

Golden Triangle Cooperative

Science Curriculum

3rd Grade Objectives

GTCC= Golden Triangle Coop Curriculum

SCI= Science

Montana K-12 Science Content Standards <http://opi.mt.gov/PDF/Standards/10ContStds-Science.pdf>

Next Generation Science Standards <http://www.nextgenscience.org/search-standards-dci>

Essential Understandings Regarding Montana Indians

<http://www.opi.mt.gov/pdf/IndianEd/Resources/essentialunderstandings.pdf>

* Objectives with the alignment codes “EU = Essential Understandings” will directly incorporate Indian Education for All

General Learner Objectives

Elementary K-4

- GTCC.3.SCI.1 Demonstrate safe use a variety of science equipment. (S1B4#1,2) (S2B4#1,2,4,5,6,7)
- GTCC.3.SCI.2 Cooperatively work in groups, organizing and managing group and individual responsibilities. (S2B4#2) (S5B4#2,3)
- GTCC.3.SCI.3 Observe, classify, and group objects or events and/or draw inferences based on similar characteristics. (S1B4#3,4,6) (S2B4#1,3,4,6,7) (S3B4#1-5) (S4B4#1-7) (S5B4#1-4) (S6B4#1-3)
- GTCC.3.SCI.4 Develop explanations for events based on observation, infer the possible cause and effect of an event and predict based upon past experiences. (S1B4#3,4,6) (S2B4#1-7) (S3B4#1-5) (S4B4#1-7) (S5B4#1-4) (S6B4#1-3)
- GTCC.3.SCI.5 Convey information through the use of oral, written and graphic communications according to appropriate grade level. (S1B4#3) (S2B4#1,3,4,6,7) (S3B4#1-5) (S4B4#1-7) (S5B4#1-4) (S6B4#1-3)

- GTCC.3.SCI.6 Demonstrate proper care and handling of living organisms and show respect for life. (S1B4#1) (S3B4#1,2)
- GTCC.3.SCI.7 Identify a variety of occupations related to science. (S1B4#3) (S5B4#1-5) (S6B4#1-3)
- GTCC.3.SCI.8 Practice the scientific process in order to acquire and apply critical thinking and problem solving strategies to perform experiments and draw conclusions. (S1B4#1-6) (S2B4#1,4,6,7) (S3B4#1-5) (S4B4#1-7) (S5B4#1,2,4)

Specific Learner Objectives

Plants

- GTCC.3.SCI.9 Observe, identify, and classification the characteristics of leaves.
- GTCC.3.SCI.10 Demonstrate how one or more variables affects plant growth. (S3B4#4)
- GTCC.3.SCI.11 Identify and illustrate interrelationships in food chains and types of habitats. (S3B4#2) EU3
- GTCC.3.SCI.12 Identify types of plant habitats. (S3B4#5)
- GTCC.3.SCI.13 Identify and explain the factors necessary for maintaining the balance of nature, conservation, preservation and efficient use of natural resources. (S1B4#6) (S5B4#3) EU7
- GTCC.3.SCI.14 Propose how a plant would have to adapt in order to survive in an environment. (S1B4#1) (S3B4#4)
- GTCC.3.SCI.15 Compare and contrast the needs (e.g. food, air, water, sun) and abilities (e.g. move, grow, changes) of living things: (S3B4#2,3) EU3
- GTCC.3.SCI.16 Propose, observe, collect, organize, and evaluate data while growing plants under various conditions. (S1B4#1,2,3,4,5)

Animals

- GTCC.3.SCI.17 Observe, identify and classify the characteristics of the major animal kingdoms (birds, insects, mammals, reptiles, fish, amphibians). (S3B4#3,5)
- GTCC.3.SCI.18 Identify species of animals that are extinct and describe possible reasons for extinction, including manmade and natural reasons. (S3B4#4) (S4B4#3)
- GTCC.3.SCI.19 Identify and examine what is being done to protect endangered species. (S1B4#1) (S3B4#4) (S5B4#4) EU7

GTCC.3.SCI.20 Explain how fossils help to understand the past. (S5B4#1) (S6B4#1)

Earth Science

GTCC.3.SCI.21 Demonstrate the water cycle and its effect on weather/climate conditions in different environments. (S4B4#4) EU3

GTCC.3.SCI.22 Identify properties of water and their uses. (S1B4#5) (S4B4#2)

GTCC.3.SCI.23 Compare and contrast properties of water with other liquids. (S2B4#2) (S4B4#2)

GTCC.3.SCI.24 Compare and contrast ecosystems and their effects on organisms in that environment. (S3B4#4) EU3

GTCC.3.SCI.25 Identify and demonstrate ways in which the earth is constantly changing (e.g. erosion and weathering, volcanoes and earthquakes, and rock formation and cycle). (S1B4#1) (S4B4#1,2) (S5B4#1,3,4) (S6B4#1) EU7

Physical Science

GTCC.3.SCI.26 Identify, design, construct, and demonstrate the simple and compound machines. (S1B4#4) (S2B4#5,6) EU3; EU6

GTCC.3.SCI.27 Describe forms of energy such as light electricity, heat, motion, magnetism and gravity. (S2B4#6,7) EU1

GTCC.3.SCI.28 Identify and discuss various ways of conserving energy. (S5B4#3,4)

GTCC.3.SCI.29 Demonstrate the use of a thermometer. (S1B4#2) (S4B4#4)

GTCC.3.SCI.30 Identify and discuss the properties of sound. (S2B4#3,7)

GTCC.3.SCI.31 Identify the three states of matter and their properties. (S2B4#4)

GTCC.3.SCI.32 Demonstrate changes in the physical environment locally and globally. (S3B4#4) (S5B4#1)

Solar System

GTCC.3.SCI.33 Identify the planets of our solar system and discuss what makes them unique. (S4B4#6)

GTCC.3.SCI.34 Explain that the sun is a star, the center of our solar system, and life would not exist without it. (S4B4#6) EU3