Name: Ms. Michael	**Grade:** Kindergarten	**Date:** TBD
Content Area: Science	**Unit:** Living Things	**Lesson:** n/a

Lesson Overview	In this lesson, students will explore the fundamental needs of plants. They will explore an online simulator that mimics the life of a small plant. Students will then be asked to write about what they have learned in a short "how-to". **FYI:** This lesson is somewhat of an introduction so keep it simple! Let students explore and have them lead their learning.
Learning Target	Students will be able to observe in order to describe patterns highlighting what plants need to survive. Students will use words and pictures to describe 3 needs of a plant.
Standards	**K-LS-1-1.** ***Use observations to describe patterns of what plants and animals (including humans) need to survive****. [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.]* **K-W-2.** Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
Materials Needed	- chromebooks for students - projector or smart board to display simulator to whole group (computer and HDMI cord) - *Living Things* anchor chart (see below for example) - online plant simulation from Science Kids https://www.sciencekids.co.nz/gamesactivities/plantsgrow.html - "how-to" papers - pencils and crayons for students Follow this link to some Google Slides outlining the exact material needed.
Safety/Privacy Considerations	**Note:** All chromebooks used are locked from youtube and similar sites to protect children from getting into things they shouldn't. It is important to monitor students closely when using technology and ensure proper precautions are set up on their devices. Ensure you have permission from parents to use technology in the classroom. In my classroom all students have permission so you just need to monitor them closely.
Introduction to Lesson (10-15 Minutes)	Review the anchor chart from the previous lesson or create one together (see linked slides). Ask the students to share what they know about living things and write it down on the anchor chart to provide a visual. Then tell them that they are going to continue learning about how to keep living things alive. Display a screen on the smart board and go through the plant simulator from SMARTKIDS.com. Try the simulator once together and have the students help you decide what to do in order to help our plant grow. Next, instruct students to return to their seats and attempt the simulator on their own. Give them 5-10 minutes to explore as you walk around and monitor. After about a minute, remind students to pay close attention to what they are doing/what works.

Guided Practice (5 Minutes)	Bring students back to the carpet and tell them about the “how-to” they will be writing. Model one step for them: “Plants need water to live.” Then draw a picture. Make the expectation clear that each step should be about a different plant need. 3 steps = 3 needs. On the back, tell students they need to draw a picture of something non-living when they are done with the front and waiting for others to finish. Tell students they can use both words and pictures to show their knowledge (pictures alone are sufficient for ELL or struggling students). Scientists use detailed pictures so the students should too (see example in slides). Ask students if they have any questions then pass out the papers and release them to their desks.
Independent Practice (20 Minutes)	Students should work silently at their desks. After about 5 minutes, interrupt students briefly and inform them that if they are struggling and need extra help they can come to the front of the class and try the simulator another time to give them more ideas. Monitor this closely to ensure the students utilize the simulator correctly. After one try, the student needs to return to their desk and get back to work. Students should work independently for the entire time given. When the majority of students are done (or in 20 minutes) have them turn to the person next to them and share the needs they wrote about. Only give them about a minute to discuss and then release quit tables to turn in their papers and return to the carpet.
Closing/ Transition of Lesson (5 Minutes)	Discussion and a share. Students will turn in their papers and return to the carpet. First begin by returning to the anchor chart (from previous lessons in the unit- see slides for an example) and asking the students if they thought of anything else to add. We will either add to it or review the old things depending on what students say. Then, students will listen respectfully as 2 students share their writing from that day. (select students at your own discretion- who did something well, or a mistake everyone could learn from) They will share using the document camera so all students can see the work being shown.
Assessment	Students will turn in their work in order to be evaluated . They will not receive a grade but the evaluation will help you see who was on task and what the students know. This assignment will help you learn where to take the unit next. Find an example worksheet and evaluation criteria in the linked slides.