

Junior Naturalist Program



Teacher's Packet

Desert Discovery Center
831 Barstow Rd. Barstow, CA 92311
(760) 252-6060
www.discoverytrails.org

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Dear Teacher,

We are excited to have your classroom joining us for our day program on _____ at _____ for the _____ and _____ programs. Your students will be participating in an environment-based education program that has been developed to enhance learning, motivate students, and build quality citizens. This program is sponsored by the Desert Discovery Center (DDC), which is comprised of a unique partnership between the Bureau of Land Management (BLM), National Park Service, Barstow Unified School District, Barstow Community College, Mojave River Valley Museum, City of Barstow, and the Discovery Trails Corporation.

The intent of this program is to provide experiential education regarding the role of the Mojave Desert and other natural resources in a student's life. This format gives students the opportunity to gain awareness of their connection to the bigger picture. The goal to make this experience enjoyable and fun for all involved is a pertinent aspect of our program as well. California State Curriculum Standards are met in many ways and it is our mission to make our program one that is adapted to these already important classroom standards.

Most classes are held at the DDC located at 831 Barstow Rd. The Center and its surrounding eleven acres are owned by the BLM Barstow Field Office. The DDC has various displays regarding the desert--as a home to wildlife, wild plants and people of past and present--making for a great classroom. The center also has access to the outdoors and room for varying activities, experiments and much more. The DDC is open from 11:00 a.m. to 4:00 p.m. Tuesday through Saturday and it is always encouraged that teachers or students come for a visit.

Below is an example of a typical visit the center:

9:15 a.m. Students arrive at center, receive an orientation of the grounds and our teachers introduce themselves as well as share their expectations.

9:30 a.m. Students are divided into two groups and go with their respective teachers for an exciting lesson lasting approximately 1½ to 2 hours.

11:30 a.m. Lunch break! Students should bring a sack lunch and will visit the nearby Dana Park. The student will get to practice recycling, composting and leaving a place nicer than it was found.

12:30 p.m. Student's will rotate to the lesson they have not yet experienced.

2-2:15 p.m. Students review the lessons and how they can apply them in their lives. Our staff wave goodbye as the students load onto the bus and return to the schoolyard.

The center can accommodate a group of no more than 60 students. We always look forward to a visit and will see you soon. Please do not hesitate to call with any questions.

Sincerely,

Overview of Lessons

The summaries below express the objective of each particular lesson. In addition to the descriptions, all objectives manifest by completing an activity such as a physical project, an experiential game or a field trip.

Jr. Wildlife Biologist

Grade 3rd
Program *Desert Tortoise*
Goal To expose students to the desert tortoise, its natural history, and how the student's actions affect its existence.

Grade 3rd, 4th & 5th
Program *Amazing Adaptations*
Goal Students will explore adaptations to living and discuss how recent human impacts have placed some animals at risk because they are unable to adapt fast enough to recent changes.

Jr. Ecologist

Grade 4th
Program *The A, B, C's of Ecology*
Goal Students will have a better understanding of ecology and explore how organisms interact with their environment.

Grade 4th
Program *Mojave Desert Ecosystem*
Goal Students will gain knowledge of their surrounding environment and observe native plant and animal life.

Jr. Historian

Grade 3rd & 4th
Program *They Called the Desert Home*
Goal Students will learn about six groups of people that lived and worked in the East Mojave Desert: Chemuhuevi Indians, soldiers, railroaders, miners, ranchers, and park rangers.

Grade 4th
Program *California History at Calico Ghost Town*
Goal Students learn what life was like in 1849 and the effects of the Gold Rush on settlements, daily life, politics, and the physical environment. This program will take place at Calico Ghost Town to include several rotating stations.

Grade 4th, 5th & 6th
Program *California's Trail of Tears*
Goal Students learn of the historic circumstances of the California Indians, and how events from the Spanish, Mexican, and American conquests shaped the lives and futures of California's Indian population and of today's Californians.

Jr. Geologist/Paleontologist

Grade 3rd & 4th
Program *Rock Out with Earth Science*
Goal Students will learn about the three types of rocks that are interrelated through the rock cycle and the geological history of oceans, swamps, river, and coastal sand dunes, as well as the Mojave Desert. Local geology and mining will also be explored.

Grade 5th
Program *Paleontology*
Goal Students will learn about the rocks of the western Mojave Desert from Precambrian gneiss to recent alluvial gravels and playa dry lake deposits in addition to the fossil-bearing sediments containing extensive fossil assemblage that spanned four million years of geologic time. This 2-day Saturday program will include a session at the DDC and a field trip to explore the unique geology of the Rainbow Basin Natural Area.

