

Geology of Iowa Teachers

Summer 2009

Steven Petersen/Jesup

5th Grade

The project will include making a collection of sedimentary rocks. Some of the rocks will contain fossils and some will not. After an introduction on how sedimentary rocks are formed this collection will be mixed with igneous and metamorphic rocks. Later we will do igneous and metamorphic rocks.

Objective is to introduce how rocks are classified and differentiate sedimentary rocks from other forms. This will also introduce thinking as to why fossils are found in sedimentary rocks. Students will acquire an understanding of processes or rock formation. The study of fossils gives the students another perspective of geological time, allowing them to examine actual evidence which existed on earth a long time ago. Students will practice classifying rocks in the sedimentary category. Students will understand that most sedimentary rocks are formed under the water in oceans, seas, lakes, and swamps.

The students will then be broken up into small groups. Each group will discuss how to separate out the sedimentary rocks. Then they will separate out the sedimentary rocks.

Evaluation will be based on writing an explanation of why and how they decided to separate the rocks as they did. The evaluation will be scored on a 3-2-1 point basis. 3 being a good understanding with 80% of sedimentary rocks separated correctly. 2 being some conceptual misunderstanding but 60 % correct. 1 being little understanding and at least 40% correct.

Note: explain to students that sedimentary rock form layer that become buried under more layers over time with the layers above younger than the layers below. This is called the Principle of Superposition that helps geologists deduce the relative ages of layers of rock. Explain that sedimentary rocks form layers that become buried under more layers over time. Explain that sedimentary rocks are horizontal when they were formed and this is the Principle of horizontality.