

Education Programs

2015–2016




theNAT
SAN DIEGO NATURAL HISTORY MUSEUM

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The Canyoneers
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PROBEA (Proyecto Bio-regional de Educacion Ambiental)

Bio-regional Environmental Education Project
*Environmental education training programs for
teachers in the Baja California peninsula*

Smart Schools

International Community Foundation-Candeco Fund
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WELCOME

Dear San Diego County Educators,

When I think about education, I reflect on the many influences in my youth that fueled my educational and personal growth. Mr. Brown, my fourth grade and favorite teacher, was the first educator who really connected with me, encouraging me to be myself and pursue my dreams. Next, there were my numerous trips to the Cincinnati Natural History Museum where I would lose myself in the cases of taxidermy specimens and take countless trips “spelunking” through the recreated life-size cave with stalagmites and stalactites. Then, there were the endless hours I spent as a child exploring the woods and creeks in my neighborhood which compelled me to lead hikes through the Blue Ridge Mountains of North Carolina as a young adult. Opportunities like these, and others, define who we become in adulthood.

When I think about education, the saying, “the whole is greater than the sum of its parts” comes to mind—what people can accomplish by working together is much more than they can accomplish individually. Our goal at the Museum is to join the community as a positive influence for our students—to work with educators, parents, members, administrators, community organizations, nature lovers, and others to inspire, challenge, reflect, and educate local students of all ages in hopes that every person we serve develops a passion for the natural world.

Our Education Department has recently put forth a tremendous amount of effort to perfect theNAT’s programs. They have carefully assessed curriculum and classes, added winter and spring camps, and overhauled our summer camp program. The most noticeable change you can see in this year’s Education Programs Guide is the Next Generation Science Standards Aligned School

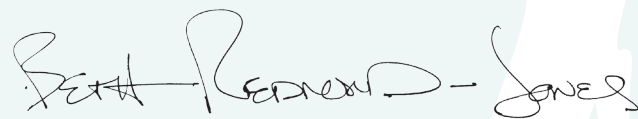
Programs chart (see page 8). This chart will assist teachers in meeting these standards through our engaging hands-on programs in your classroom or at the Museum.

In January 2015, theNAT unveiled yet another educational asset—*Coast to Cactus in Southern California*, a permanent exhibition that explores the amazing diversity of plants and animals in this wonderful place we are lucky to call home. With the assistance of our Teacher Advisory Groups, we are developing curricula for grades K-8, including pre- and post-visit activities, as well as on-site activities for students while visiting the exhibition. We also offer classes rooted in the exhibition content, and you can even schedule a hike for your class with one of our Canyoneers to get out into the wild and explore the region in person.

As a thank you, we want to invite all current educators to our annual Educator Appreciation Night on November 5 from 4-7 PM. Come to theNAT for dinner, drinks, Museum exploration, and giveaways! The first 400 educators to arrive will also receive entry to our special exhibition, *Maya: Hidden Worlds Revealed* that evening.

Together, we can provide the opportunities that help students to succeed in school and pursue their dreams. We look forward to a new year of interacting with guests and seeing you and your families here at theNAT.

Regards,



Beth Redmond-Jones
Senior Director of Public Programs

CURRENT EXHIBITIONS



Fossil Mysteries

75 million years of geologic history



Coast to Cactus in Southern California

Unique and treasured habitats of our region



Water: A California Story

Explore water issues facing southern California



Skulls

More than 200 specimens on display

TRAVELING EXHIBITIONS



Maya: Hidden Worlds Revealed

On view through January 3, 2016



Coming Soon: Whales: Giants of the Deep

March 19–September 6, 2016

PROGRAMS AT A GLANCE

	Pre-K	K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Educator Resources	At the NAT	At your school	Page #
Exhibitions at the NAT																		
Exhibitions	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		3
Registration																		
How to Register															x	x	x	5
Title I Schools															x	x	x	5
Educator and Community Resources																		
Films															x	x		6
Camp-O-Saurus															x	x		6
Educator Guides															x	x	x	6
Educator E-News															x	x	x	6
Nature to You Loan Library															x		x	7
Educator Appreciation Night															x	x		7
NGSS Aligned School Programs																		
Next Generation Science Standards															x	x	x	8
Come to Us - Self-Guided																		
Self-Guided Visits	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		10
Come to Us - Behind the Scenes																		
The Science of Collections-Based Research											x	x	x	x		x		10
Come to Us - Hands-On Classes																		
Amazing Arthropods		x	x	x	x											x		11
Cetacean Sensation		x	x	x	x											x		11
Habitat Journey		x	x	x	x	x										x		11
Native Land, Native People		x	x	x	x	x										x		11
Come to Us - Docent-Led Classes																		
Desert Dwellers	x	x	x	x	x											x		12
Exploring Your Backyard	x	x	x	x	x											x		12
Foragers of the Forest	x	x	x	x	x											x		12
Oceans from Shore to Deep	x	x	x	x	x											x		12
Pond Pals	x	x	x	x	x											x		12
Reptile Friends	x	x	x	x	x											x		12
Come to Us - Docent-Led Tours																		
Door to the Desert				x	x	x	x									x		13
Explore <i>Fossil Mysteries</i>				x	x	x	x	x	x	x						x		13
Habitats of San Diego				x	x	x	x	x	x	x						x		13
Water				x	x	x	x	x	x	x	x	x	x	x		x		13
We'll Come to You - In the Field																		
Nature Hikes		x	x	x	x	x	x	x	x	x	x	x	x	x			x	14
We'll Come to You - Hands-On Classes																		
Ms. Frizzle's Classroom Adventures	x	x	x	x													x	14
Mesozoic Mysteries	x	x															x	15
Tide Pool Wonders	x	x															x	15
Cloud Science	x	x	x														x	15
Mammals Classified	x	x	x														x	15
Native Land, Native People		x	x	x	x	x											x	16
Flora and Fauna			x	x													x	16
Earth Detective				x	x												x	16
Survivor					x	x											x	16
Read a Rock						x	x										x	17
It's Elemental - The State of Things						x	x										x	17
It's Elemental - Making and Breaking Bonds						x	x										x	17
We'll Come to You - Docent-Led Classes																		
Desert Dwellers	x	x	x	x	x												x	18
Exploring Your Backyard	x	x	x	x	x												x	18
Foragers of the Forest	x	x	x	x	x												x	18
Oceans from Shore to Deep	x	x	x	x	x												x	18
Pond Pals	x	x	x	x	x												x	18
Reptile Friends	x	x	x	x	x												x	18
Incredible Insects and More		x	x	x	x	x											x	19
Life in the Desert				x	x	x	x	x									x	19
Nature's Night Life				x	x	x	x	x	x								x	19
Our Region's Habitats				x	x	x	x	x									x	19
Fossil Tales of San Diego				x	x	x	x	x	x	x							x	19
Family Programs																		
Ms. Frizzle's Wacky Science Sundays	x	x	x	x												x		20
Nature and Me Storytime	x	x	x													x		20
Family Days	x	x	x	x	x											x		20
Birthday Parties	x	x	x	x	x													20
Canyoneers	x	x	x	x	x	x	x	x	x	x	x	x	x	x				21
Whale Watching	x	x	x	x	x	x	x	x	x	x	x	x	x	x				21
Lectures								x	x	x	x	x	x	x		x		21
Film Festival								x	x	x	x	x	x	x		x		21
Winter and Spring Break Camps	x	x	x	x	x	x	x									x		21
Summer Camp	x	x	x	x	x	x	x	x	x	x						x		21

