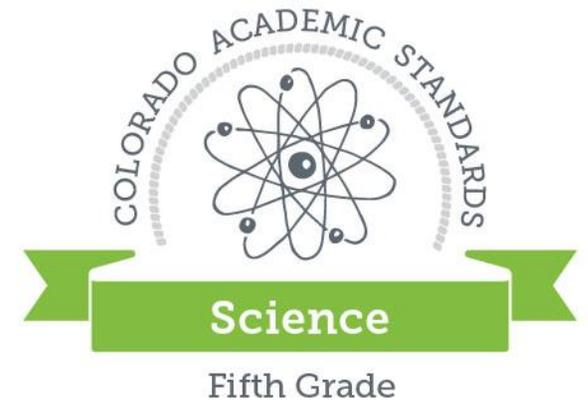


A Guide to the Colorado Academic Standards



Working Together

To support families and teachers in realizing the goals of the Colorado Academic Standards, this guide provides an overview of the learning expectations for Fifth Grade Science. This guide offers some learning experiences students may engage in during this school year, experiences that may also be supported at home.

Why Standards?

Created by Coloradans for Colorado students, the Colorado Academic Standards provide a grade-by-grade road map to help ensure students are successful in college, careers, and life. The standards aim to improve what students learn and how they learn in ten content areas – emphasizing critical-thinking, creativity, problem solving, collaboration, and communication as important life skills in the 21st century.

Science for Elementary Schools (k-5)

The science standards in the elementary grades lay the foundation for students to work as scientists by asking testable questions, collecting and analyzing different types of evidence, and by providing rationales for their interpretations. Mastery of these standards will result in students who have a deep understanding of science and how scientific knowledge can provide solutions to practical problems.

Where can I learn more?

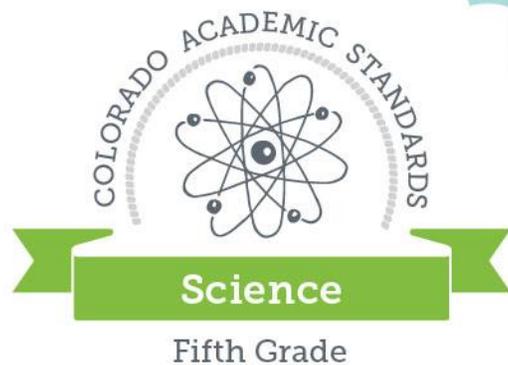
- Contact your school district regarding local decisions related to standards, curriculum, resources, and instruction.
- Colorado Academic Standards Booklets: <http://www.cde.state.co.us/standardsandinstruction/GradeLevelBooks.asp>
- Joanna Bruno, Science Content Specialist at 303-919-3907, Bruno_j@cde.state.co.us



COLORADO
Department of Education

Colorado
PTA
everychild. onevoice.

At the end of
Fifth Grade,
students can...



Science Learning Expectations for Fifth Grade

Physical Science

Describe how mixtures of matter can be separated regardless of how they are created; recognizing that the weight and mass of a mixture is equal to the weight and mass of its parts; review and analyze information presented by peers and provide feedback on their evidence and scientific reasoning.

Life Science

Understand that all organisms have structures and systems with unique functions; identify the strengths and weaknesses of models that represent natural phenomenon.

Earth Science

Understand that the Earth and sun provide many renewable and nonrenewable resources; recognize that Earth's surface changes constantly; understand how the uneven heating of Earth's surface (by the sun) affects weather and that these effects are reflected in changes in temperature, air pressure, wind speed, and the amount water in the atmosphere; understand how weather maps can be used to predict changes in weather.

Throughout the Fifth Grade, you may find students...

- Developing, communicating, and justifying a procedure to separate simple mixtures (mud and rocks, salt and sand) based on physical properties; communicating the impact on a liquid mixture's weight or mass before and after it is separated into parts.
- Analyzing and interpreting information (data) about how the structure of an organism helps it survive; exploring the interdependence of plants and animals.
- Creating and evaluating models of plant and/or animal systems or parts; comparing and contrasting a human system to other organisms.
- Using a variety of data to understand the origin, use, and preservation of natural resources; exploring local resources and their uses.
- Identifying how and why the Earth's surface changes through a variety of processes and forces (erosion, solar influences, climate, human activity).
- Gathering, analyzing, and interpreting data such as temperature, air pressure, wind, and humidity in relation to daily (local) weather conditions; describing weather conditions based on data collected using a variety of weather tools (thermometer, barometer).