**Science and Engineering Practices in the Science Standards for Alaska**

The Science Standards for Alaska focus heavily on students engaging in the practices of science and engineering, to assist them in figuring out the natural world and solving problems.

**The Science and Engineering Practices include:**

**Asking questions and defining problems**  
Students ask questions and define problems that require solutions as they investigate phenomena in the world around them.

**Developing and using models**  
Students develop and use models to discuss their ideas. Models can include drawings, 3-dimensional representations, and simulations, etc.

**Planning and carrying out investigations**Students plan investigations that isolate variables, and collect meaningful data.

**Analyzing and interpreting data**  
Students analyze data from personal investigations or from other data sets available from sources such as NOAA, NASA, US Census Bureau, etc.

**Using mathematics and computational thinking**Students use mathematics to assist in analyzing data, and determining possible relationships.

**Constructing explanations and designing solutions**Constructing explanations to describe data and any conclusions along with supporting evidence.

**Engaging in argument from evidence**Use evidence from investigations, data analysis, etc. to support claims made regarding a particular topic.

**Obtaining, evaluating, and communicating information**Gather evidence from a variety of sources, evaluate the information, and communicate findings.