

Unit: Rocks and Man

Audience: 8th grade Earth Science

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Project Description:

Rocks and Man - The impact of rock characteristics and local availability on man rock applications.

Objectives/Goals:

Accurate analysis of rock samples for identifying characteristics.

Compare and contrast rock characteristics necessitated by application.

Synthesize a model application and evaluation standard for an unknown aggregate sample.

Implementation:

- Lessons: Rock Formation and Structure Function - After direct instruction of 3 basic rock type formation / cycles and related characteristics (form/function approach), students will identify applications of rock types within the school infrastructure.
- Lessons: Rocks in Our School- Categorize rock types and kinds by application based on characteristics required for successful application as noted through out infrastructure.
- Inquiry Project: Best Job for the Right Rock- When supplied with an aggregate sample, students will:
 - identify the sample,
 - determine best application based on characteristics
 - design an inquiry to test application
 - set a criterion for a 'successful' test (meets applications needs)
 - evaluate aggregate appropriateness for specified application

Evaluation:

Student Evaluation

Student written documentation of inquiry conclusion with evidence supporting decisions and student evaluation of suggested application model appropriateness.

Project Evaluation

- Students successfully communicate their reasoning for identifying a specific use for an aggregate and develop a evidence based criterion for evaluating their decisions.
- Students recognize and adjust for technical and inquiry process problems and / or discrepancies.