

# SeaWorld San Diego Instructional Field Trip Program



## Connections to California Science Content Standards

SeaWorld San Diego's Instructional Field Trips support *Science Framework for California*.

All Instructional Field Trips include —

- ◆ An educational animal presentation developed especially for school groups. Educational presentations differ from regular park shows.
- ◆ Self-guided visits to SeaWorld animal habitats. On the day of their visit, each adult chaperone receives an in-park Field Trip Guide to help facilitate learning.
- ◆ A Teacher's Guide is provided prior to visiting. This guide includes program objectives, vocabulary, animal information, and activities.



## Kindergarten

### ❑ Physical Sciences

- a. Objects can be described in terms of the materials they are made of and their physical properties.

### ❑ Life Sciences

- a. Observe and describe similarities and differences in the appearance and behavior of plants and animals.
- b. Stories sometimes give plants and animal attributes they do not really have.
- c. Identify major structures of common plants and animals.

### ❑ Earth Sciences

- c. Identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

### ❑ Investigation & Experimentation

- a. Observe common objects by using the five senses.
- b. Describe the properties of common objects.
- c. Describe the relative position of objects using one reference.
- d. Compare and sort common objects by one physical attribute.
- e. Communicate observations orally and through drawings.

## Grade One

### ❑ Physical Sciences

- b. The properties of substances can change when the substances are mixed, cooled, or heated.

### ❑ Life Sciences

- a. Different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.
- b. Both plants and animals need water, animals need food, and plants need light.
- c. Animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.
- d. Students know how to infer what animals eat from the shape of their teeth.

### ❑ Investigation & Experimentation

- a. Draw pictures that portray some features of the thing being described.
- b. Record observations and data with pictures, numbers, or written statements.
- c. Record observations on a bar graph.
- d. Describe the relative position of objects by using two references.
- e. Make new observations when discrepancies exist between two descriptions of the same object or phenomenon.



## Grade Two

### ❑ Physical Sciences

- g. Sound is made by vibrating objects and can be described by its pitch and volume.

### ❑ Life Sciences

- a. Organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another.
- b. The sequential stages of life cycles are different for different animals, such as butterflies, frogs, and mice.

- c. Many characteristics of an organism are inherited from the parents. Some characteristics are caused or influenced by the environment.
- d. There is variation among individuals of one kind within a population.

#### ❑ Earth Sciences

- e. Rock, water, plants, and soil provide many resources including food, fuel, and building materials, that humans use.

#### ❑ Investigation & Experimentation

- a. Make predictions based on observed patterns and not random guessing.
- b. Measure length, weight, temperature, and liquid volume with appropriate tools and express those measurements in standard metric system units.
- c. Compare and sort common objects according to two or more physical attributes.
- d. Write or draw descriptions of a sequence of steps, events, and observations.
- e. Construct bar graphs to record data, using appropriately labeled axes.
- g. Follow oral instructions for a scientific investigation.

### Grade Three

#### ❑ Physical Sciences (Energy and Matter)

- a. Energy comes from the Sun to Earth in the form of light.
- c. Machines and living things convert stored energy to motion and heat.

#### ❑ Life Sciences

- a. Animals have structures that serve different functions in growth, survival and reproduction.
- b. Examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

- c. Living things cause changes in the environments in which they live; some of these changes are detrimental to the organism or other organisms, and some are beneficial.
- d. When the environment changes, some plants and animals survive; others die or move to new locations.
- e. Some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.

### Grade Four

#### ❑ Life Sciences

- 2. a. Plants are the primary source of matter and energy entering most food chains.
- 2. b. Producers and consumers are related in food chains and food webs and may compete with each other for resources in an ecosystem.
- 3. a. Ecosystems can be characterized by their living and nonliving components.
- 3. b. In any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.

#### ❑ Investigation & Experimentation

- a. Differentiate observation from inference and know scientists' explanations come partly from what they observe and partly from how they interpret their observations.
- c. Formulate and justify predictions based on cause-and-effect relationships.
- d. Conduct multiple trials to test a prediction and draw conclusions about the relationships between predictions and results.
- f. Follow a set of written instructions for a scientific investigation.

## Grade Five

### □ Investigation & Experimentation

- a. Classify objects in accordance with appropriate criteria.
- b. Develop a testable question.
- f. Record data by using appropriate graphic representations and make inferences based on those data.
- i. Write a report of an investigation that includes conducting tests, collecting data, or examining evidence, and drawing conclusions.

## Grade Six

### □ Investigation & Experimentation

- a. Develop a hypothesis.

## Grade Seven

### □ Investigation & Experimentation

- b. Use a variety of print and electronic resources to collect information and evidence as part of a research project.
- c. Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.

## Grade Eight

### □ Motion

- c. Solve problems involving distance, time, and average speed.

### □ Investigation & Experimentation

- a. Plan and conduct a scientific investigation to test a hypothesis.

## Grades Nine through Twelve

### □ Ecology

- a. Biodiversity is the sum total of different kinds of organisms and is affected by alterations of habitats.

### □ Investigation & Experimentation

- d. Formulate explanations by using logic and evidence.
- m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings.

Please refer to the Science Framework for California Public Schools for detailed information about each standard set. For information about SeaWorld Instructional Field Trips and the National Science Education Standards, please visit [www.SeaWorld.org/Education-Programs/SWC](http://www.SeaWorld.org/Education-Programs/SWC).

For Instructional Field Trip reservations, please call **1-800-25-SHAMU**, press 4. For more information about SeaWorld education programs visit **SeaWorld.org**.

Looking for animal information or classroom activities? Visit the *Just for Teachers* section of *SeaWorld.org* to find resources such as free PDFs of Teacher's Guides and links to classroom activities about ocean and land animals. Be sure to check out *Land, Sea, & Air*, the monthly e-newsletter designed just for teachers. Subscribe online to receive educational information about animals, their habitats, and how we can work together to make a difference in the world.