IMPORTANT REGISTRATION INFORMATION

Registration

Reservations are required for all group visits and programs.

Please call **619.255.0349** to make your reservation.

For programs at the Museum, one adult chaperone per eight students is required and a one to five ratio is recommended.

Required chaperones and carpool drivers (one to three ratio) are admitted free for general admission.

Payment

A \$25 non-refundable deposit is required for all programs except Self-Guided Visits.

Payment in full is due one week prior to scheduled program, with the exception of Self-Guided Visits and Docent-Led Tours; these fees may be paid at the door.

Cancellations

When cancellations are necessary, please call **619.255.0349**.

Cancellations are not official until you receive a reply from the Education Department.

Full program fee is charged for cancellations made with less than one week notice.

Upon arrival

The San Diego Natural History Museum is located near the corner of Park Boulevard and Village Place in Balboa Park.

Student groups should enter at the north entrance (near the fig tree).

Cubbies are available to store your group's lunches.

The lawn on the north side of the Museum or the fountain area on the south side make perfect lunch spots for your group.

Want to prepare before your class visit?

Bring your educator ID and receive FREE general admission to the San Diego Natural History Museum.

Call **619.255.0349** for details.

Title I Schools

Museum Access Funds are available for Title I schools to help support the costs of your visit or program.

Ask our reservation supervisor for details.
619.255.0349





EDUCATOR & COMMUNITY RESOURCES

Films

Prehistoric Planet 3D: Walking with Dinosaurs
(Through January 3, 2016)

Travel to Cretaceous Alaska 70 million years ago to see dinosaurs as they've never been seen before. Experience a year in the life of dinosaurs fighting, feeding, migrating, playing, and hunting.

Tiny Giants 3D

(Through March 18, 2016)

Go on an extraordinary adventure into magical worlds beneath our feet that most of us never see. Be transported to an astonishing day in the life of two little heroes, a scorpion mouse and a chipmunk.

Ocean Oasis

(shown twice daily)

Take a fascinating journey into two remarkably different, but inextricably linked worlds—Mexico's Sea of Cortés and the Baja California desert.

Visit sdnat.org/giantscreentheater for show times and updates.

Subscribe to Educator E-News

Sign up for our educator e-newsletter and find out how theNAT can supplement classroom learning. Educator events, exhibition openings, educator guides, films, and lectures are just some of the news we would love to share with you!

Camp-O-Saurus

Budding paleontologists can imagine themselves excavating a dinosaur fossil site that includes tents, a campfire, and even a space to sit in an oversized "dinosaur egg nest." Read a book, put a puzzle together, don a dinosaur tail, and imagine the landscape of our region millions of years ago.

Camp-O-Saurus is free with general admission and suitable for ages 4-8.

Educator Guides

Looking for more in-depth information on our exhibitions? Exhibition educator guides provide detailed background information, pre- and post-visit activities, suggested reading material, California State Content Standards, (including Common Core and the Next Generation Science Standards), and additional resources to make you feel like an expert during your visit.

Find our exhibition educator guides at sdnat.org/educatorguides.



Nature to You Loan Library

Inspire your students with specimens from the natural world. Nature to You Loan Library members have access to more than 1,300 specimens representing the plant, animal, and geologic diversity of southern California, Baja California, and beyond.

Nature to You specimens can be used in your classroom, art studio, or at home. Our staff will help you find specimens that meet your curriculum needs.

Annual Membership Fee: \$50

See what we have available online at sdnat.org/specimenssearch or call 619.255.0236 for further information.

