

# **Summary of Educational Goals for Sky's the Limit Observatory and Nature Center**

by  
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One of the best places in the United States for astronomical viewing is in Twentynine Palms, California. With such a valuable resource, it is important to educate the public about what can be seen from our perspective on Earth, as well as our place in the universe. In addition, with more people moving to the American Southwest, it is crucial to teach the local citizenry about the desert ecosystem and how best to preserve its natural treasures. By getting a wide range of learners to participate in a hands-on, holistic, educational setting, an observatory and nature center, being planned by Sky's the Limit, will be able to enrich the public knowledge base regarding the fields of astronomy and environmental science.

As an educational facility, the observatory and nature center will educate visitors of all ages. The target audience for the site will be students from local school districts, from in and around the Morongo Basin, as well as colleges and universities. In addition, there are several groups and extension programs, such as the Desert Institute, that could take advantage of the teaching resources available at the proposed nature center. Three classrooms are being planned in addition to various outdoor locations, providing a balanced mix between formal and informal learning experiences. Various workshops and research space also provides opportunities for professional and amateur scientists to trade information with each other and the public. Such presentations can be made in either the outdoor amphitheater or the indoor viewing auditorium. Regardless of the venue required, the proposed observatory and nature center will provide a wonderful learning environment for a diverse population of learners.

The observatory and nature center offered by Sky's the Limit will, first and foremost, be a hands-on learning experience. In many of the sciences, especially in astronomy, students are often required to conceptualize major concepts without having opportunities for manipulation. It is the goal of Sky's the Limit to create practical experiences for participants to make clearer such relationships in scientific studies. One of the first projects our organization will establish on the observatory site is an orrery. Such an exhibit will have participants playing the roles of the inner planets. A drummer is located in the center of the circular display. Students will pace around "the sun" along a predetermined path modeled after the orbits of the inner planets. The activity allows those involved to witness first hand the changing positions of said celestial bodies, to observe the interrelationships and changing views of the solar system. The activity described here can be highly cross-curricular, especially when one considers the mathematic and musical concepts involved with the lesson. In addition, such a model has the unique ability to reinforce targeted objectives by allowing students to view the solar system from the "inside out" rather than looking down upon a smaller version. The orrery is just one example of the Sky's the Limit observatory providing a hands-on experience for learners of any age.

The building itself will stand as a model for sustainable construction and action towards the preservation of the local environment. One of the goals of Sky's the Limit is to increase environmental sensitivity amongst the public. A classroom will be provided, as well as nature trails and outdoor instructional posts to teach visitors about the delicate desert ecosystems, in a setting surrounded by the natural wonders found therein. Colleges and local school districts could take part in environmental data collection and studies. Environmental awareness activities won't be restricted to phenomena occurring naturally outdoors, but would also include observations of the conditions provided by a facility constructed for environmental sustainability. Visitors to the center will be able to view methods for conserving natural resources, promoting cleaner environment for future generations.

In terms of educational settings, the observatory and nature center will be highly versatile in its ability to instruct the public in the fields of astronomy and the environment. It will provide a hands-on learning experience to students of all ages and various educational backgrounds. In doing so, the site will teach visitors about the natural interactions taking place, whether they're "the smallest objects on Earth, or the colossal displays in the sky."