

EL Physical Science

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TEACHER SCHEDULE

Block	Regular	A	B	Extended Advisory
1	8:25-9:55	EL Biology II	Teacher Meetings	8:25-9:45
ADV	10:00-10:20	HS 101		9:50-10:50
2.3	10:25-11:55	Algebra I		10:55-12:15
3	12:30-2:00	PLC	EL Physical Science	12:50-2:10
4	2:05-3:35	PREP	EL Physical Science	2:15-3:35

213J

Location
Varies

COURSE DESCRIPTION

Physical Science is the initial science course for high school (no prerequisites) which primarily focuses on the study of matter and energy and their interactions (non-living systems). These are divided into two major areas of study: Physics (semester 1) and Chemistry (semester 2). The table on the following page contains an overview of what you can expect to learn from each of these areas of science. All content is guided and assessed using the NGSS (Next Generation Science Standards).

Our very first unit is the scientific method: a central concept in science (and our future learning). To fully grasp physics and chemistry, it's important to first understand how scientists have made and validated the discoveries you'll explore this year. This knowledge will empower you to make your own predictions, analyze data, and experience science in action. The following table contains an overview of the units in each semester and their main ideas.

Unit	Semester 1 Units	Main Ideas
1	Scientific Method	Identify parts and order of the scientific method to make predictions, design your own controlled experiments, analyze data, and form conclusions
2	Matter in Motion	Calculate and explain changes in speed, distance, and time to explain and interpret motion graphs
3	Forces and Motion	Apply Newton's three laws of motion to mathematical scenarios of motion to solve for unknown variables
4	Energy	Identify common types of energy and how it transforms into different types of energy
	Semester 2 Units	
1	Properties of Matter	Identify common physical properties and changes as well as chemical properties and changes
2	Classifying Matter	Conduct research to classify elements, compounds, molecules, and mixtures based on properties and use these properties to separate a mixture into 4 individual components
3	Introduction to Atoms	Understand and identify the subatomic particles within an atom and how each plays a role in an isotope's stability and classification
4	Periodic Table	Explain the trends of the periodic tables within groups and periods such as reactivity, valence electrons, properties, and predict properties and locations of new elements
5	Chemical Bonds	Compare and contrast ionic, covalent, and metallic bond properties and model how they are created
6	Chemical Reactions	Use understanding of atoms, the periodic table, and chemical bonding to identify and balance different chemical reactions

Semester Grades and Graduation Credit

Physical Science is a yearlong course consisting of two semesters; passing each semester is required for graduation. Receiving an F in either semester of Physical Science will result in you retaking the failed semester the following year. Semester grades will determine if you earn credit for graduation

Weighted Grades and Quarters

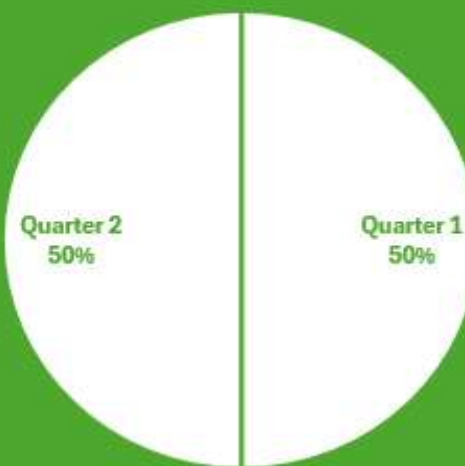
Quarter grades are weighted. 30% of your grade is collected from formative assessments: tools and methods used by educators to evaluate learners' understanding and progress throughout the learning process. They will occur throughout the class in the form of starters, practice, Kahoot!, Quizlet, assignments, etcetera. By utilizing time management, you should bring minimal work outside of class. Formative assessments allow the educator to determine if and when additional practice is needed.

When a learner has provided sufficient evidence that they have mastered the learning target(s) or standard, summative assessments (70%) will be used to obtain a comprehensive understanding of a learner's proficiency over the course of a learning target as well as the entire unit. Summative assessments will be given at the teacher's discretion and only after sufficient evidence of proficiency has been obtained. This allows the educator and learner to obtain the most reliable and valid summative assessment score.

Many different formative and summative assessments will be used in this class and have different weights in the gradebook, see the next table for ways you can expect to demonstrate understanding in this course.

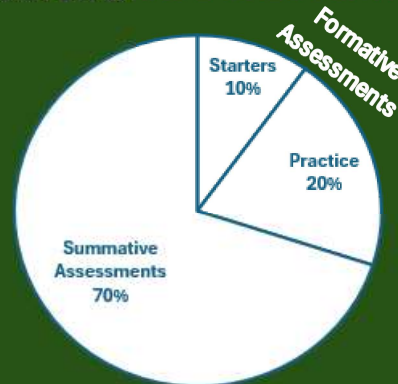
Assignments will be typically be graded within 24 working hours (1 business day) from submission. At a minimum, grades will be updated 1x per week. If you notice errors in your grades, contact your teacher.

SEMESTER GRADE CALCULATION



Letter Grade	Percent Range (%)
A	90-100
B	80-89
C	70-79
D	60-69
F (Loss of Credit)	<60

QUARTER GRADE CALCULATION



Summative	Learning Target Quizzes	Timed (ranging from 10-30 minutes)	Opens in class, password protected	Learning Target(s) consisting of content from multiple lessons	Teacher Only	Allows learners to demonstrate their highest level of skills and knowledge with prompt feedback provided	No retakes
	Unit Assessment	Timed (90 minutes)	Opens in class, password protected	Multiple Learning Targets and or Standards	Teacher Only	Provides a final snapshot of a learner's ability to apply skills and knowledge learned throughout a unit, connecting multiple learning targets together	No retakes
	Lab	Suggested time limit of one block, difficult to make up	Only available after Pre-lab is complete and proficiency of learning targets is reached	Multiple Learning Targets and or Standards	Notes, Internet, collaborating with learners, teacher	Provides opportunity for collaboration, hands on learning, and application of knowledge developing high level thinking	No retakes
	Projects/Modeling	No time limit	Open following learner proficiency of critical learning target(s)	One or more learning target, one standard, or one unit	Notes, Internet, collaborating with learners, teacher	Learners demonstrate English Language Proficiency of scientific words and understanding through hands on learning	No retakes
Total Weight= 70%							