

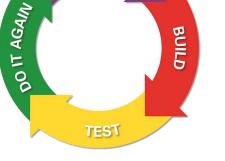
### **Engineering Design Process**

#### 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.



THINK

#### 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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# Magnets

Scientific Concept:	Magnetic fields
Recommended Ages:	4 to 8
Scientific Practice:	Engineering

## What to know about this kit:

Explore the world of magnetic fields, cause & effect, and problem solving by conducting experiments with magnets.

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



Kit Contents & Replacement Costs		
ltem Type	Description	Cost
Object	STEM Magnet Kit (24 pieces)	\$25
Book	What Makes a Magnet?	\$7
Book	Magnets Push, Magnets Pull	\$5
Packaging & Processing Fee:		\$25
Total Kit Replacement Cost:		\$62

