to use language for different purposes.
- II.B.2. Child engages in conversations in appropriate ways.
- II.B.3. Child provides appropriate information for various situations.
- II.B.4. Child demonstrates knowledge of verbal conversational rules
- II.B.5. Child demonstrates knowledge of nonverbal conversational rules.
- II.B.6. Child matches language to social contexts.

## II. LANGUAGE AND COMMUNICATION

### A. LISTENING COMPREHENSION SKILLS

- II.A.1. Child shows understanding by responding appropriately.
- II.A.2. Child shows understanding by following two-step oral directions and usually follows threestep directions.
- II.A.3. Child shows understanding of the language being spoken by teachers and peers.

## **B. SPEAKING (CONVERSATION) SKILLS**

- II.B.1. Child is able to use language for different purposes.
- II.B.2. Child engages in conversations in appropriate ways.
- II.B.3. Child provides appropriate information for various situations.
- II.B.4. Child demonstrates knowledge of verbal conversational rules.
- II.B.5. Child demonstrates knowledge of nonverbal conversational rules.
- II.B.6. Child matches language to social contexts.

## **C. SPEECH PRODUCTION SKILLS**

- II.C.1. Child's speech is understood by both the teacher and other adults in the school.

## **D. VOCABULARY SKILLS**

- II.D.1. Child uses a wide variety of words to label and describe people, places, things, and actions.
- II.D.2. Child demonstrates understanding of terms used in the instructional language of the classroom.
- II.D.5. Child increases listening vocabulary and begins to develop vocabulary of object names and common phrases.

## **E. SENTENCES AND STRUCTURE SKILLS**

- II.E.1. Child typically uses complete sentences of four or more words and grammatical complexity usually with subject, verb, and object orders.
- II.E.7. Child uses single words and simple phrases to communicate meaning in social situations.
- II.E.8. Child attempts to use new vocabulary and grammar in speech.

## **III. EMERGENT LITERACY READING**

### **A. MOTIVATION TO READ SKILLS**

- III.A.1. Child engages in pre-reading and reading-related activities.
- III.A.3. Child recognizes that text has meaning.

### **C. ALPHABET KNOWLEDGE SKILLS**

- III.D.1. Child retells or re-enacts a story after it is read aloud.
- III.D.2. Child uses information learned from books by describing, relating, categorizing, or comparing and contrasting.
- III.D.3. Child asks and responds to questions relevant to the text read aloud.
- III.D.4. Child will make inferences and predictions about text.

### **E. PRINT CONCEPTS**

- III.E.1 Child can distinguish between elements of print including letters, words, and pictures.
- II .E.2 Child demonstrates understanding of print directionality including left to right and top to bottom.
- III.E.3 Child can identify some conventional features of print that communicate meaning including end punctuation and case.

## **IV. EMERGENT LITERACY WRITING**

### **A. MOTIVATION TO WRITE SKILLS**

- IV.A.1. Child intentionally uses marks, letters, or symbols to record language and verbally shares meaning
- IV.A.2 Child independently writes to communicate his/her ideas for a variety of purposes.

### **B. WRITING AS A PROCESS**

- IV.B.1. Child discusses and contributes ideas for drafts composed in whole/small group writing\ activities.
- IV.B. 2. Child interacts and provides suggestions to revise (add, take out, change order) and edit (conventions) class-made drafts.
- IV. B.3 Child shares and celebrates classmate and individual written products

### **C. CONVENTIONS IN WRITING**

- IV.C.1. Child writes own name (first name or frequent nickname) using legible letters in proper sequence.

- IV.C.4. Child uses appropriate directionality when writing (top to bottom, left to right).

