

Physical Science Course Syllabus

Instructor: Mr. Zuber

Location: Room D3

Contact Information

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Phone: (419) 258-5421 ext. 2123

Best times to get help:

- Before and after school
- During class – Ask questions!
- 7th Period – Mr. Zuber’s planning period
- 8th Period – Academic Assist

Textbook

Physical Science with Earth and Space Science Copyright © 2008

Course Description

Physical Science is a high school-level course that satisfies the Ohio Core science graduation requirements (Ohio Revised Code Section 3313.603). It includes an inquiry-based lab component, encouraging students to ask questions and analyze data.

This course introduces key concepts in chemistry, physics, and Earth/space science. Students will build a foundational understanding of matter, energy, motion, and the universe — concepts essential for future science courses.

Course Content (not necessarily in order presented)

Study of Matter

- Classification (heterogeneous vs. homogeneous)
- Properties and states of matter
- Atoms, ions, and isotopes
- Models of the atom
- Periodic trends and representative groups
- Bonding (ionic and covalent), nomenclature
- Chemical and nuclear reactions

Energy and Waves

- Conservation, transformation, and transfer of energy
- Kinetic and gravitational potential energy
- Waves: refraction, reflection, diffraction, absorption, superposition
- Radiant energy and EM spectrum
- Doppler shift, thermal energy
- Electricity: current, voltage, resistors, and energy transfer

Forces and Motion

- Motion, displacement, velocity, acceleration
- Interpreting motion graphs
- Types of forces and force diagrams
- Dynamics and field models
- Objects at rest, constant velocity, and acceleration

The Universe

- History and formation of the universe
- Galaxy and star formation
- Fusion and stellar evolution

Grading

Quarter grades are calculated using a weighted average of three categories:

Category	Weight
Tests & Quizzes	40%
Labs & Activities	40%
Homework	20%

Each quarter grade is worth 50% of its respective semester.

Assessments

Tests and Quizzes

Include problem-solving and conceptual questions based on classwork, textbook examples, in class examples, and chapter problems. Pop quizzes may occur.

Laboratory and Activities

Students will use equipment to collect data, form conclusions, and communicate results. Pre-lab assignments and proper attire (see safety contract) are required. A safety contract must be signed.

Homework

Assignments include reading, vocabulary, note taking, worksheets, and textbook questions

Extra Credit

Mr. Zuber occasionally offers extra credit. This extra credit is offered to all students. Extra credit is not offered at the end of a grading period to boost grades. Students need to concern themselves with their grades at all times.

Student Responsibilities

Keys to Success

- Use class time wisely
- Be an active participant. Ask questions - get help early
- Mistakes will be made. Learn from them.
- Turn in neat work
- Study and practice nightly
- Complete and submit assignments on time

Behavior

Respect staff, classmates, and yourself. Be accountable. Follow rules.

Habitual violations will result in office referrals.

Passes

Issued at the teacher's discretion. Sign in/out required. One student at a time for the restroom.

Food & Drink

Only water in a clear container is allowed at your desk. No food or drink at lab stations.

Missing / Make-Up / Late Work

Make arrangements for someone to pick up missed work for you. At times, I may be able to electronically send them to you. You have the number of days missed to get an assignment made up. Check in with Mr. Zuber before leaving or after returning if you miss class. **LATE WORK DUE TO ANYTHING OTHER THAN AN EXCUSED ABSENCE IS NOT ACCEPTED.** Habitual incomplete assignments will result in consequences: lunch detentions, after school detentions, and/or Friday schools

Electronic Devices

Phones must be off and in your locker. Smartwatches should also be stored with phone if it will distract you - these cannot be worn during quizzes and tests. Computers should only be used for academic purposes.

Supplies (Bring Daily)

- Textbook (must be covered; if damaged beyond typical wear and tear, student/family is responsible for replacement)
- Notebook or binder for notes
- Folder (if not using a binder) - do not store papers in your textbook
- Pencils (sharpen 2 at the start of class)
- Calculator (TI-30XIIS preferred; approx. \$10–\$15)