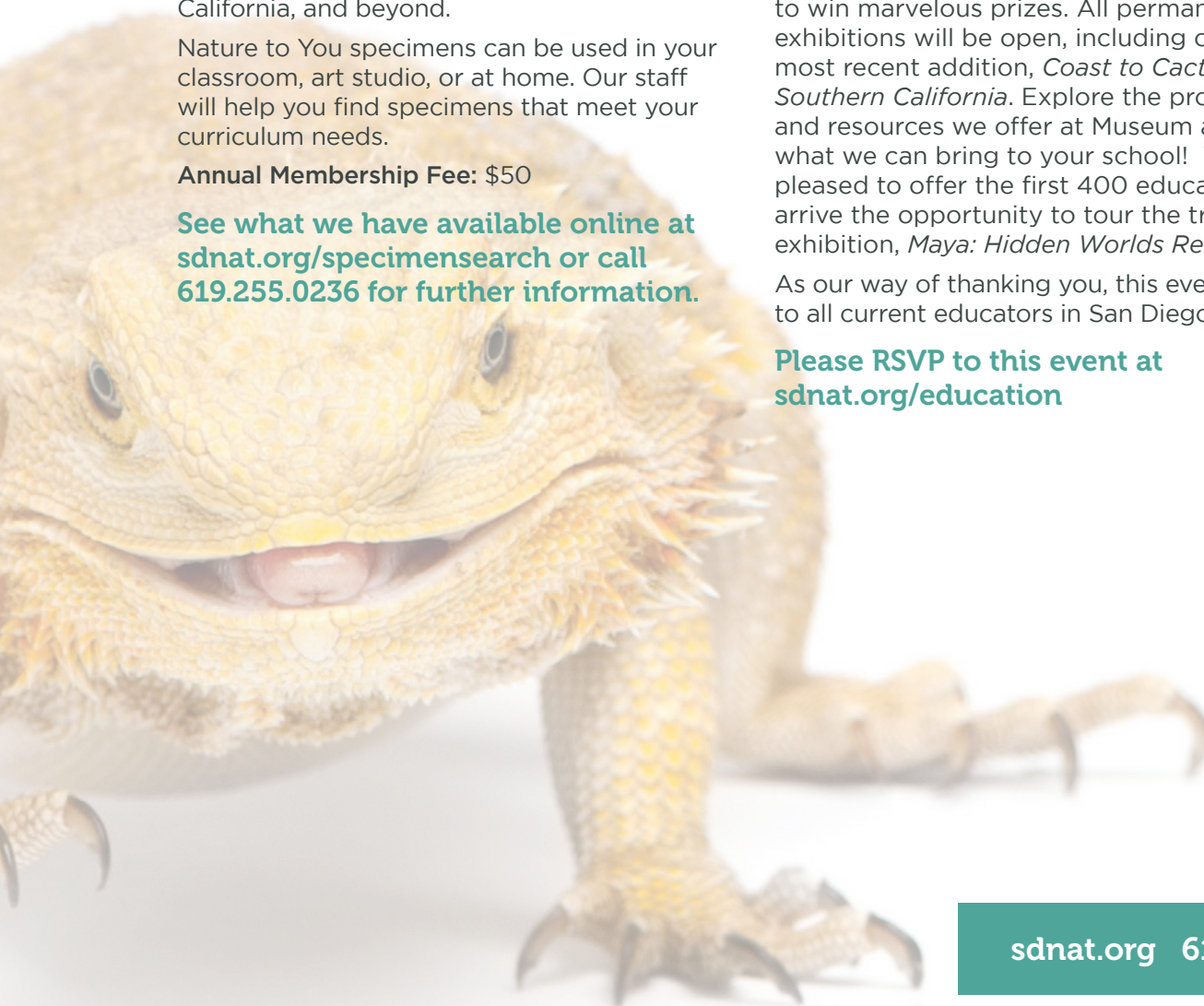
Educator Appreciation Night

November 5, 2015, 4-7 PM

Calling all educators! Come meet our Education staff and mingle with other educators throughout the county. Dinner and drinks will be provided as well as a chance to win marvelous prizes. All permanent exhibitions will be open, including our most recent addition, *Coast to Cactus in Southern California*. Explore the programs and resources we offer at Museum as well as what we can bring to your school! We are pleased to offer the first 400 educators who arrive the opportunity to tour the traveling exhibition, *Maya: Hidden Worlds Revealed*.

As our way of thanking you, this event is free to all current educators in San Diego County.

Please RSVP to this event at sdnat.org/education



NGSS ALIGNED SCHOOL PROGRAMS

Next Generation Science Standards

Science learning in informal environments supports science learning in the classroom. When your students can apply content and the impact science has in their everyday lives, it becomes relevant and more meaningful.

Programming and exhibitions at theNAT provide regionally-based science content. We look forward to supporting you in the implementation of the Next Generation Science Standards by creating an exciting and engaging environment for science learning.

Use the tables on these pages to see how our School Programs align with the Next Generation Science Standards Disciplinary Core Ideas. For the 2016/2017 school year, we will continue to further align our programs with the Crosscutting Concepts as well as the Science and Engineering Practice.

corestandards.org

nextgenscience.org

Come to Us

Taught by Museum Educator						
Taught by Docents						
Pre K						
K-LS1 Structures & Processes						
K-ESS2 Earth's Systems						
K-ESS3 Earth & Human Activity						
Kindergarten						
K-LS1 Structures & Processes	X	X	X	X		
K-ESS2 Earth's Systems	X	X	X	X		
K-ESS3 Earth & Human Activity	X	X	X	X		
First						
1-LS1 Structures & Processes	X	X	X	X		
1-LS3 Inheritance & Variation of Traits	X	X	X	X		
Second						
2-LS2 Interactions, Energy, & Dynamics	X	X	X	X	X	X
2-LS4 Unity & Diversity	X	X	X	X	X	X
2-ESS1 Earth's Place in the Universe					X	
2-ESS2 Earth's Systems	X	X	X	X	X	X
Third						
3-LS1 Structures & Processes	X	X	X	X	X	X
3-LS2 Interactions, Energy, & Dynamics	X	X	X	X	X	X
3-LS3 Inheritance & Variation of Traits	X	X	X	X	X	X
3-LS4 Unity & Diversity					X	X
3-ESS3 Earth & Human Activity	X	X	X	X	X	X
Fourth						
4-LS1 Structures & Processes			X	X	X	X
4-ESS1 Earth's Place in the Universe					X	
4-ESS2 Earth's Systems					X	X
4-ESS3 Earth & Human Activity			X	X	X	X
Fifth						
5-LS1 Structures & Processes				X	X	X
5-LS2 Interactions, Energy, and Dynamics				X	X	X
5-ESS2 Earth's Systems					X	X
5-ESS3 Earth & Human Activity					X	X
5-PS1 Matter and Its Interactions						
5-PS3 Energy						
5-ETS1 Engineering Design						
Middle School (6-8)						
MS-LS1 Structures & Processes				X	X	X
MS-LS2 Interactions, Energy, & Dynamics				X	X	X
MS-LS3 Inheritance & Variation of Traits				X	X	X
MS-LS4 Unity & Diversity				X	X	X
MS-ESS1 Earth's Place in the Universe					X	
MS-ESS2 Earth's Systems					X	X
MS-ESS3 Earth & Human Activity				X		X
High School (9-12)						
HS-LS1 Structures & Processes						X
HS-LS2 Interactions, Energy, & Dynamics						X
HS-LS3 Inheritance & Variation of Traits						X
HS-LS4 Unity & Diversity						X
HS-ESS2 Earth's Systems						X
HS-ESS3 Earth & Human Activity						X

