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## **EDUCATION ON THE MONUMENT**

In Celebration of Newberry National Volcanic Monument



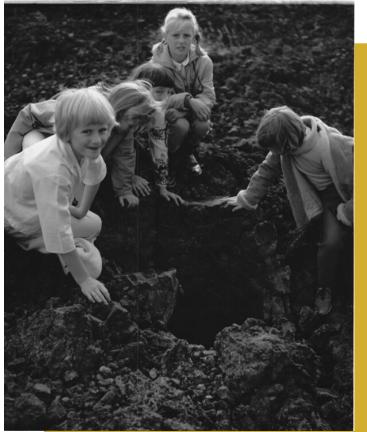
## Inspiring the Next Generation of Environmental Stewards

## Written by Discover Your Forest's Education Department

Beginning with the initial designation of the Newberry National Volcanic Monument, interpretation and education within the Monument have been two of the stated goals. Because this was included in the protection legislation, over the last 30 years, the Forest Service has developed partnerships with individuals and organizations to help further this effort. Discover Your Forest has the distinct privilege and responsibility of making this a reality here in Central Oregon. As a nonprofit partner of the Forest Service, Discover Your Forest works in tandem with our federal counterparts to imagine, create and implement opportunities for folks from around the world to learn through experience. Our school programs enable more than 12,000 local students to visit their public lands free of charge annually, 5,500 of whom experience a trip to the Monument. From school field trips to daily programs and annual special events, educational opportunities abound at the Newberry National Volcanic Monument.

Students who visit the Monument for a field trip program have the opportunity to learn about the topic of "Our Ever Changing Earth". Both Discover Your Forest and the Forest Service utilize this umbrella approach as a dominant theme for education. Newberry provides an ideal location for learning about volcanic history and the future of Newberry Volcano, as well as gaining an understanding that volcanic eruptions and other earth processes have changed the surface of the Earth in Central Oregon. They are able to learn and understand not only what has happened geologically in the past, but speculate about what might happen in the future.

Education programs at Newberry National Volcanic Monument are offered to K-12 students, as well as college students. The bulk of the programming is designed for 2nd-5th graders, with programs like Our Ever Changing Earth and Volcano in the Classroom. Opportunities for classrooms of middle and high school students include programs like Volcanoes of the Cascades and Lava River Cave Conservation. Discover Your Forest also has the privilege of occasionally working with college and university students from near and far. One such program is called Volcanoes of the High Cascades.



Tumalo Grade School at Lava Cast Forest in 1964 -Photo Courtesy of USFS

The Monument offers several sites that are perfect for self-guided programs as well. The most popular of these locations is Lava River Cave, where school groups participate in a Ranger presentation on White-nose syndrome, so they can learn the important role bats play in our local ecosystem as well as about this threat to the bat populations in North America, and take away information about how and why they can try to protect the bats. School group self-guided explorations also happen at Lava Cast Forest and Newberry Caldera, where they often check out the Big Obsidian Flow, Paulina Falls, the caldera lakes and other various trails nearby.



There are also a variety of Ranger-guided tours offered, especially at Lava Lands Visitor Center. Groups of students get the chance to explore the exhibit room at the Visitor Center, review the most recent eruptions in the Monument by studying the 3D LiDAR map, doing enrichment activities on volcanic landforms, igneous rocks and erosion, and taking a Ranger-guided hike on the Trail of the Molten Land. There, students are able to experience the lava flow up close, with descriptions and explanations along the way.

Students get to touch the sharp basalt rocks, look for rock patterns including types of eruptions that created the rock formations, signs of weathering and erosion, consider volcanic activity and monitoring, discover the source of the lava flow at the base of Lava Butte, and look for life on the lava flow. They also climb to a fantastic viewpoint overlooking the 9.5 square miles of lava flow and the High Cascade Mountain range in the distance. Giving young people the opportunity to touch what they are learning about, use their bodies to view vantage points with their own eyes and discuss in detail exactly what they are looking at, provides a type of learning that is connective and long-lasting.

Groups that wish to do self-guided tours at Lava Lands can also visit the top of Lava Butte for a short hike around the crater, and a chance to go into the first floor of a fire lookout where they can practice identifying the many High Cascade volcanoes. Students learn that a few of these peaks, including Newberry, are still potentially

active and will erupt again!

Regardless of the age of of students or content the program, Discover Your Forest has a few key objectives in our approach to education. Our hope is that every student who of takes part in one our programs will:



- Learn to enjoy the outdoors and develop a positive attitude toward the natural world
- Observe and experience nature, becoming familiar with its systems and species
- Understand the ecological web and its importance within Central Oregon and across the globe
- Become environmentally literate and assume responsibility for the future
- Understand the impact humans have on the environment and how to mitigate these impacts.

We feel particularly lucky to have a highly esteemed and awarded Education Director, as well an incredible Conservation Education Specialist on our team. They work tirelessly to dream of, research, plan for, coordinate materials, and ultimately offer interesting, interactive and important programs to the youth of Central Oregon. We fundraise constantly to provide our programs free of charge, striving to give all children the opportunity to participate regardless of their ability, language or socioeconomic status. If you would like to make a contribution toward the next generation of environmental stewards, you can do so from our website.



