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Looking for Life

Lesson Review: Looking for Life

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I did the Looking for Life Activity with my students. We are currently focusing on biology in class leading into focusing on ecosystems and biomes. We had just learned about the characteristics of life, so fitting this lesson into the district's unit worked really well and made students think of life in larger aspects than just what is here on earth. This lesson requires students to apply their knowledge about what characterizes life to the concept of what life could be outside of our planet using simulated 'soil samples'.

For the lesson, we skipped part one with the Criteria for Life Log Charts for two reasons. One, we had just covered the characteristics for life as part of the school's curriculum and had done a similar activity. Two, several of my students have physical impairments and it would have taken too much time and energy for the students to get outside and complete this activity considering it was repetitive.

Instead of having the students in groups I just had the class work as a whole since I only have nine students. The students have lab journals that they filled out the stages of the scientific method. The students used the data sheets from the JPL website and glued them into their science journals. The students really took their time describing and drawing the three samples. They loved watching the reactions when we added the water. The students collected data observations on the reactions and how long it took for the materials in the cups settle (for those that did). The students were fascinated with the difference in the appearance of the water in the cups of samples. My students drew the conclusion that the sample cup with the yeast in it had to have something extra special since there were bubbles still appearing after a long period of time and the volume of the mixture appeared to rise compared to the other two samples. However, they did not at this point understand that those descriptions were signs of life. They stuck to the

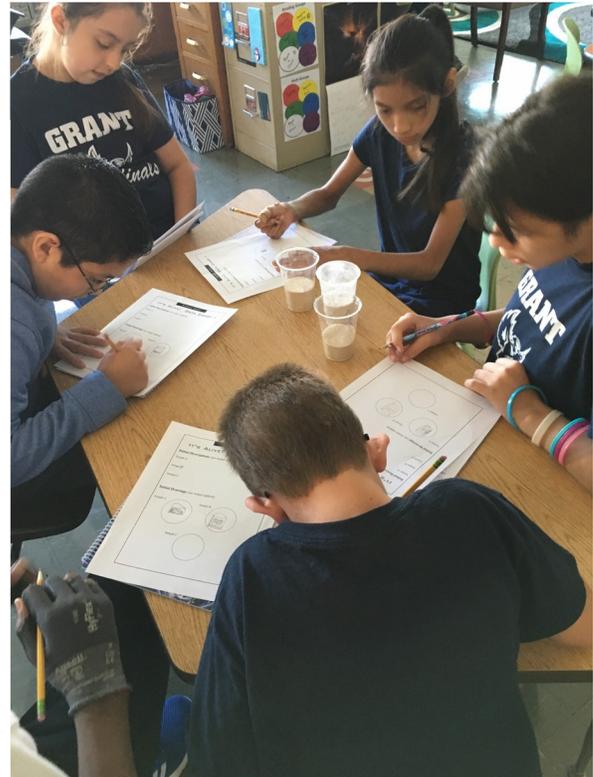
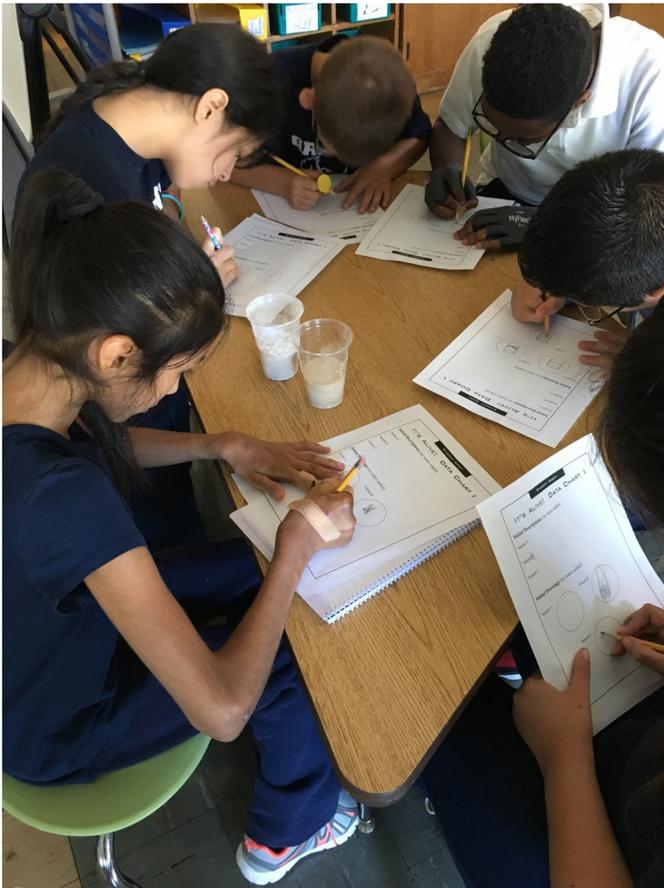
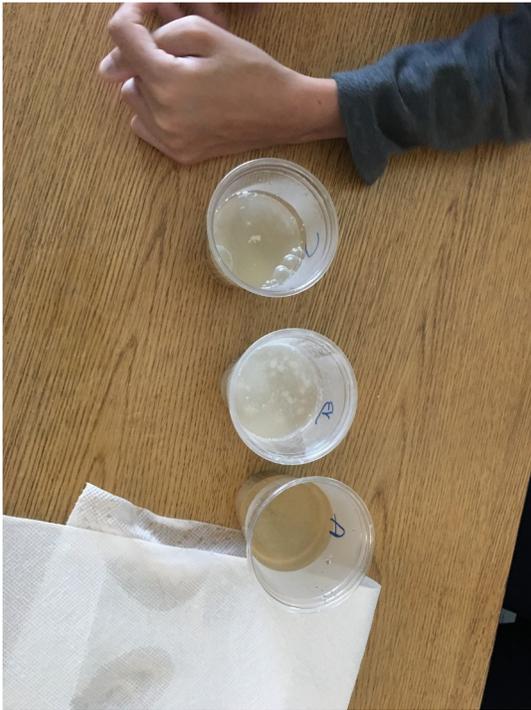
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pretty literal sense of the cups have 'soil' in them. As a group we went over the characteristics of life and connected that to the observations they made of sample 3.

I liked doing this activity and I felt it caused the students to think about life in terms outside our community and our planet and to have deep and philosophical discussions about life and what is life. However, it was hard for my students to independently grasp the greater nuances of this activity. I think they needed more background information about chemicals, chemical changes, and yeast/microorganisms. I did not think about my students not having background knowledge in yeast. I am also glad that this activity drew my attention to some misconceptions and gaps of understanding my students had about microorganisms. The students understood the activity better after I explained about chemicals and yeast. To help my students understand more the idea of microscopic life and microorganisms, we watched a YouTube video called Learning about Microorganism. This really helped my students understand how the yeast could be so small and yet still be alive.

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References

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