

Glacial Rocks Lab

4th grade Foss: Soils, Rocks and Landforms

State Standard: 4.3.1.3.1

Cost: \$40/class – 1 hour

Class Format: An inquiry-based laboratory where students will be identifying glacial rocks using the Glacial Rocks Kit (©LSWade) and Glacial Rocks Poster (©LSWade). Half the class will be working with the rock kits and 1/2 of the class will working with the rock pile (200 lbs of glacial rocks). Half way through the class, the groups will switch.

Prep for the class: Understanding the difference between Sedimentary, Igneous, and Metamorphic Rocks – Go to the glacial rocks posting at www.oldnaturalist.com/glacial-rocks/



Glacial rocks kit ©

Glacial Rocks of Minnesota				
Name _____				
Number of Rock	Texture	Igneous	Metamorphic/Sedimentary	Notes
Name of Rock	(rough, smooth, waxy)	Description		

Student handout



Glacial Rocks Poster ©



Student Rock Pile

Sand Laboratory

4th grade

Foss: Soils, Rocks and Landforms

State Standard: 4.3.1.3.1

Cost: \$40/class – 1 hour

Class Format: This is an inquiry based laboratory using microscopes. Students will study how sand is formed by observing 30 different samples from around the world. In addition, students will determine whether sand is metamorphic, igneous or sedimentary. Lastly, much of the sand is very beautiful and students will be sketching what they observe.



Microscope and Sand Sample



Map showing the locations of Sand Samples



Rare Green Volcanic Sand
30x



Sand from Black Sea
30x

Minnesota Mammals Lab

Grade 5

FOSS Module Environments

State Standard: 5.4.1.1.1

Cost: \$40/class – 1 hour

Class Format : Students will be studying the adaptations of 13 different mammals. Students will be working at their own rate in groups and answering questions about each animal. In addition, they will take a total length measurements to determine the age class of the animal.

Prep for Class: Midwestern Mammals digital slide show and download student response sheet:

www.oldnaturalist.com/minnesota-mammals/