## V. MATHEMATICS

### A. COUNTING SKILLS

- V.A.1. Child knows that objects, or parts of an object, can be counted.
- V.A.3. Child counts 1– 10 items, with one count per item.
- V.A.4. Child demonstrates that the order of the counting sequence is always the same, regardless of what is counted.
- V.A.5. Child counts up to 10 items and demonstrates that the last count indicates how many items were counted.
- V.A.6. Child demonstrates understanding that when counting, the items can be chosen in any order.
- V.A.7. Child uses the verbal ordinal terms.
- V.A.8. Child verbally identifies, without counting, the number of objects from 1 to 5.
- V.A.9. Child recognizes one-digit \ numerals, 0–9.
- V.B.1. Child uses concrete objects, creates pictorial models and shares a verbal word problem for adding up to 5 objects.
- V.B.2. Child uses concrete models or makes a verbal word problem for subtracting 0–5 objects from a set
- V.B.3. Child uses informal strategies to separate up to 10 items into equal groups.
- V.C.1. Child names common shapes.
- V.C.2. Child creates shapes.
- V.C.3. Child demonstrates use of location words (such as "over," "under," "above," "on," "beside," "next to," "between," "in front of," "near," "far," etc.).
- V.C.4. Child slides, flips, and turns shapes to demonstrate that the shapes remain the same.
- V.D.1. Child recognizes and compares heights or lengths of people or objects.
- V.D.2. Child recognizes how much can be placed within an object.
- V.D.4. Child uses language to describe concepts associated with the passing of time.

### E. CLASSIFICATION AND PATTERNS SKILLS

- V.E.1. Child sorts objects that are the same and different into groups and uses language to describe how the groups are similar and different.
- V.E.3. Child recognizes and creates patterns

## VI. SCIENCE

### A. PHYSICAL SCIENCE SKILLS E

- VI.A.1. Child observes, investigates describes, and discusses properties and characteristics of common objects.
- VI.A.2. Child observes, investigates describes and discusses position and motion of objects.
- VI.A.4. Child observes investigates describes and discusses sources of energy including light, heat, and electricity.

### C. EARTH AND SPACE SCIENCE SKILLS

- VI.C.1. Child observes, investigates, describes and discusses earth materials, and their properties and uses.
- VI.C.4 Child demonstrates the importance of caring for our environment and our planet.

## VII. SOCIAL STUDIES

### A. PEOPLE, PAST AND PRESENT SKILLS

- VII.A.1. Child identifies similarities and differences between himself, classmates and other children inclusive of specific characteristics and cultural influences.
- VII.A.3. Child connects their life to events, time, and routines.

### D. CITIZENSHIP SKILLS

- VII.D.3. The child engages in voting as a method for group decision-making.

## VIII. FINE ARTS

## **A. ART SKILLS**

- VIII.A.1. Child uses a variety of art materials and activities for sensory experience and exploration.
- VIII.A.2. Child uses art as a form of creative self-expression and representation.
- VIII.A.3. Child demonstrates interest in and shows appreciation for the creative work of others.

## **B. MUSIC SKILLS**

- VIII.B.1. Child participates in classroom music activities including singing, playing musical instruments, and moving to rhythms.
- VIII.B.2. Child responds to different musical styles through movement and play.

## **C. DRAMATIC EXPRESSION SKILLS**

- VIII.C.1. Child creates or recreates stories, moods, or experiences through dramatic representations.

## **IX. PHYSICAL DEVELOPMENT**

### **A. GROSS MOTOR DEVELOPMENT SKILLS**

- IX.A.1. Child demonstrates coordination and balance in isolation (may not yet coordinate consistently with a partner).
- IX.A.2. Child coordinates sequence of movements to perform tasks.
- IX.A.2. Child coordinates sequence of movements to perform tasks.

### **B. FINE-MOTOR DEVELOPMENT SKILLS**

- IX.B.1. Child shows control of tasks that require small-muscle strength and control.
- IX.B.2. Child shows increasing control of tasks that require eye-hand coordination.

### **C. PERSONAL SAFETY AND HEALTH SKILLS**

- IX.C.1. Child practices good habits of personal safety.
- IX.C.2. Child practices good habits of personal health and hygiene.
- IX.C.3. Child identifies good habits of nutrition and exercise.