

3rd Grade Reflection on STEM activities

Grade Level	August	September	October	November	December	
3rd Grade	Diaper Experiment	Defined STEM - Botanical Gardens	Adaptation Artistry - Create your own bird	Light - Design shades for a home	Defined STEM - Drums	
Did we state a problem or issue to solve? Refine	Do generic diapers hold less, more or equal amounts of liquid? Do you get better quality diapers using name brand versus generic brands?	Given a region in the US, students are to create a garden that has plants native to that area, also need to include large gathering areas and recreational areas.	TASK: Design a bird with any type of adaptations that they imagine and define the bird's habitat and food based on the adaptations they chose.	You have been hired by homeowners to design shades for their home. The customers do not want the same shade on all rooms. They want various blinds to create different sun exposure in each room. Your task is to create blinds for each room to meet the needs of your customer.	TASK: "You and your team of musicians will create drums made from many different materials. The visitors will test each drum to see how the different materials used change the sound of the drums. Your team will be playing the drums for visitors at the Museum of Making Music. The visitors will be excited to learn about the different materials used to make the drums."	
Did we Follow the Engineering Process (Imagine, plan, create, improve, ask)? Refine	<p><u>Imagine</u>: Imagine a solution to a given problem (Is a generic diaper as effective as a name brand diaper?)</p> <p><u>Plan</u>: Procedures of experiment.</p> <p><u>Create</u>: Performing the procedure to perform the experiment to create a solution.</p> <p><u>Improve</u>: Complete reflection questions at the end of experiment</p>	<p><u>Imagine</u>: a place for plants, animals to thrive and humans to play</p> <p><u>Plan</u>: what plants will survive in your region</p> <p><u>Create</u>: a garden that is aesthetically pleasing and serves a purpose in your region</p> <p><u>Improve</u>: Does you plan meet the needs of the community</p>	<p><u>Imagine</u>: a bird with both structural adaptations and how will they use the adaptations to survive</p> <p><u>Plan</u>: adaptations that improves organism's survival in the given environment/habitat</p> <p><u>Create</u>: a bird that is able to survive in the environment using their physical and behavioral adaptations</p> <p><u>Improve</u>: Can this animal survive in the given environment?</p>	<p><u>Imagine</u>: Imagine a solution to a given problem (Which materials will reflect, refract or absorb the sun?)</p> <p><u>Plan</u>: Plan a model of the home, plan layout of each room to determine desired amount of sunlight, and where the windows will be located in each room</p> <p><u>Create</u>: Create a model of the house and window blinds for each room using various give materials.</p> <p><u>Improve</u>: If the planned blind does not provide desired lighting, student must recraet the blinds and determine what they should use to improve their design</p>	<p><u>Imagine</u>: a drum that can produce various pitches</p> <p><u>Plan</u>: will the materials selected produce the desired sounds</p> <p><u>Create</u>: a drum that can produce both high and low pitches</p> <p><u>Improve</u>: Does your drum make high and low pitches</p>	