



First Grade Problems

Grade 1

1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs



What vexes your first graders? Children will learn problem solving skills as they explore animal and plant adaptations and discover how people can use these same ideas to invent solutions. Through matching activities with animal and plant artifacts, and a hike on our reserve, students will gain a deeper understanding of biomimicry. Then we'll poll the students for a list of things that make their lives difficult. Back at school, small teams of students will work together to engineer a solution to one of the student generated problems, using nature for inspiration.

Examples of Problems:

I can't reach things

My seat is uncomfortable

My hands get slippery on the monkey bars



Science/Engineering Practice:	Disciplinary Core Idea:	Cross Cutting Concept:
<p>Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</p>	<p>LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. LS1.D: Information Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive.</p>	<p>Structure and Function The shape and stability of structures of natural and designed objects are related to their function(s). Influence of Science, Engineering and Technology on Society and the Natural World Every human-made product is designed by applying some knowledge of the natural world and is built using materials</p>

	Plants also respond to some external inputs.	derived from the natural world
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This program is designed to advance your student's knowledge and understanding of the following Life Science and Engineering Standards:

1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.