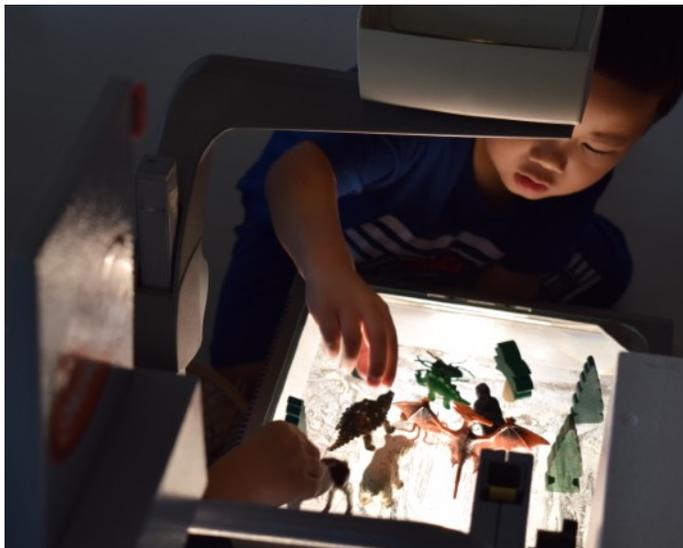


Exploring Light & Projections

August 2018 - May 2019



As Title (4.8) creates an environment lush with trees for the animals over the surface of the projector, Katoon (3.4) observes how the images appear on the wall. She could be noticing that the trees are not reflected with the proper outline of their bush because

Title had placed them vertically and not horizontally on the surface.

Ahan (4.8) discovers that if the lens is closed, the image will not project on the wall. He says to his peers, *“see, if you close this is not going to have”*. Through his conclusion, we can infer that Ahan is able to understand that the mirror is the channel that allows the light to travel to the wall.

I have observed that when the students clean-up, they always close the mirrors of both projectors, because they feel this is what turns them off, for they cannot see any more the light or shadows on the wall.



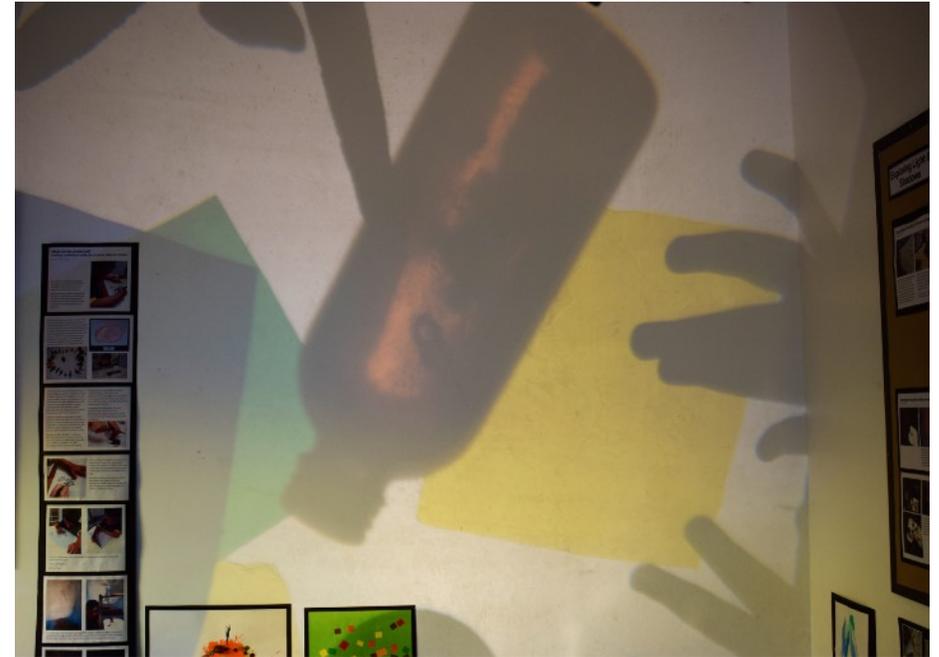
Two weeks later, after the children played, discovered, and established different ways to use the projector while they experienced with light, I observe the group dynamics.

I asked a question to all children, “*how do the the animals and the forest appear on the wall?*”... Frankie (3.11) broke the silent thoughts by stating, “*they just be there*”. Then Ahan (4.8) excitedly pointed at the light bulb and exclaimed, “*because is coming here*”, while Title (4.8) carefully pointed with him, as agreeing with his light theory. Ahan continued without a pause, “*and up here!*”, he points at the mirror (top right), then he moves to the wall, points at the animals and finishes his statement by saying, “*and up there!*” (bottom right).





As the year progressed the children continued to tell stories by playing with the animals and forest backgrounds, especially with other environments that their peers illustrated. When we got to explore shapes in our discovery about what the concept of *place* is, the children were excited to use translucent 2D and 3D shapes as they started to tell other stories. They liked seeing more colors on the wall and ceiling and they were able to see the sides and corners of each solid and flat shape. It was a great opportunity for them to start building different structures while noticing the in-depth geometric component that was visible as the light projected through their houses.



After the use and application of the translucent shapes, we also brought similar paper that we had used earlier in the year to see how colors are mixed. Since there were now more materials interacting with the projector, the children started becoming more risk-takers by bringing other items to experiment with.

Here, Luke (3.5) has meticulously placed some translucent papers and the red sensory bottle. He then checks on the wall to see how the colors appear. Next, he starts moving the items several times, especially the bottle because he can see that the things inside it are moving on the wall as the light projects them. Perhaps Luke is in the process of understanding how light travels through the water.