Did you enjoy this kit? We'd love to see how you used it! Tag us on social media and let us know! #APLstem Twitter: @anchlibrary Facebook & Instagram: @anchoragelibrary

Scientific Method

Ask questions, test the answers, do it again.

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

Observations lead to a question. Possible answers are called **hypotheses.** You can test these in many ways such as with an experiment, a mathematical analysis, creating a model, and more observation.



Next the scientists **analyze** their results to come to a **conclusion** that supports or rejects their hypothesis.

Sometimes this process leads to new observations which lead to new questions.

Experiments need to be repeatable by other teams to see if they get the same results. A hypothesis that repeatedly is validated (found to be true in testing) can become a scientific theory.

Scientists are always observing, questioning, and repeating experiments to keep learning!

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J-KIT STEM

Light Waves

| Scientific Concept: | Light Waves |
|----------------------|----------------------|
| Recommended Ages: | 6 to 10 |
| Scientific Practice: | Observation, Inquiry |

What to Know About This Kit

This kit includes a set of prisms and lenses that can be used to bend light. Bending light helps us understand light waves and then you can understand the workings of magnifying glasses, telescopes, and even the human eye.

You can use this kit with the included pen light or sunlight!

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



| Kit Contents & Replacement Costs | | |
|----------------------------------|---|-------|
| Item Type | Description | Cost |
| Object | Lens & Prisms Kit | \$35 |
| Object | Penlight | \$16 |
| Leaflet | Prism Activity Guide | n/a |
| Book | Light Waves by David Adler | \$18 |
| Book | Exploring the Science of Light: 30+ Illuminating Experiments and Colorful Science Activities | \$15 |
| Packaging & Processing Fee: | | \$25 |
| Total Kit Replacement Cost: | | \$109 |

Please verify all parts listed above or pictured to the right are present before returning. Your observation and data sheets are yours to keep.



Pen Light (twist the end to focus the light beam)