



## **Physical Science 1 Syllabus**

Welcome to 9<sup>th</sup> grade physical science. This year you will be learning about the foundations of physical science including: the nature of scientific inquiry, chemistry, physics, and earth science. Students will be assessed in alignment with the course standards below. Also included in this syllabus are my policies concerning classroom conduct, homework, and testing. I expect all students to be an active part of the learning community that exists in my classroom and to take responsibility for their own success.

### **Course Systems Standards (Science EALR 1):**

#### *Chemistry and Physics*

- 1.1.1: Understand the atomic nature of matter, how it relates to physical and chemical properties and serves as the basis for the structure and use of the periodic table.
- 1.2.3: Understand the structure of atoms, how atoms bond to form molecules, and that molecules form solutions.
- 1.3.3: Analyze the factors that affect physical, chemical, and nuclear changes and understand that matter and energy are conserved.
- 1.3.1: Analyze the forces acting on objects.
- 1.3.2: Analyze the effects of balanced and unbalanced forces on the motion of an object.
- 1.1.2: Apply an understanding of direction, speed, and acceleration when describing the linear motion of objects.
- 1.1.4: Analyze the forms of energy in a system, or parts of a system
- 1.2.1: Analyze how long systems function, including the inputs, outputs, transfers, transformations, and feedback of a system and its' subsystems.
- 1.2.2: Analyze energy transfers and transformations within a system, including energy conservation.

### **Course Inquiry Standards (Science EALR 2)**

- 2.1.1 Understand how to generate and evaluate questions that can be answered through scientific investigations.
- 2.1.2 Understand how to plan and conduct systematic and complex investigations.
- 2.1.3 Synthesize a revised scientific explanation using evidence, data, and inferential logic.
- 2.1.4 Analyze how physical, conceptual, and mathematical models represent and are used to investigate objects, systems, and processes.
- 2.1.5 Apply understanding of how to report complex investigations and explanations of objects, events, systems, and processes and how to evaluate scientific reports.
- 2.2.1 Analyze why curiosity, honesty, cooperation, openness, and skepticism are important to scientific explanations and investigations.
- 2.2.2 Analyze scientific theories for logic, consistency, historical and current evidence, limitations, and capacity to be investigated and modified.
- 2.2.3 Evaluate inconsistent or unexpected results from scientific investigations using scientific explanations.
- 2.2.4 Analyze scientific investigations for validity of method and reliability of results.
- 2.2.5 Understand how scientific knowledge evolves.

### **Course Design Standards (Science EALR 3)**

- 3.1.1 Analyze local, regional, national, or global problems or challenges in which scientific design can be or has been used to design a solution.
- 3.1.2 Evaluate the scientific design process used to develop and implement solutions to problems or challenges.
- 3.1.3 Evaluate consequences, constraints, and applications of solutions to a problem or challenge.
- 3.2.1 Analyze how scientific knowledge and technological advances discovered and developed by individuals and communities in all cultures of the world contribute to changes in societies.
- 3.2.2 Analyze how the scientific enterprise and technological advances influence and are influenced by human activity.
- 3.2.3 Analyze the scientific, mathematical, and technological knowledge, training, and experience needed for occupational/career areas of interest.

### **Course Reading Standards (Reading EALRs 1 and 2)**

- 1.3.2: Understand and apply content/academic vocabulary critical to the meaning of the text, including vocabularies relevant to different contexts, cultures, and communities.
- 2.1.5: Apply comprehension-monitoring strategies for informational and technical materials, complex narratives, and expositions; synthesize ideas from selections to make predictions and inferences.

- 2.4.3: Analyze and evaluate text for validity and accuracy.  
Course Math Standard (Math EALR 1):  
1.2.3: Understand how to convert units of measure within a system.  
1.5.6: Apply procedures to solve equations and systems of equations.

### *Student Achievement*

Your grade will be based on a progression of the course science, reading, and math standards. Students' grades can be checked online at <http://grades.fwps.org>. There will be no class time given to checking grades.

#### *Grading Scale:*

A - 90-100%

B - 80-89%

C - 70-79%

Grade of C - average (Minimum grade needed to pass class)

F 69.9% or below

HIGH SCHOOL GRADUATION REQUIREMENT (SCHOOL BOARD POLICY 2310)  
In order to obtain a credit toward graduation in this course, a student must:

- Earn at least a "C-" grade; and
- Pass a *Federal Way School District* end-of-course assessment (DCA)

### *Classroom Expectations*

My classroom is a learning community where every student is encouraged to share their ideas. Students will be expected to interact with their fellow classmates and take responsibility for the community's well being. Below are a few guidelines that stand in my classroom to ensure a safe, inclusive, learning environment:

- ⇒ Students will respect all members of the TJHS community and their personal property.
- ⇒ Students will come to class on time **prepared** and ready to learn.
- ⇒ No portable electronics (cell phones, iPods, video games, etc.) are allowed in the classroom; they will be confiscated if they are out!
- ⇒ **Students will adhere to the code of conduct as stated in the student handbook.**

