

From the Kodo Classroom



Build a Simple Machine: Solve a Problem in Your Community

Simple machines or tools were created to solve problems and make tasks easier. Take a walk around your school or neighborhood community and invite children to identify a problem or area that can be improved. Example: A child observes that parents and caregivers have a difficult time holding the door open as they push a stroller in. They design a tool or simple machine to help solve this problem.

Offer paper, clip boards, and drawing materials to children. They can draw their ideas and tools as they observe in their community. Once back in the classroom, invite children to use their drawings to create prototypes of their tools. Recycled materials such as containers, cardboard, and foamcore are perfect for this part of the design process.

The Design Process: Valuing Process Over Product

During the design and prototyping process, encourage children to test out any and all ideas. This experience shouldn't focus solely on the product that is designed at the end, but rather on the process that children work through as they draw, build, problem solve, and think.

Look and Listen for Learning

Material Properties

Persistence

Problem Solving

Use of Tools

Vocabulary:

simple machines, tool, problem, solution, prototype, test, design, construct, strategy

Open-Ended Questions

- What kind of tool will you design?
- What problem will it solve?
- What other strategy can you try?