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## J-KIT STEM

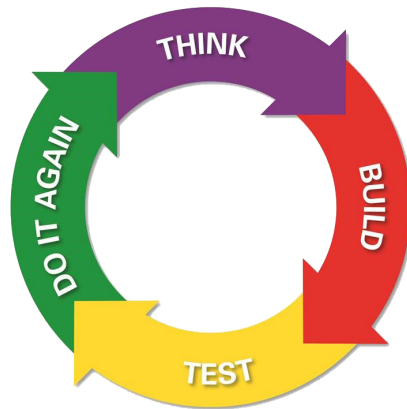
# Electricity & Magnetism

### 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: Energy, circuits

Recommended Ages: 8 to 12

Scientific Practice: Engineering

### What to know about this kit:

Using simple snap together parts, conduct more than 60 experiments with electricity and magnets. You can build functional devices, learn about magnets and figure out how it all goes together with electromagnetism to see how that could be used in the real world.

*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	Thames & Kosmos Electricity & Magnetism set (60 pieces)	\$60
Leaflet	Thames & Kosmos experiment manual	n/a
Book	<i>Investigating Magnetism</i>	\$10
Book	<i>Experiments with Electricity and Magnets</i>	\$12
Packaging & Processing Fee:		\$25
<b>Total Kit Replacement Cost:</b>		<b>\$107</b>



Please verify all parts are present before returning.