Taught by Museum Educator
Taught by Docents

* Denotes Classes that are also offered at the Museum

COME TO US

Self-Guided

Self-Guided Visit

Conduct your own self-guided visit any time of year and discover the unique evolution and biodiversity of southern California and the peninsula of Baja California. Topics to explore with your group include: geology, paleontology, evolution, and ecology. Teachers may preview general admission exhibitions for free with valid identification. Self-Guided Visits do not include special exhibitions or 3D films.

Grades: Pre-K-12

Fee: \$6 per student

Group size: 10 student minimum

Behind the Scenes

The Science of Collections-Based Research

Why do natural history museums collect so much stuff? Learn how we organize, preserve, and use collections of specimens to further our knowledge about the ecology and evolution of life on this planet. Students will receive a brief introduction to collections-based research from a Museum curator before dividing into groups for a behind-the-scenes guided tour of different research collections. The experience concludes with students regrouping for a facilitated discussion on the different collections visited.

Grades: 9-12

Fee: \$9 per student

Group size: 20 student minimum, 45 student maximum per 2-hour class



Hands-On Classes Led by a Museum Educator

Amazing Arthropods

Arthropods are interdependent on all life and serve an important role on Earth. Armed with an exoskeleton and enhanced sight and smell, insects, arachnids, and crustaceans are Earth's great survivors. Determine structure and function of these tenacious little workers. Compare life cycles, journal your observations, and touch a live specimen!

Grades: K-3

Cetacean Sensation

While whales have many adaptations for living in an ocean, human interaction is making it increasingly difficult for whales to survive and thrive in their watery home. Examine the structure and function of our ocean cousins and discover how these large sea mammals eat, breathe, and travel compared to land mammals. Touch an authentic whale specimen and tune in to the use of sound waves for echolocation and communication.

Grades: K-3

Habitat Journey

Take an extraordinary journey from our wetlands, through our scrublands, up to our local mountains, dropping down to our desert all in one day! Unearth the unique biodiversity and natural history of our region. Discover how native plants and animals adapt to their environment. Become a young naturalist, journal your observations, and construct explanations on why our natural heritage is so important to preserve.

Grades: K-4

Native Land, Native People (formerly Autumn Harvest)

The San Diego region is rich in biodiversity and offered a sustainable way of life for its native people. By studying how the Kumeyaay Nation relied on their skills and expertise, we develop an appreciation for native traditions, plants, and animals. Gain a sense of place and history of the land many people now call home. Grind acorns for flour, scrape yucca leaves for fiber, and practice your naturalist skills to live and thrive. Experience what life in the 1300s and earlier was like in San Diego and compare to today's lifestyle.

Grades: K-4



Come to Us Classes

Hands-On Classes Led by a Museum Educator on this page:

Fee: \$8 per student (includes Museum general exhibitions)

Group Size: 25 students per 1.5-hour class (10 student minimum)

Each additional student: \$8 per student

Classes may not be combined.

Docent-Led Classes

Desert Dwellers

Water is scarce in the desert and survival depends on the clever acquisition and conservation of water. Identify the techniques used by plants and animals that allow them to survive in the desert. Discover how an animal who never drinks water can still call the desert its home. Come take a closer look and see why this arid area is actually a thriving habitat.

Exploring your Backyard

What is over your head, beneath your feet, and looking at you from the bushes? Recognize life all around you without leaving home because it is right in your own backyard. Classify animals by their characteristics and observe the importance of tunnels by peeking into a worm garden. Learn misconceptions about owls and decide how you can provide a safe environment for the natural world.

Foragers of the Forest

While forests provide suitable habitats for a large variety of plants and animals, life in the woods must be able to adjust to a seasonal environment. Come meet the bird that uses the pine tree as its kitchen cupboard. Follow the life cycle of the acorn as it develops into a mighty oak.

Oceans from Shore to Deep

From the shores to the deep, oceans are host to a wide variety of plants and animals. Discover who lives in and visits the multi-layered kelp forest condominiums. Compare the size and shape of bird beaks and feet to see how these traits influence diet. By learning about life below sea level, we can better understand how to keep the ocean clean and healthy for its inhabitants.

Pond Pals

Ponds are freshwater ecosystems that support a complex food web. By identifying the various producers, consumers, and decomposers, we can begin to understand why forms of life around a pond are dependent upon one another. Meet the darting helicopter insect and arrange the life cycle of our pond pals, the amphibians.

Reptile Friends

The warm and arid climate of the San Diego region provides an ideal environment for several reptiles. Explore traits and adaptations of our regional lizards, turtles, and snakes. Examine skeletons, skulls, and the molted skins of the reptiles who have adapted to survive throughout San Diego. Learn how to identify a dangerous snake.

Come to Us Classes

Docent-led Classes on this page:

Grades: Pre-K-3

Fee: \$7 per student (includes Museum general exhibitions)

Group Size: 25 students per 1-hour class (10 student minimum)

Each additional student: \$7 per student

Classes may not be combined.



Docent-Led Tours

Door to the Desert

Tours held in classroom and behind the scenes

The desert is more than just a hot, dry, barren space. Upon closer examination, we can see the desert supports a thriving habitat. Observe and discuss adaptations necessary to survive in the desert. Be awed by the power of a flash flood. Touch fossils found in the desert and discover how we can read the story of our region's past. Go behind the scenes and talk to a scientist in a Museum laboratory.