### *Daily Points for Classroom Community Communications Standards. (4 points daily)*

Science is not conducted in a societal or cultural vacuum, and all scientists need communication skills to achieve any level of competence. Communication in the classroom takes the form of the daily student-teacher and student-student interactions. The ability to communicate content in the classroom depends on following the classroom norms, and that all are engaging in the day's learning activities. These skills will be assessed by the rubric below, and address the following Washington State Standards (EALR's/GLE's):

#### *Communications:*

- 1.1.1. Applies a variety of listening strategies to accommodate the listening situation.
- 2.2.1. Uses communication skills that demonstrate respect.
- 2.2.2. Applies skills and strategies to contribute responsibly in a group setting.
- 2.3.2. Creates personal intercultural communication norms to guide ones self in a diverse social system.
- 4.1.1. Analyzes and evaluates strengths and weaknesses of one's own communication using own or established criteria.
- 4.2.1. Applies strategies for setting grade level appropriate goals and evaluates improvement in communication.

\*\*One way to forfeit points for the day is if I see an individual's cell phone or mp3 player (whether using it or not) in the classroom. This behavior fails to meet standards 2.2.1 and 2.2.2.

<b>Beginning</b>	<b>Approaching</b>	<b>Meeting</b>	<b>Exceeding</b>
Always needs to be asked to get started working and many reminders to stay on task.	Is usually ready to start, but occasionally needs a reminder to stay on task.	Immediately gives attention to teacher and gets right to work.	Is always prepared to work at beginning of class and encourages others to do so.
Wastes a lot of class time and may disrupt others.	Wastes "some" class time; works carelessly.	Uses class time effectively; works steadily, is focused.	Makes the most of class time and works efficiently.
Needs a lot of monitoring. Little if any regard for classroom/school rules.	Needs reminders to act appropriately.	Monitors own behavior, acts appropriately. Follows school/classroom rules	Sets a positive tone in class; helps others.
Puts little effort into doing quality work or completing work in class time.	Seldom does quality work; makes little effort to improve.	Most work is of good quality; makes effort to improve.	Often does exemplary work and tries to improve.
Fails to make up missed assignments.	Fails to make up missed assignments in a timely manner.	Makes up missed assignments in a timely manner.	Makes up missed assignments promptly and completely.

***Warm-up:***

Every day class will begin with a warm-up activity. The proper way to begin class is to immediately open your comp book and begin your warm-up. You are to put the current date on each warm-up. They will be collected and graded at my discretion.

***Materials:***

For this class you will be required to have the following materials **EVERY DAY:**

- |                         |                       |                    |
|-------------------------|-----------------------|--------------------|
| Composition Notebook    | Notebook Paper        | Pen(s) & Pencil(s) |
| One 3 ring binder       | Scientific calculator | Highlighter        |
| Compass/protractor      | Glue                  | Scissors           |
| Colored pencils/markers | Ruler                 | Memory             |

***Portfolio:***

You will have a portfolio, which displays your progress toward meeting course standards and captures your progress toward meeting the course standards.

***Tests & Quizzes:***

Tests & quizzes will usually be given every two to three weeks and will cover both lab and lecture material. Both announced and pop quizzes will occur throughout a unit.

***Homework Assignments:***

Assigned regularly and due the following day (unless otherwise stated) at the start of class. Completed homework is critical in passing the class.

***Labs:***

- Students must always adhere to the safety requirements of any particular lab.
- Part of proper lab procedure includes cleaning the lab station upon completion of the assignment; the lab must be completely cleaned before you may leave.
- Be careful with all lab equipment – students will be fined for damaged or broken equipment.
- If you are absent on the day of a lab an alternative assignment will be given to make up the points.

***Late Work:***

*Late work:* Will not be accepted without an **excused** absence or prior arrangements.

***Make-up work:***

In the event of an absence make-up assignments will be as follows:

***Classwork:*** It is the student's responsibility to get the assignment from the assignment calendar and check with their peers to obtain any notes taken during the absence. The student then has as many days as were missed to make up the work. Class time will not be used to dialogue about missed assignments.

***Tests:*** The student has as many days as were missed to make up the test.

***Labs:*** It is the student's responsibility to get the raw data from a lab partner; the student then has as many days as were missed to make up the work.

***Homework folder:*** It is the student's responsibility to obtain and retrieve graded assignments from the homework folder and place them into their portfolio. Student and parents may view their grades on the TJ web site at <http://grades.fwps.org>

**Proper Paper Heading**

Title

Assignment Name

First, Last Name

Date

Period

I have read, understand and agree to the contents of this contract. Mr. Coronado will keep your signature on file and you will keep the contract in the front of your notebook.

**PHYSICAL SCIENCE SYLLABUS CONTRACT**

Student Name \_\_\_\_\_

Print

Signature

Parent/Guardian Name \_\_\_\_\_

Print

Signature

\_\_\_\_\_  
Date

