SANTA BARBARA MUSEUM of NATURAL HISTORY
SEA CENTER

2015-2016 School Programs
SEA CENTER EXPLORATIONS

Inquiry-based, standards-aligned experiences for your class!
Available September 7, 2015- June 10, 2016

The Santa Barbara Museum of Natural History's Sea Center offers school groups unique learning experiences through various activities designed to meet specific educational goals. Students are encouraged to develop keen observation skills, to generate questions, and to construct a personal understanding of the natural world.

Reservations are required for all programs.
Call 805-962-2526 ext. 108,

Monday–Friday
1:00–5:00 PM.

Interactive Tours give students the chance to observe, touch, and explore marine life in small groups. Trained docents guide engaging, interactive experiences with sharks and rays, tide pool animals, marine mammals, oceanography equipment, and jellies. Each tour meets Next Generation Content Standards and Education and the Environment principles.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

Outdoor Nature Explorations provide grade-specific, inquiry-based outdoor experiences aligned with Next Generation Science Standards and Education and the Environment principles. Students explore the natural world along East Beach near Mission Creek Lagoon using scientific tools to enhance observations and collect data.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon).

Group size: maximum one class.

All programs in this guide meet the Next Generation Science Standards and the previous CA Science Standards.

Sea Center Explorations for Specific Grade Levels

KINDERGARTEN

Outdoor Nature Exploration

What Lives at the Beach?

Students take a guided nature walk along the beach, using their senses to detect signs of life. They observe local birds and examine the sand. Students may find clams, worms, insects, kelp, shells, feathers, bones, rocks, and even tree branches. Buckets, tweezers, and hand lenses are used to respectfully observe found items of interest. Students carefully sort their discoveries according to similarities/differences as well as examples of living things versus nonliving things. Ultimately, students return all biotic items to the natural habitat.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about the vast diversity of life in the Santa Barbara Channel.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

FIRST GRADE

Outdoor Nature Exploration

What Lives in the Sand?

Students take a guided nature walk along the beach, using their senses to detect signs of life. They observe local shorebird feeding strategies and wave patterns. Students dissect a core sample of sand to search for living organisms. Students may find sand crabs, worms, clams, beach hoppers, or beach pillbugs. Students use tools to enhance observation, and sort the found items according to similarities/differences. Ultimately students return all biotic items to the natural habitat.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about how animals meet their needs for survival in the marine environment.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

All programs in this guide meet the Next Generation Science Standards and the previous CA Science Standards.

SECOND GRADE

Outdoor Nature Exploration
Investigating the Sandy Beach

Students take a guided nature walk along the beach, using their senses to detect signs of life. They observe local birds and may find crabs, clams, worms, insects, kelp, rocks, and shells in the sand. Buckets, sieves, and hand lenses are used to locate and respectfully observe small animals and plants of interest. Students note similarities/differences within and between species and ultimately return all biotic items to the natural habitat. Additionally, students investigate the composition of sand with magnifying lenses and magnets, describing the physical characteristics that provide clues to its origin.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about life cycles in the ocean.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

THIRD GRADE

Outdoor Nature Explorations
Coastal Bird Adaptations

Students examine the beaks, legs, and feet of shorebirds to draw conclusions about how varied features promote survival in the wild. The children learn how to use binoculars in order to investigate bird behavior along the coast and in an estuary. Behaviors associated with eating and movements are matched to specific bird features. Students leave with a heightened appreciation for unique bird adaptations and careful observation in the natural world.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about the unique adaptations that improve the chances of survival for marine life.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

FOURTH GRADE

Outdoor Nature Exploration
Shifting Sands

Students examine and describe sand samples from East Beach. They carefully investigate local rocks, shells, plant and animal remnants, and other found objects for clues about the sand's origin. After comparing local sand to samples from other regions, students draw conclusions about the composition and relative age of the samples. Students also observe and conduct experiments with water and sand to determine the effect of waves and wind on the shape of the beach.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about animals and their role in the vast ocean food chains.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

All programs in this guide meet the Next Generation Science Standards and the previous CA Science Standards.

Sea Center Explorations for Specific Grade Levels, continued

FIFTH GRADE

Outdoor Nature Exploration
Walking the Watershed

Students investigate conditions and test water quality at Mission Creek Lagoon. They work in teams to measure salinity, temperature, turbidity, nitrates, dissolved oxygen, pH, and phosphates. While recording and examining data from these tests, students learn the sources and effects of various pollutants on aquatic life. Data is used to determine the current health of the water at the bottom of the Mission Creek watershed.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about the internal organs of marine animals, and the jobs they perform.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

SIXTH GRADE

Outdoor Nature Exploration
Beach Profiling

Students employ the tools of marine scientists and coastal geologists to gather data and graph a side view of the topography of East Beach in Santa Barbara. In small groups, they learn how to sight the horizon through transit rods and to record elevation measurements at two-meter intervals along a single line transect. Students also conduct experiments with water and sand to determine the effect of waves on the beach. Finally, they draw conclusions about the natural forces that shape the beach over time.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Interactive Tour

Trained Docents lead small groups in hands-on explorations with marine life. Students learn firsthand about how matter and energy are transferred among the vast food chains of the ocean.

(Monday–Friday, 10:00–11:00 AM; 11:00 AM–Noon)

Group size: maximum 80 students.

CLASSROOM RESOURCES

The Nature Collection is an educational loan service that offers a wide array of resource materials for teachers to use in their classrooms. Teacher Members may select from a large collection of biology and geology specimens, Chumash Indian artifact reproductions, curriculum kits, books, and media focusing on natural history topics.

Information:
Call the Nature Collection at 805-682-4711 ext. 122

Teacher Guides for Museum activities available in PDF format on our web site: www.sbnature.org

Thank You to Our Funders:

Wood-Claeyssens Foundation

William S. Corbet Foundation

Santa Ynez Band of Chumash Indians Foundation

Proceeds from the Museum's annual Mission Creek Gala support these programs. We are grateful for the generosity of Gala guests and sponsors.

High Tide Foundation

The Museum League

All programs in this guide meet the Next Generation Science Standards and the previous CA Science Standards.