Grades: 2-5

Explore Fossil Mysteries

Tours held in *Fossil Mysteries*

This region has a rich fossil record. Investigate San Diego's past by trekking through 75 million years of geologic history. Interpret Museum murals and describe how the flora, fauna, and climate have changed over millions of years. Meet the great granddaddy of your pet dog and swim in the ancient San Diego Bay. Identify types of geologic plate movement by interacting with Museum models and attempt to solve the mysteries that remain as you explore fantastic fossils found in San Diego County.

Grades: 2-8

Habitats of San Diego

Tours held in *Coast to Cactus in Southern California*

San Diego is one of the most biologically diverse counties in the United States. Observe how human settlement and population increases have impacted our region's plant and animal inhabitants. Travel from the wetlands, coastal sage, riparian, chaparral and mountains, down to the desert. Learn how plants and animals adapt to the various habitats of San Diego County.

Grades: 2-8

Water

Tours held in *Water: A California Story*

San Diego imports approximately 85% of the water we use daily from outside the county. Visualize and discuss the water cycle and climate as you examine a county relief map. Interpret elements of an exhibit illustrating where our water comes from. Using photos and images, describe how our actions impact the aquatic and marine life and decide how you can conserve water in your community.

Grades: 2-12

Come to Us

Docent-led Tours on this page:

Fee for Door to the Desert: \$9 per student (includes Museum general exhibitions)

Fee for all other Tours: \$7 per student (includes Museum general exhibitions)

Group size: 32 students per 1-hour tour (10 student minimum)

Each additional student charged at respective prices.

Classes may not be combined.

WE'LL COME TO YOU

Hands-On Class Led by Ms. Frizzle

Ms. Frizzle's Classroom Adventures

Invite Ms. Frizzle, Scholastic's favorite science teacher from *The Magic School Bus*® series, to your classroom for a live, interactive performance. Students will take chances, make mistakes, and get messy with 'the Friz'. Uncover fossils with Digging into Dinosaurs, learn about pollination through Bats are Beautiful, or become familiar with the intricacies of the honeybee lifecycle in The Bee Olympics.

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Grades: Pre-K-2

Fee: \$275 for one 45-minute class; \$300 for two classes; \$350 for three classes if all performances are in the same room, otherwise additional fees apply.

Group size: 20 student minimum, 60 student maximum per 45-minute class

In the Field

Nature Hikes

Roll up your sleeves, put on your walking shoes, and discover the beauty of our own backyard—San Diego County. On your one-hour nature hike, the Museum Canyoneers (trained volunteer naturalists) will guide you through a trail that will invigorate your senses. Get up close and personal with some of our native arthropods and learn how to identify local plants.

Choose from a selection of fantastic hikes at sdnat.org/inthefield.

Grades: 2-12

Fee: \$2 per student

Group size: 15 student minimum, 32 student maximum per 1-hour hike



Hands-On Classes Led by a Museum Educator

Mesozoic Mysteries

By studying the Mesozoic Era, we gain perspective of time and how life on Earth evolves or becomes extinct. When we observe fossils we develop ideas about what dinosaurs might have looked like and how they were able to adapt to their environment. Examine illustrations to compare survival techniques of some of the most mysterious animals to have walked the planet. Classify dinosaurs, touch real fossils, and take home dinosaur prints made from clay.

Grades: Pre-K-K

Tide Pool Wonders

Tides are the natural ebb and flow of sea water along California's coast. We gain an appreciation of how animals adjust to a constantly changing habitat when we study life in a tidal zone. Gather around a rocky pool and experience the highs and lows caused by the forces of our moon. Investigate our local shoreline and make a tide pool craft to take home.

Grades: Pre-K-K

Cloud Science

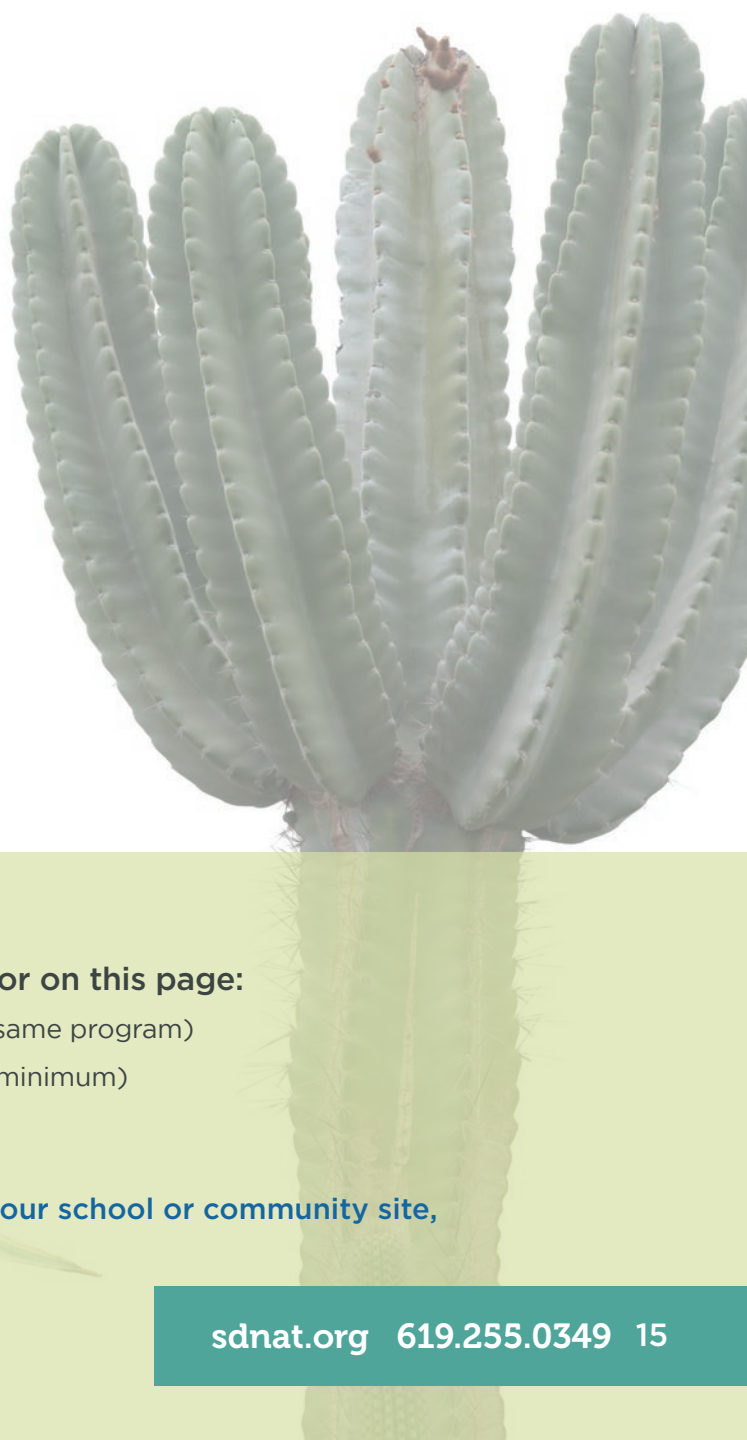
Life on our planet depends on the flow of water and the development of clouds. By observing clouds, we can predict the weather and adapt our activities accordingly. Examine the appearance and actions of cloud types through artistic expression. Feel a light sprinkle, touch a fluffy cloud, and make a cloud craft to take home.

