



**KENOSHA UNIFIED SCHOOL DISTRICT NO. 1
CURRICULUM AND INSTRUCTIONAL SERVICES**

**COURSE SYLLABUS FOR GEOLOGY-HONORS
(451021 & 451022)**

Number of Credits: 1 **Locations:** Bradford, Hillcrest, Tremper

Prerequisites: Successful completion of Biology.

Course Description

Using rocks, minerals, and maps as a foundation, students will learn about the history of the earth and its implications for the future. The class will focus primarily on the geology of the United States and the Geologic events that have shaped our continent. Throughout the course sequence, various careers in geology will be investigated, and a background for field applications will be provided

Course Standards

Standard A: Science Connections

Standard B: Nature of Science

Standard C: Science Inquiry

Standard E: Earth Science

Standard G: Science Applications

Standard H: Science in Social and Personal Perspectives

Explanations of standards and most essential benchmarks can be viewed at www.kusd.edu

Lifelong Learning Standards

- Knowledgeable person
- Effective communicator
- Quality producer
- Complex thinker
- Self-directed learner
- Contributing citizen

Lifelong learning benchmarks may be viewed at: www.kusd.edu.

Course Outline

1. Introduction to Geology
 - a. Plate Tectonics Overview
 - b. Earth Structure
 - c. Surface Processes
2. Minerals
 - a. Chemistry Overview
 - b. Mineral Structure
 - c. Mineral Properties/Identification
3. Rocks
 - a. Rock Cycle
 - b. Intrusive Igneous Rocks
 - c. Extrusive Rocks & Volcanoes

- d. Weathering, Sediments & Sedimentary Rocks
- e. Metamorphic Rocks
- 4. Geologic Time
 - a. Relative Time
 - b. Absolute Time
 - c. Fossils
 - d. Stratigraphic Columns
- 5. Geologic Structures
 - a. Tectonic Forces at Work
 - b. Folds
 - c. Faults/Joints
- 6. Maps
 - a. Map Projections
 - b. Coordinate Systems/Public Land Survey
 - c. What Belongs Map
 - d. Slope
 - e. Types of Relief Maps
 - f. Reading Topographic Maps
 - g. Profiles
 - h. Geologic Maps & Cross-sections
- 7. Earthquakes
 - a. Causes
 - b. Types of Seismic Waves
 - c. Locating and Measuring Earthquakes
 - d. Effects of Earthquakes
 - e. World Distribution & Plate Tectonics
 - f. Earthquake Prediction and Risk
- 8. Plate Tectonics
 - a. Continental Drift
 - b. Paleomagnetism
 - c. Seafloor Spreading
 - d. Plates and Plate Motion
 - e. Divergent Boundaries
 - f. Transform Boundaries
 - g. Convergent Boundaries
 - h. The Motion of Plate Boundaries
 - i. Plate Size
 - j. Causes of Plate Motion
- 9. Project Based Applications

Board-Approved Instructional Materials

Plummer, Charles C. et al (2007). *Physical Geology, (12th Ed)*. Glencoe/McGraw-Hill.

Methods of Assessment

Final exams should be cumulative in nature, emphasizing the most essential benchmarks for the course. Results of the final exam represent 20 percent of the final grade, but this single measure *may not* drop a student's grade by more than one letter grade. In courses that rely heavily on a major project, performance exhibition, etc., the project should be divided into stages or components and each of those should be graded separately, providing students with frequent and specific feedback.

Board-Approved Grading Scale

Excerpts taken from School Board Rule 6452

GRADING SCALE

A+=98-100 percent	B+=86-89 percent	C+=76-79 percent	D+=66-69 percent
A=93-97 percent	B=83-85 percent	C=73-75 percent	D=63-65 percent
A-=90-92 percent	B-=80-82 percent	C-=70-72 percent	D-=60-62 percent
			F=0-59 percent

MAKE-UP WORK

Students submitting work up to ten school days late without prior approval may receive up to two grades lower on the work than they would have received if the work had been submitted on time (i.e., B+ lowered to a D+). Student work submitted after ten school days without prior approval shall not be accepted for credit and shall be recorded with a score of zero.

Upon returning to school after an absence, a student has the responsibility within the number of days equal to the length of the absence or suspension to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. A truant student has the responsibility on the first day he or she returns to the course/class to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. Lower grades may not be given for late work due to excused absences, suspension, or truancy unless the work is submitted later than agreed upon deadlines.

See Rule 6452 in its entirety at: www.kusd.edu.