

**Science Standard  
Catalina Foothills School District  
Kindergarten**

The kindergarten science program emphasizes the skills of scientific inquiry. Through a rich, inquiry-based program of study, students will demonstrate scientific literacy and CFSD deep learning proficiencies in the physical, life, earth, and space sciences. Content is delivered through an integrated approach with an emphasis on science themes and systems thinking. Students will engage in active inquiries and investigations to develop conceptual understanding and research/laboratory skills. Kindergarten science enhances the student's natural curiosity about the environment and explores concepts and questions in areas such as forces and motion, animals, plants, magnets, and the body and senses.

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**SCIENTIFIC INQUIRY**

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**SCIENTIFIC INQUIRY: GENERATING SCIENTIFIC QUESTIONS**

SC0.1a.1 Generates an "I wonder" question through interactions with materials or people.

**SCIENTIFIC INQUIRY: PREDICTING AND HYPOTHESIZING**

SC0.1b.1 Makes a wide-variety of predictions, probable or improbable, at different points during a guided investigation.

**SCIENTIFIC INQUIRY: DESIGNING INVESTIGATIONS**

SC0.1c.1 Explains the process of an investigation and sequences the major steps (before, during, and after a guided experiment; for example: gather materials, set up the experiment, collect data, record the results).

**SCIENTIFIC INQUIRY: OBSERVATION AND DATA COLLECTION**

SC0.1d.1 Classifies objects using observable and measurable properties (for example: shape, length, weight) and justifies groupings.

SC0.1d.2 Represents data through "scientific" drawings, symbols, and/or words (for example: adds essential information to a diagram provided by the teacher).

SC0.1d.3 Demonstrates safe behavior and appropriate procedures (for example: use of instrument, materials, and organisms).

**SCIENTIFIC INQUIRY: ANALYSIS AND CONCLUSION**

SC0.1e.1 Describes relevant observations using pictures, models, and/or words.

SC0.1e.2 Explains the results of an investigation to others (for example: peers, teacher).

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**INTERACTION OF SCIENCE AND SOCIETY**

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SC0.2.1 Describes how different people (for example: weather reporters, cooks, gardeners, healthcare workers) use science in daily life.

SC0.2.2 Describes how diverse people and/or cultures, past and present, have made important contributions to scientific discovery (for example: Jane Goodall, Louis Braille).

SC0.2.3 Describes how simple tools, including technology (scissors, pencils, computer, paperclips, hammers), can make tasks easier.

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## **SYSTEMS THINKING (CFSD Deep Learning Proficiency – DLP)**

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### **SYSTEMS THINKING: BIG PICTURE**

SC0.3a.1 Describes how parts work together to make a whole (required: parts of a plant, body parts).

### **SYSTEMS THINKING: CHANGE OVER TIME**

SC0.3b.1 Describes change as a series of predictable observations that are connected in time to produce a pattern (required: seasons).

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## **LIFE SCIENCE**

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### **CHARACTERISTICS OF LIVING THINGS**

SC0.4.1 Distinguishes between living and non-living things based on observable characteristics (required: takes in energy and water; has a life cycle--grows and dies).

SC0.4.2 Compares human body parts (for example: shoulder, elbow, hip, thigh) and their functions (for example: movement--legs, wings; protection--skin, shell) to similar parts on other animals.

SC0.4.3 Describes a variety of plants and animals that exist in local environments according to their visible characteristics (for example: desert – Saguaro cactus, Javelina, Cactus Wren, Palo Verde tree).

### **INTERDEPENDENCE OF LIVING THINGS AND THEIR ENVIRONMENT**

SC0.5.1 Describes how the interdependence of the five senses helps an individual interact with its environment (for example: a person can smell, see, and feel the heat of a fire and react accordingly).

SC0.5.2 Explains why plants and animals need food, water, air, space, and sunlight to grow and survive.

SC0.5.3 Describes changes in a biological system (for example: birds nesting in plants, insects eating plants, a decaying pumpkin).

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## **PHYSICAL SCIENCE**

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### **STRUCTURE AND PROPERTIES OF MATTER**

Not assessed at this level.

### **INTERACTIONS OF MATTER**

SC0.7.1 Predicts which materials will be attracted to magnets and classifies them according to whether they are magnetic or not.

SC0.7.2 Describes important applications of magnets in everyday life (for example: door latches, toys, refrigerator magnets; required: proper and improper use).

SC0.7.3 Describes how forces (push and pull) cause objects to move in a variety of ways (for example: zig-zag, back-and-forth, up and down, around, fast, slow).

SC0.7.4 Explains that forces can make objects move without contact (required: magnets pull on iron; static electricity picks up small bits of paper; gravity pulls objects down).

### **CONSERVATION AND TRANSFORMATION OF ENERGY**

Not assessed at this level.

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## **EARTH AND SPACE SCIENCE**

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### **STRUCTURE AND PROCESSES OF THE EARTH**

SC0.9.1 Classifies objects as being naturally occurring or man-made.

SC0.9.2 Describes ways natural or man-made materials can be reused or recycled.

SC0.9.3 Describes seasonal weather patterns and their effects on plants and animals (for example: how trees change through the seasons, how animals respond to changes in the seasons).

### **STRUCTURE AND PROCESSES OF OBJECTS IN SPACE**

Not assessed at this level.