Grades: Pre-K-1

Mammals Classified

Mammals, including humans, are one of the six main classes of animals and inhabit almost every environment on the planet. We depend on mammals every day for companionship, labor, and food. Compare and contrast traits that distinguish a mammal from other animals. Sort the clues that fur and tracks reveal and use your scientific skills to explore the diverse and fascinating world of our furry neighbors.

Grades: Pre-K-1



We'll Come to You

Hands-On Classes Led by a Museum Educator on this page:

Fee: \$170 per visit for two 1-hour classes (same day, same program)

Group size: 20 students per 1-hour class (10 student minimum)

Classes may not be combined.

If you schedule multiple classes in one day at your school or community site, all classes must be held in the same room.

Hands-On Classes Led by a Museum Educator

Native Land, Native People

(formerly Autumn Harvest Hits the Road)

The San Diego region is rich in biodiversity and offered a sustainable way of life for its native people. By studying how the Kumeyaay Nation relied on their skills and expertise, we develop an appreciation for native traditions, plants, and animals. Gain a sense of place and history of the land many people now call home. Grind acorns for flour, scrape yucca leaves for fiber, and practice your naturalist skills to live and thrive. Experience what life in the 1300s and earlier was like in San Diego and compare to today's lifestyle.

Grades: K-4

Flora and Fauna

Plants and animals are interdependent and use their structure and senses to capture and convey different kinds of information. By making scientific observations of nature, we can uncover secrets needed to understand the world around us. Investigate feathers, shells, skulls, and other Museum specimens. Exercise visual thinking skills and listen closely to discover the clues nature's evidence provides.

Grades: 1-2

Earth Detective

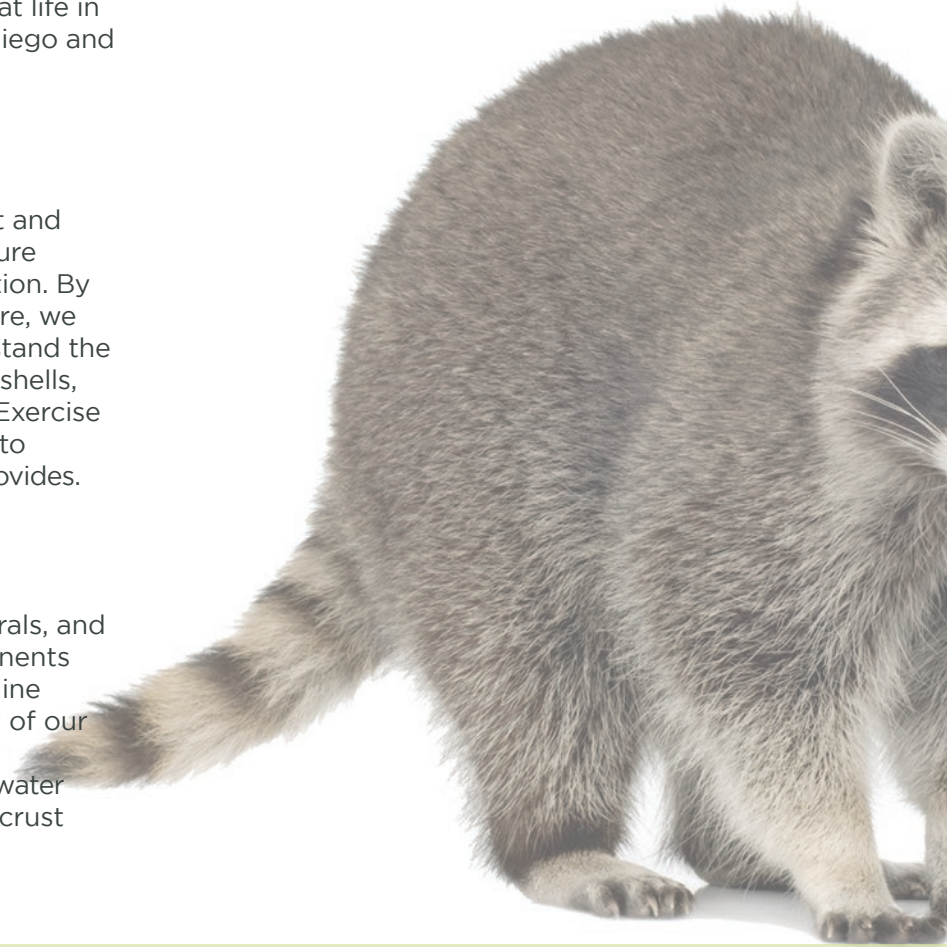
When we investigate dirt, rocks, minerals, and fossils, we discover how these components of the Earth are a part of all life. Examine minerals and how they become a part of our healthy diet. Engage in activities that reinforce weathering, erosion, and soil-water retention concepts. Crack the Earth's crust and become a geologist.