Jr. Hydrologist

Grade 5th
Program *Hydrology, Watersheds and Me*
Goal Students will gain basic knowledge of hydrology to include the increasing stresses on water resources resulting from population growth. Students will explore conservation as an important tool to help ensure an adequate water supply. At the conclusion of the program students identify how they can change their water use habits at home, school and work.

Jr. Archeologist

Grade 6th
Program *An Archaeological Discovery*
Goal This archaeological adventure will enable students to apply many of their scholastic abilities while learning new skills to discover how archaeologists help tell the story of the human past. This 2-day program will include a session at the DDC and a field trip to the Calico Early Man Site for a hands-on experience at a real archeological dig.

Closing the Loop

Grade 3rd-6th

Program Goal *Exploring Integrated Waste Management and Resource Conservation*
This curriculum is designed to introduce students to integrated waste management through awareness, *understanding*, and action, and to encourage students to address today's solid waste problems. The lessons focus on becoming aware of natural resources and understanding alternatives to burying waste through reducing, reusing, and recycling, thereby conserving natural resources and extending the life of landfills.

Grade 3rd-6th
Program Goal *Organics and Agriculture/Nutrition/Fitness Kickball*
This program is made to increase student's knowledge of their food and what processes are required to produce it. Also to inform the repercussions of certain agricultural practices during production and what alternatives can reduce such consequences.

Grade 3rd-6th
Program Goal *Nutrition/Fitness kickball*
Student assesses what a healthy diet is and the long-lasting results of their dietary choices through role-playing the possible disabilities that would result. They gain basic knowledge of the circulatory systems role in their lives and ways to perpetuate health with activity.

Environmental Stewardship

Grade 5th
Program Goal *Leave No Trace Ethics*
Will enable students to make better environmental decisions while enjoying recreational activities. Leave No Trace promotes minimum impact skills that apply to all outdoor enthusiasts, and are strongly supported by all four federal land agencies.

Teacher, Chaperone, and Student information

To whom it may concern: It is very important that with the time allotted for this adventure that it is used to its greatest potential benefit for the student and teacher. Below is a list of items to have and some suggestions for preparation.

- Please provide a student roster—first and last name and number of students. Please provide this information to the DDC as soon as possible.
- If there is any sort of concerns regarding students or staff it is imperative that it is brought to our attention. Please feel free to communicate any comments positive or negative, as it will help for a grander production of future programs.
- All students should bring a sack lunch and perhaps allow them a snack before arriving at the DDC to keep stomachs settled until lunchtime.
- All students should be advised to bring a full water bottle and keep it with them at all times.
- When returning to the DDC after lunch a bathroom and water fill up is advisable. (There are water fountains at the Center for refilling.)
- We request that there be at least one chaperone for every 10 children.
- Chaperones and teachers would benefit from informing children before arrival that even though they may not be within the walls of a school building they are still advised to treat the place and teachers respectfully.
- Adults need to lead by example during their time here and any assistance in keeping student's attentive is greatly appreciated.
- Please bring evaluation form to class to provide comment while there.
- Positive attitudes while around excited children is helpful for all parties involved and is always advised.

PROGRAM EVALUATION FORM

PLEASE PRINT

PROGRAM _____ DATE _____

SCHOOL _____ GRADE LEVEL _____

TEACHER(S) _____

NUMBER OF STUDENTS _____ SCHEDULED START TIME _____

What do you feel was the least beneficial part of the class? _____

What do you feel was the most beneficial part of the class? _____

What may you have done to make the class more attractive for students? _____

Did you feel well informed about what to expect? _____

Would you recommend this program to other teachers? Why or why not? _____

Would you like to continue some of these lessons in the classroom if activities and lessons were provided to you? _____

Were there any logistical problems? _____

What was your overall experience of the program? _____

COMMENTS AND SUGGESTIONS _____

STUDENT ROSTER

School _____ Date _____ Courses _____ / _____

NAME (last, first)	GRADE	TEACHER
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2		
3		
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To Whom it May Concern:

We at the DDC believe that the Jr. Naturalist Program will cultivate a learning process that will increase student's knowledge and awareness about the Mojave Desert environment and its associated challenges as a home. We appreciate your support and participation in this experience.

Our goal is that as these students advance through these courses that explicitly address knowledge and skills in the sciences and environment—while providing repeated opportunities to apply those skills—that they will develop a deep appreciation for their surrounding desert. Their desire will be to further their education and return to their desert home to give back to the community and to help educate others to become responsible stewards of the earth.

If you have any questions or comments, please contact us at the listing below. We are continually looking for people to assist in further program development and delivery. If this is of interest to you, please contact us as well. Again, thank you very much for your support and we look forward to having your class in the future.

Sincerely,

Rose Foster-Beardshear
BLM Volunteer Program Specialist
DDC Partnership Coordinator

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