

During this year long expedition, the 3rd and 4th grade students at SFSAS explored animal habitats. We started with the question. "What do animals need to survive?" We then directed our focus on shelter and habitats. During our first semester, students learned about habitats in the animal kingdom culminating with a transformation of our classroom into six different habitats/biomes for an evening museum.

In making the transition from animal habitats to human habitats, our class looked at a few different examples of animal construction. Our two case studies were spider webs and honeycomb. Webs were abundant around campus once we started looking, and we used our school's bee hive as an in depth investigation into comb design, materials, and construction. We harvested and tasted some of the structure as well!

As we moved into forming our ideas and conceptions around building and structures in the human world, many children saw a connection between the webs, the honeycomb, and some man-made structures. This was evident in several of their initial structure designs that we did with mini marshmallows and toothpicks.

When we came to the building of Centaurtown, we realized that these connections, although not evident from an external view, did exist internally. Students saw polygon designs and similar angles in roofs and bracing. They noticed these were most apparent in the construction of bridges, towers and spans.

We integrated math, science and engineering, social studies and literacy (the animal habitat guide book) throughout this expedition.

We then turned our focus on human habitation and architecture. After finding some similarities between the rest of the animal kingdom's habitats and ours, we started exploring basic principles of engineering and construction. "What do humans need to survive?" and then "What is a city?" and "How are buildings made?" were a few of our guiding questions. After inviting in several experts (architects, the Mayor of Santa Fe were two of our experts) and doing some city planning of our own, the class decided to create their own city, Centaurtown. Each student was part of a group of engineers or designers who worked on every aspect of the planning and building process. The final product was a scale model (3'x6') of Centaurtown.

After looking at the evolution of human structures, we arrived at one main difference between animal and human habitats. We noticed that as man-made materials and technology have changed through the years, animals are still working with the same materials and technology. Therefore we were left with one final question: what would an animal habitat look like if animals had the same access to different materials and technological development? But that's another expedition.