Grades: 2-3

Survivor

Life-forms adapt to meet the challenges and opportunities in an environment. Analyze and interpret survival techniques of animals by observing Museum specimens. Disturb the balance of an environment and describe how inheritance and variation of traits affect the rate of success. Invent a unique species and defend how its adaptations would allow it to survive.

Grades: 3-4



We'll Come to You

Hands-On Classes Led by a Museum Educator on this page:

Fee: \$255 per visit for two 1.5-hour classes (same day, same program)

Group size: 25 students per 1.5-hour class (10 student minimum)

Classes may not be combined.

If you schedule multiple classes in one day at your school or community site, all classes must be held in the same room.

Read a Rock

Geologists classify minerals according to their testable properties to determine their value as a usable resource. Different minerals are suited to different purposes. Rocks are also valuable resources and are evidence that Earth events can occur quickly or slowly. Organize and study a large variety of minerals, rocks, and fossils. Investigate how rocks are formed by modeling the rock cycle.

Grades: 4-5

It's Elemental-The State of Things

Chemistry is basic to an understanding of the natural world. Hypothesize if air has mass and determine the effects of air pressure. Infer how atoms move as water changes from a solid to a liquid to a gas. Establish procedures required to plan and implement a scientific investigation.

Grades: 4-5

It's Elemental-Making and Breaking Bonds

Elements are the building blocks of all matter. When we explore the periodic table to identify elements we gain a better understanding of the make-up of our planet. Take a closer look at the interactions of molecules and conduct investigations that distinguish physical reactions from chemical reactions.

Grades: 4-5



We'll Come to You

Hands-On Classes Led by a Museum Educator on this page:

Fee: \$255 per visit for two 1.5-hour classes (same day, same program)

Group size: 32 students per 1.5-hour class (10 student minimum)

Classes may not be combined.

Docent-Led Classes

Desert Dwellers

Water is scarce in the desert and survival depends on the clever acquisition and conservation of water. Identify the techniques used by plants and animals that allow them to survive in the desert. Decide how an animal who never drinks water can still call the desert its home. Come take a closer look and see why this arid area is actually a thriving habitat.

Exploring your Backyard

What is over your head, beneath your feet, and looking at you from the bushes? Recognize life all around you without leaving home because it is right in your own backyard. Classify animals by their characteristics and observe the importance of tunnels by peeking into a worm garden. Learn misconceptions about owls and decide how you can provide a safe environment for the natural world.

Foragers of the Forest

While forests provide suitable habitats for a large variety of plants and animals, life in the woods must be able to adjust to a seasonal environment. Come meet the bird that uses the pine tree as its kitchen cupboard. Follow the life cycle of the acorn as it develops into a mighty oak.

Oceans from Shore to Deep

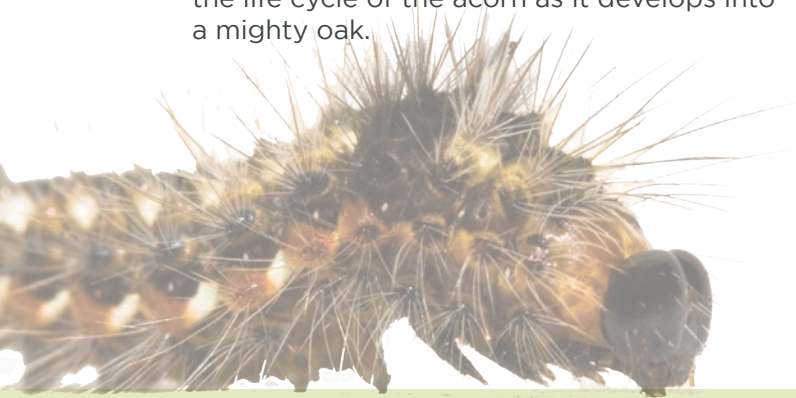
From the shores to the deep, oceans are host to a wide variety of plants and animals. Discover who lives in and visits the multi-layered kelp forest condominiums. Compare the size and shape of bird beaks and feet to see how these traits influence diet. By learning about life below sea level, we can better understand how to keep the ocean clean and healthy for its inhabitants.

Pond Pals

Ponds are freshwater ecosystems that support a complex food web. By identifying the various producers, consumers, and decomposers, we can begin to understand why forms of life around a pond are dependent upon each other. Meet the darting helicopter insect and arrange the life cycle of our pond pals, the amphibians.

Reptile Friends

The warm and arid climate of the San Diego region provides an ideal environment for several reptiles. Explore traits and adaptations of our regional lizards, turtles, and snakes. Examine skeletons, skulls, and the molted skins of the reptiles who have adapted to survive throughout San Diego. Learn how to identify dangerous snakes.



We'll Come to You

Docent-Led Classes on this page:

Grades: Pre-K-3

Fee: \$170 per visit for two 1-hour classes (same day, same program)

Group size: 25 students per 1-hour class (10 student minimum)

Classes may not be combined.

Incredible Insects and More

Bees, spiders, and even mosquitoes are vitally important to the web of life. Arrange the various stages of an arthropod life cycle. Match the arachnid to the type of web it weaves and explain how various web patterns benefit the weaver. If it crawls, flies, bites, or buzzes, we have it for you.

Grades: K-4

Life in the Desert

The desert is more than just a hot, dry, barren space. Upon closer examination, we can see the desert supports a thriving habitat. Observe and discuss adaptations necessary to survive in the desert. Be awed by the power of a flash flood. Touch fossils found in the desert and discover how we can read the story of our region's past.

