

## Project Development for Geology of Iowa

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DCHS Science

- A) Description: My project will be to develop student understanding of the rock cycle by collecting a rock created by sedimentary, metamorphic, and igneous methods.
- B) Objectives: Students will use hands on learning and their understanding of how these rocks are formed to identify the different formation types both in the field and further study in the lab. Students will compile information about their rocks such as mineral composition, crystal formation and general distribution according to their observation.
- C) Implementation: Students will be introduced to the rock cycle and natural processes such as weathering, deposition, sedimentation, metamorphosis, and extrusion. The students will also see many examples of each type of rock formations (Sedimentary, metamorphic and igneous) so they can observe the differences between them and conclude their own list of how these rocks differ with reference to how they were formed. After they develop their knowledge of rock types according to formation, then we will go on the "Rock Walk" and students will collect what they believe to be rocks from the different formation types. The class will "Think/Pair/Share" in small discussion groups working together to concrete their identification on their rocks. Final assignment will be to present their rocks on a poster board representing the rock cycle with a brief explanation of how the cycle works and more importantly how they classified their rocks into the positions of the cycle by how they were formed.
- D) Evaluation: The student rock cycles will be graded and will focus on their understanding of the rock cycle as well as their understanding of the formation types in their display. The students must have a complete description of their rocks and explanation of why they placed the rocks at each point in the cycle. The students must also attempt to determine if this rock was formed in Iowa or was transported here. This will lead us into further discussion of glacial till and lead to the next unit of study ... LIMESTONE ...

### WHAT'S NEXT

LIMESTONE – Due to its importance both geologically and economically we will look at limestone as both a geological window into the past and also a natural resource for our future.