

ImagineU Children's Museum Exhibits/Standards Correlation

Fall 2009

Here is a current list of our exhibits that correlate to California State Content Standards.

Students who participate in our Exploration Workshops and/or our ImagineU Scavenger Hunt as part of a field trip, have activities tailored to meet their grade-level and learning needs and Standards.

Language Arts Standards are met as exhibit information requires children to read, comprehend, and analyze non-fiction text. They must answer questions, follow written directions, and write about some of their findings. The text at each exhibit is written at approximately a third grade level.

Mathematics Standards are met when students make predictions, measure, weigh, graph and analyze data as they participate in experiments.

Kindergarten through 6th Grade Investigation and Experimentation Science Standards are related to most of our hands-on exhibits.

Aquarium

Learn about fish in general including their physical structure, life cycle, and behavior. Observe several colorful fish in this small, lively habitat.

Related California Standards:

Kindergarten Life Sciences Different types of plants and animals inhabit the earth. *Students know* how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).

1st Grade Life Sciences Plants and animals meet their needs in different ways. *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.

2nd Grade Life Sciences Plants and animals have predictable life cycles. *Students know* many characteristics of an organism are inherited from the parents. The characteristics are caused or influenced by the environment.

3rd Grade Life Sciences Adaptations in physical structure or behavior may improve an organism's chance for survival. *Students know* plants and animals have structures that serve different functions in growth, survival, and reproductions. *Students know* examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

4th Grade Life Sciences All organisms need energy and matter to grow. Living organisms depend on one another and on their environment for survival. *Students know* ecosystems can be characterized by their living and nonliving components.

Creature Corner

Learn about frogs, their lifecycle as well as the differences between frogs and toads as you meet Packy the pacman frog.

Related California Standards:

Kindergarten Life Sciences Different types of plants and animals inhabit the earth. *Students know* how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).

1st Grade Life Sciences Plants and animals meet their needs in different ways. *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.

2nd Grade Life Sciences Plants and animals have predictable life cycles. *Students know* the sequential stages of life cycles are different for different animals, such as butterflies, frogs, and mice. *Students know* many

characteristics of an organism are inherited from the parents. The characteristics are caused or influenced by the environment.

3rd Grade Life Sciences Adaptations in physical structure or behavior may improve an organism's chance for survival. *Students know* plants and animals have structures that serve different functions in growth, survival, and reproductions. *Students know* examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

4th Grade Life Sciences Living organisms depend on one another and on their environment for survival. *Students know* that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.

Diggin' It

Become a paleontologist or archaeologist as you dig for bones and fossils in our excavation boxes.

Related California Standards

3rd Grade Life Sciences Adaptations in physical structure or behavior may improve an organism's chance for survival. *Students know* when the environment changes, some plants and animals survive and reproduce; others die or move to new locations. *Students know* that some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.

Gravity Well

Watch your coins accelerate and decelerate as it circles around the Gravity Well. Count how many times your coin makes it around before dropping in the center hole of this hyperbolic funnel. The gravity well is a model of Kepler's Laws of Planetary Motion.

Related California Standards:

2nd Grade Physical Sciences Motion of objects can be observed and measured. *Students know* objects fall to the ground unless something holds them up

3rd Grade Earth Sciences Objects in the sky move in regular and predictable patterns. *Students know* that Earth is one of several planets that orbit the Sun and that the Moon orbits Earth.

5th Grade Earth Sciences The solar system consists of planets and other bodies that orbit the Sun in predictable paths. *Students know* the path of a planet around the Sun is due to the gravitational attraction between the Sun and the planet.

Grocery Store

Food is fuel for our bodies. Plan a meal and then shop at the ImagineU Grocery Store for the ingredients you'll need. Study the USDA Food Pyramid and see if you are eating right and getting enough exercise.

Related California Standards:

3rd Grade Physical Sciences *Students know* sources of stored energy take many forms, such as food, fuel, and batteries.

KaleidoDraw

KaleidoDraw is a fun computer program that introduces symmetry patterns. Click on a variety of colors, designs and patterns from nature and the world around us to create unique and beautiful rosette patterns.

Related California Standards:

4th Grade Measurement and Geometry Students demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems. Identify figures that have bilateral and rotational symmetry.

Observation Station

Observe, compare, measure and weigh several items from the natural world including shells, rocks, leaves and snake skins. Use the tools that scientists use including rulers, microscopes, hand lenses and balances.

Related California Standards:

Kindergarten Investigation and Experimentation Students will: Observe common objects by using the five senses. Describe the properties of common objects. Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight). Communicate observation orally and through drawings.

1st Grade Investigation and Experimentation Students should develop their own questions and perform investigations. Students will draw pictures that portray some features of the thing being described.

2nd Grade Investigation and Experimentation Students will measure length, weight, temperature, and liquid volume with appropriate tools and express those measurements in standard metric system units. Compare and sort common objects according to two or more physical attributes (e.g., color, shape, texture, size, weight). Use magnifiers or microscopes to observe and draw descriptions of small objects or small features of objects.

Rocks and Minerals

Observe, compare, and analyze a variety of rocks and minerals in our collection.

Learn how minerals are the building blocks of rock and how geologists take field notes.

Related California Standards:

2nd Grade Earth Sciences Earth is made of materials that have distinct properties and provide resources for human activities. *Students know* how to compare the physical properties of different kinds of rocks and know that rock is composed of different combinations of minerals.

4th Grade Earth Sciences The properties of rocks and minerals reflect the processes that formed them. *Students know* how to differentiate among igneous, sedimentary and metamorphic rocks by referring to their properties and methods of formation (the rock cycle). *Students know* how to identify common rock-forming minerals (including quartz, calcite, feldspar, mica, and hornblende) and ore minerals by using a table of diagnostic properties.

Spinners

Are your eyes playing tricks on you? Try out several different spinners and watch the beautiful and surprising results.

Related California Standards:

3rd Grade Physical Sciences *Students know* the color of light striking an object affects the way the object is seen.

Our interactive exhibits are fun, creative, educational, and stimulate the imagination.

Children of all ages must check out our Dress Up area, the Imagination Castle and Puppet Theater, and our Let's Make Music Center.

The Toddler Play Area, Infant Crawl Space, Train Table, Imagination Station and Read to Me Nook are perfect places to learn, play, create and move for the five and under crowd.

Coming Attractions planned for Fall/Winter, 2009 include:

ImagineU gym

'Plug It In' Bicycles/Energy Exhibit

AND MORE!!!