Grades: 2-6

Nature's Night Life

Nocturnal animal's eyes and bodies need to adapt when hunting for food at night. Using your own senses and everyday objects you will investigate how animals have adapted to living in the dark. Manipulate an owl wing to demonstrate their stealth flying skills, learn how bats communicate, and see why mountain lions are skilled predators.

Grades: 2-6

Our Region's Habitats (formerly Roadrunners)

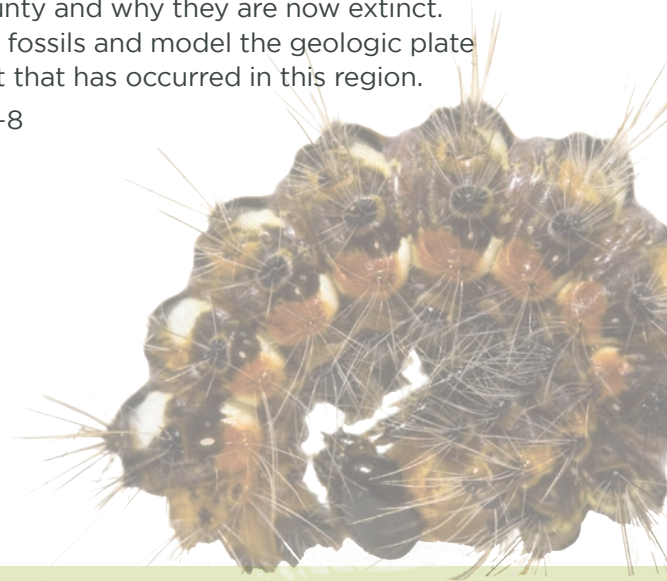
San Diego is one of the most biologically diverse counties in the United States. Human settlement and population increase have impacted our region's plant and animal inhabitants. Based on observations, form an opinion on how skunks and opossums have adapted to their changing environment. Analyze bones to identify the variety of animals living in our region and discuss the adaptation necessary for their survival.

Grades: 2-6

Fossil Tales of San Diego

This region has a rich fossil record. Investigate San Diego's past by trekking through 75 million years of geologic history. By analyzing fossils, we can infer much about the habitat and environment millions of years ago. Learn the types of dinosaurs that used to live in San Diego County and why they are now extinct. Touch real fossils and model the geologic plate movement that has occurred in this region.

Grades: 2-8



We'll Come to You

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FAMILY PROGRAMS

Wacky Science Sundays with Ms. Frizzle

Get ready to explore the wild and wacky worlds of mysterious creatures, fascinating habitats, and phenomenal science, hands-on! Wind up your mental motor and cruise on down to surf some brain waves with 'the Friz', from *The Magic School Bus*® series, in this highly interactive and engaging performance.

Wacky Science Sundays stir up a good time every Sunday, with two live performances at 12:15 and 2:15 PM.

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Visit sdnat.org/frizzle for more details.

Nature and Me Storytime

Calling all budding naturalists! Come enjoy an imaginative journey into nature through dynamic readings and visits to exhibitions. Open to all ages with a parent. (Recommended for ages 1-5 with an adult)

Nature and Me Storytime is held the second Thursday of every month at 10:15 AM.

Visit sdnat.org/storytime for more details.

Family Days

From September through May, the Museum hosts a monthly Family Day celebrating a new exhibition or a fascinating natural science. Hosted by our education department staff and instructors, we'll conduct experiments, make a craft to take home, and provide a variety of extra activities for a fun and educational family experience. You might even have a chance to meet one of our scientists!

Family Days are always 11 AM to 3 PM.

Visit sdnat.org/familydays for more details.

Birthday Parties

Celebrate your child's birthday at theNAT! Does your child love dinosaurs, reptiles, or bugs and butterflies? We can make your child's love even richer and make their next birthday one they will never forget. Our birthday program allows the birthday child and their friends to experience a fun and educational program around one of our themes. After their birthday refreshments, they can explore the Museum with the group's chaperones.

Visit sdnat.org/birthdayparties for more details.

Family Days, Nature & Me Storytime, and Wacky Science Sundays with Ms. Frizzle are included in the price of admission to the Museum. As always, these events are free for Museum members.



Canyoneer Nature Walks

Join San Diego Natural History Museum volunteers on an interpretative nature walk. Canyoneers share the rich biodiversity of the region, leading guided nature walks at the coast, the mountains, the chaparral, and the desert.

Visit sdnat.org/canyoneers for more details.

Whale Watching

Museum Whalers provide naturalist interpretation on whales and other marine life on each offshore adventure in partnership with Hornblower Cruises and Events.

Visit sdnat.org/whalewatching for more details.

NATtalks

TheNAT brings experts from around the country to speak on topics including our natural environment, history, world cultures, and art. Lecture topics often coincide with the latest exhibitions at the Museum.

Visit sdnat.org/lectures for more details.

Film Festival

Ignite your passion for adventure, action, and travel. The Banff Mountain Film Festival World Tour will exhilarate you with amazing big-screen stories.

Visit sdnat.org/filmfestivals for more details.

Winter and Spring Break Camps

Discover dinosaurs, unlock animal mysteries, and explore nature's wonder! Join us for our one-day camp experiences over winter and spring break for grades 1-5.

Registration for winter 2015 begins October 26, 2015. Priority registration for members.

Registration for spring 2016 begins January 25, 2016. Priority registration for members.

Visit sdnat.org/wintercamp or sdnat.org/springcamp for more details.

Summer Camp

Summer camp at theNAT is where it's at! Our half-day camps for Pre-K/Kindergarten and full-day camps for grades 1-8 are designed to teach and inspire children about the natural world. Through hands-on activities, exhibition tours, garden walks in the Park, and visits from Museum scientists, our campers experience just how amazing nature is.

Registration for summer 2016 begins in March. Priority registration for members.

Visit sdnat.org/summercamp for more details.

San Diego Natural History Museum

Education Department

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San Diego, CA 92112-1390

sdnat.org

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