



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

**COURSE SYLLABUS FOR MATTER AND ENERGY
(432911 & 432912)**

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

Prerequisites: Successful completion of Biology and Algebra 1

Course Description

This course will examine the relationships between energy and matter through investigation, experimentation, and application. Topics will include structure and properties of matter, force and motion, energy transformation, and the scientific process.

Note: This course is not open to students who have successfully completed Chemistry, Chemistry-Honors, Physics or Honors Physics

Course Standards

Standard A: Science Connections

Standard B: Nature of Science

Standard C: Science Inquiry

Standard D: Physical 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

- I. History and Nature of Science
- II. Forces and Motion
 - a. Distance speed and acceleration
 - b. Forces and Newton's Laws
- III. Light and Sound Waves
 - a. Light energy and color
 - b. Energy in Sound Waves
- IV. Work and Energy
 - a. Work and Machines
 - b. Energy and Power
 - c. Energy Transformations

- d. Non-renewable and Renewable Energy
- V. Electricity and Magnetism
 - a. Circuits
 - b. Resistance
 - c. Electromagnets
- VI. Heat and Heat Transfer
 - a. Heat
 - b. Heat Transfer / Insulation
- VII. Classifying and Measuring Matter
 - a. Physical Properties
 - b. Chemical Properties
- VIII. Changes in Matter
 - a. Atoms and Elements and compounds
 - b. Types of chemical reactions
 - c. Conservation of Mass
 - d. Balancing Equations
- IX. Water and Solutions
 - a. Mixtures and Solutions
 - b. Pure Substances

Board-Approved Instructional Materials

Hsu, Dr. Tom (2005). *Foundations of Physical Science, (2nd Ed)*. Cambridge Physics Outlet.

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.