

Project: Blackfeet Tools

Biography:

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Essential Understanding:

EU #1: There is great diversity among the 12 tribal Nations of Montana in their languages, cultures, histories, and governments. Each Nation has a distinct and unique cultural heritage that contributes to modern Montana.

Montana Accreditation Standards:

Science Content Standard 4:

“Students demonstrate knowledge of the composition, structures, processes and interactions of Earth’s systems and other objects in space.”

Benchmark # 1: model and explain the internal structure of the Earth and describe the formation and composition of Earth’s external features in terms of the rock cycle and plate tectonics. (Grade 8)

Benchmark #2: differentiate between rocks and classify rocks by how they are formed. (Grade 8)

Science Content Standard 5:

“Students understand how scientific knowledge and technological developments impact society.”

Benchmark #4: apply scientific knowledge and process skills to understand issues and everyday events. (Grade 8)

GTCC Curriculum Guidelines

GR6.20 – The student will evaluate differing viewpoints regarding natural resources and use and conservation

GR6.24 – The student will investigate the relationship between Plate Tectonics and volcanoes and earthquakes.

ESCI.07 – The student will apply mineral identification techniques to identify common rocks and classify them according to their origin.

Bloom's Taxonomy:

Knowledge- Vocabulary

Comprehension-Summary of Data presented

Application-Making of Tools.

Analysis-How the Blackfeet differed from other Tribes

Synthesis-Making of Tools

Evaluation-Critique ones function of tools

Grade Level: Grades 6-8

Objectives:

To understand how different minerals/rocks fracture and/or cleave at different planes, etc.

To recognize the different physical qualities of different rocks, which would make them, better tool material.

To showcase the progression of the tools made by the Blackfeet Tribe of this area.

To understand the process in which this tools were made, students will make the different levels of tools themselves.

To showcase the culture and history of our local Native people.

To foster a positive appreciation of our local Native peoples' culture.

Procedure:

Day 1: Class lecture and notes over "Identifying Minerals & Rocks" by;

- 1) Hardness
- 2) Color Streak
- 3) Crystal pattern
- 4) Cleavage planes
- 5) Unusual Properties

Day 2: Lab over "Cleavage Planes" of local rocks/minerals

i.e. sandstone, granite, limestone, Montana Agate, & Obsidian
(need rock hammers and safety goggles)

Day 3: Field Trip - study Blackfeet tools (activity – tool scavenger hunt)

Day 4: Lab over tool making with bone. The students would make needles, projectile points, scrapers, etc. Use granite as a stone that shapes the bone. (Buffalo leg bones, etc.)

Day 5: Continue with Lab on "Bone Tools"

Day 6: Guest Speaker (1/2 day lab)

- Lecture over history of tools in the Blackfeet Culture
- Knapping Montana Agate (students will make tools)

Day 7: Summary discussion

Activities:

- Class Lecture (textbook)
- Labs which includes group work
- Field Trip
- Guest Speaker
- Class discussions
- Vocabulary lists and other worksheets, etc.

Assessments:

- Participation in Labs
- Textbook section quiz
- Vocabulary quiz
- Field Trip scavenger hunt
- Functional tools

Supplies:

- Rocks Hammers
- Safety Goggles & heavy gloves
- Large quantities of sandstone, limestone, large gravel, Granite, Obsidian, & Montana Agate
- Large quantities of bone material (deer antlers, Buffalo leg bones, etc)
- Vocabulary worksheets (see related sources)

Materials and Related Sources:

- 1) Flint knapping-Making and Understanding stone Tools
By John C. Whittaker
- 2) American Flintknappers: Stone Age Art in the Age of Computers
By: John C. Whittaker
- 3) The Art of Flint Knapping & Video Flint Knapping
By: D.C. Waldorf
- 4) Making Indian Bows & Arrows, The Old Way
By: Douglas Wallentine
- 5) Montana Ancient Teachings: A Curriculum for Montana Archaeology and Prehistory
By: The Montana Ancient Teachings Education Project
- 6) Jack Smith – Valier, MT
- 7) Scott Foresman Science Textbook