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Structures

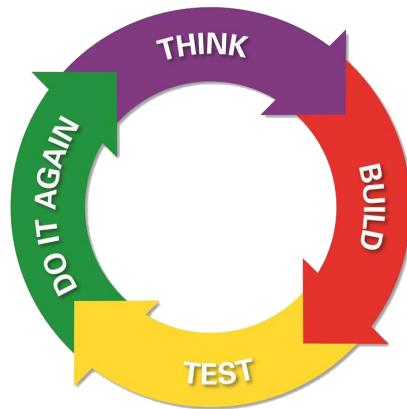
Engineering Design Process

Think, Build, Test, Do It Again

That's the process engineers use when they tackle a problem.

Engineers don't have official rules telling them to follow this set of steps. But, over time they've learned that **they get the best results this way**.

They **think** and brainstorm about a problem and factors they have to consider to solve it. They come up with an idea and **build** a prototype. They **test** the prototype. And, then they **repeat** the process to improve their results.



It Takes a Lot of Back and Forth

Engineers often **move back and forth within the loop**, repeating two steps over and over again before moving forward. It's a key to engineering success. Sometimes, engineers will focus on one specific step, and when complete, pass the project off to another team with a different skill set.

Engineers are creative problem solvers!

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Scientific Concept: Physics, structures

Recommended Ages: 5 to 12

Scientific Practice: Engineering

What to know about this kit:

Engineer a variety of structures with KEVA planks and cardboard pieces. The cardboard pieces are engineered to create models of famous buildings. The KEVA planks are a great material to use because you can create almost anything with them. Use these cards for some challenges to see how well you can translate 2D to 3D thinking. And see what you can build from your own imagination.

*Please note: This kit must be returned to a **staff member** at an **Anchorage Public Library** location.*





Kit Contents & Replacement Costs		
Item Type	Description	Cost
Object	KEVA planks (set of 40)	\$20
Object & Book	Super Structures book and cardboard building set (book, cardboard box/ building base, screws & rope, green, red, yellow, gray pieces)	\$25
booklet	Brain Builders Challenge Cards	n/a
booklet	Brain Builders Challenge Cards JUNIOR	n/a
Book	<i>Curious Constructions</i> by Michael Hearst	\$20
Packaging & Processing Fee:		\$25
Total Kit Replacement Cost:		\$90

