



DESERT INDOORS®

Environmental Education Activities for Students at Home

(This activity was created in accordance with shelter-in-place. Remember to practice social distancing and stay local.)

Module: *The Wonderful Beauty of the California Desert*

Topic: Geology and understanding the way the desert landscape is shaped.

Objective/Learning Goal: Children will be able to use scientific knowledge to explain how water exposes different geologic formations. Students will also be able to understand how the topography of the desert is impacted by flooding.

Glossary:

- **Hypothesis** - A proposed explanation made based on limited evidence as a starting point for further investigation.
- **Porosity** - The ability of soils to take in water.
- **Topography** - A detailed description or representation on a map of the natural and artificial features of an area.

Materials: Dirt, water, measuring cups and spoons, magnifying glass (optional), paper, pencil.

Indoor and Outdoor Activity: Ask children to discuss what makes desert *topography* unique? How does rain and snow effect the topography of the desert?

We are now going to conduct experiments on what happens to the snowmelt and rainwater that flows upon the desert floor.

Go Outside - Have children think about *porosity*. What will happen if they pour a teaspoon of water onto the dirt? Have your child share their *hypothesis*. Then, put a teaspoon full of water onto the dirt. Record any observations.

- Then try pouring 2 teaspoons doing the same thing.

- Then try a whole 4 oz cup. What happens?
- Try using your own measurements?

Discussion - What happens to the sand as it becomes wet? Did you create a river? Did you cause a flash flood? What do we think will happen if all the snow around our mountains melted too quickly? Based on what we have learned what do we know about how water shapes our landscape?

Students can now go for a walk or hike (safely and with permission) noting the beauty of the desert around them, marvel at the rocks, plants, and animals in their surroundings. How did the rocks get there? How do plants and animals adapt to the ever-changing desert landscape?

We would love to hear how your science experiment went and to have you share your findings as scientists?