**Performance Expectations in the Science Standards for Alaska**

The Science Standards for Alaska are expressed as Performance Expectations. Performance Expectations are statements about what students should know and be able to do at the end of instruction. Each performance expectation combines the practices of science and engineering, the disciplinary core ideas, and the cross cutting concepts into a single statement of what is to be assessed. These are the elements of Three Dimensional Learning.

The Performance Expectations in the Science Standards for Alaska are targets for assessment. For students to achieve such performances, they will need regular opportunities to engage in learning that blends all three dimensions of the standards throughout their classroom experiences, from Kindergarten through High School. The performance expectations set the learning goals for students, then students, teachers, and districts decide how to reach those learning targets.

When instruction is consistent with the *Framework for K-12 Science Education*, students will be actively engaged in the full range of scientific and engineering practices and applying the crosscutting concepts in the context of investigating multiple core ideas.

In Three Dimensional Learning, student work is driven by questions arising from phenomena or by an engineering design problem. Students are supported in connecting their learning across units and courses to build a coherent understanding of science ideas and of the crosscutting concepts.

Students have opportunities to apply their developing science knowledge to explain phenomena or design solutions to real world problems. They interact with others as they conduct investigations; represent data; interpret evidence; gather additional information, and develop explanations, models, and arguments.

The Science Content Standards for Alaska are for all students, and all students are expected to achieve proficiency with respect to all of the performance expectations in the Alaska standards.

The Science Content Standards for Alaska provide a foundation for rigorous advanced courses in science or engineering that some students may choose to take. Students interested in pursuing science further (through Advanced Placement or other advanced courses) should have the opportunity to do so.