**Hiking the Waters Path**
By Treven Hooker

On October 10th, 2017, twenty-four fourth grade students from Mountain Vista Elementary School embarked on an adventure into Catalina State Park. This is the second expedition of the semester, and the students were more than ready for some rugged desert exploration. Here, we explored water in the desert, natural landscapes, and desert adaptations. It was a perfect day to explore and hike our beautiful Sonoran Desert.

Our adventure started off with safety talk, followed by the unique characteristics of Catalina State Park. I described the ancient architecture of the park that is built by Hohokam culture, the diverse and escalading flora and biomes, and the habitability the Santa Catalina mountains offer the surrounding landscapes. The students were excited and could not hold back any longer, so we ventured forward into the wild western desert.

We came to a wide and ancient arroyo called the Sutherland Wash. During wet seasons, this arroyo becomes a wet river that is difficult to cross. In mid-October on the other hand, it is a deep sandy bed that absorbs heat from the intense desert sun. This is no deterrent, for students found locomotive freedom in a usually constricting and hostile landscape. The youth were free to run, roll, jump, wiggle, and dig to their hearts content. We discussed the different animals that live within the desert, then had races mimicking those animals. First the students lined up and raced as desert tortoises, which as you would imagine was a slow, intense, and exciting race with no winner since each athlete grew bored and quit. So then we moved on to the roadrunner, with the requirement that students move by running three steps then taking a long jump. This was exciting, but the rhythm was hard to master. Our third attempt was the most difficult one, having students race as a rattle snake. No one backed down, and each student tried to serpentine forward. This was an exhausting way to move, and again, the race ended rather quickly. So back to the basics and the students ran like kids. This was much easier, and every student glided across the sand.

Students pulled magnets out of their bags, and used them to find any metals in the arroyo. To their astonishment the magnets were quickly coated with iron and other metals. I asked the students where this fine sediment, rock, and metal came from. Underneath the huge mountain, students forgot to observe their surroundings. They had the cause (erosion) correct, but did not see that the massive mountain towering above was slowly breaking down, and all of its internal components were leaking out into the dry riverbeds.

We left the arroyo and began our hike. Instead of a trail, we again followed an arroyo. This one was much smaller, but a perfect passage into a thick, rich and wild environment. Students practiced their ability to move across uneven and tedious terrain, but did so with gratitude. After over an hour of hiking, we stopped in a large shaded area for lunch. There, the students congregated to learn about water in the desert from a biotic and a geographical perspective. Using the arroyo, rocks were buried under a trench. This represented bedrock which aquafers sit on. This trench was at the base of a large dirt and rock mound that was built to represent a mountain. I described how Sky Island mountains such as the Santa Catalina's force condensation to rise in elevation, causing sudden precipitation. This precipitation is absorbed by permeable soil, then collected by bedrock at the base of the same Sky Island. This is the water we use, and the water that the local ecosystems depend on.

On our return, we found ourselves in a mesquite forest. Here we decided to play "hide and seek," although we put a small spin on it. To make matters more relatable, we discussed adapted camouflage, and what physical qualities local fauna had that enabled them to successfully hide. Here, the students observed their brightly colored clothing, comically recognizing the impossibility of being hidden, yet they tried anyway. A large group quickly ran into the forest and hid themselves as best they could. A smaller group labeled as the "predators" were sent out to seek and discover the "prey." It was a short game, and students expressed admiration for the natural camouflage of desert animals.

When everyone was found, and the hot day and play had drained the group of their energy at last, we made our way through the Sutherland Wash once more, then back to the vehicles. The kids were depleted in energy, but full of knowledge and experience form their Sonoran Desert adventure. Students loaded back up onto the bus, ready for air-condition, and the classroom, where they would review and study all we learned today. In a month, this group of youth will be back outside with Seeds of Stewardship, exploring and studying the endless lessons of the outdoors.

**This outing was made possible with support from Arizona Trail Association members, donors and grant funds from:**