**Course Syllabus**

**PHYSICAL SCIENCE – FALL 2024**

**Instructor: Coach Kyle Evans**

**Dear Parent/Guardian,**

**I feel fortunate to have your child in my class this semester. Physical Science is an intriguing course, intended to introduce your child to concepts of both Chemistry and Physics. It is an engaging, hands-on course that will challenge your students to learn using modeling, computation, and lab instrumentation. By the end of the course, I know your child will have a greater sense of understanding of the topic and confidence they can succeed in further sciences in high school and beyond. With your child, please read the policies in this document, then fill out and sign the first page of the syllabus. YOUR CHILD WILL THEN TAKE A PICTURE AND UPLOAD A COPY OF THIS PAGE SIGNED AS AN ASSIGNMENT ON SCHOOLOGY BY FRIDAY, AUGUST 9, 2024. I hope that you will contact me should you have any concerns about the progress of your son/daughter or any aspect of the instruction. I look forward to having a great year!**

**Thank you,**

**M. Kyle Evans**

**My child and I have read and discussed the classroom syllabus.**

Student Name (Print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Name (Print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Email Address(es) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone number(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cell Home Work

**Note**: Is there any additional information about your student that might be helpful to know as I strive to serve them well as a teacher this semester? Feel free to share below or send me an email. (I really will read what you say and try to apply it as best I can.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Course Syllabus**

**PHYSICAL SCIENCE – FALL 2024**

**Instructor: Coach Kyle Evans**

**Course Description:**

This course introduces the fundamental concepts of general chemistry and physics. Focus areas include: scientific measurement and analysis, atomic structure, properties of the periodic table, balancing equations, chemical bonding, gas laws, acids and bases, motion, Newton’s Laws, energy, and waves. While focusing on these areas, students will also learn basic laboratory skills and how to perform experiments to confirm course concepts. This course does require basic mathematic skills. This course is recommended for students going through Algebra 1A and 1B, to help better prepare them for Chemistry and Physics. This course is intended to prepare students for continued studies in science as they meet the physical science graduation requirement.

18 weeks/1 credit

**Course Objectives:**

**Students will:**

* Use the periodic table as a model to predict properties and trends of main group elements based on patterns of valence electrons.
* Identify the relationship that exist among pressure, volume, density, and temperature of a confined gas.
* Determine the role of electrons in chemical bonding and interpret chemical equations.
* Analyze data using acid-base indicators to distinguish between acids and bases, including comparisons between strong and weak acids and bases
* Develop models to illustrate the concept of half-life for radioactive decay.
* Analyze and interpret basic motion graphs including displacement, velocity, and acceleration.
* Discuss the motion of a system by applying Newton’s Laws.
* Design models to demonstrate simple circuits.
* Discuss conservation of momentum using mathematical equations and diagrams.
* Discuss the conservation of energy and identify energy transformations.

**Classroom Rules and Expectations:**

**General Expectations:**

1. BE ON TIME. Tardy means that you are not in the room and getting seated when the bell rings. *JCHS policy governs the consequences for tardiness*.

2. BE RESPECTFUL: Practice courtesy and mutual respect. Treat others as you would like to be treated. The classroom and laboratory is to be regarded as a safe and supportive learning environment.

3. BE PREPARED: Mentally focused on reaching your goals and following class expectations; and physically bringing proper materials EVERY DAY.

4. BE RESOURCEFUL: Thoroughly review assignments, videos, textbooks, and notes to answer questions before asking me.

**Accommodations:** Requests for accommodations for this course or any school event are welcomed from students and parents.

**Classroom Management Plan**

* Verbal reprimand
* Conference with student with parent contact
* Withdrawal of privilege(s) with parent contact
* Other consequences determined to be reasonable and appropriate by the school administration.

**Cell Phones**

Cell phones and earbuds/headphones will not be allowed to be used during classroom instruction time. Phones and earbuds/headphones will be put away in a location designated by the teacher and placed in silent mode. In secondary schools, students will have access to their phones and earbuds/headphones outside of classroom instruction time such as between classes and lunch. Failure to follow these procedures will result in a disciplinary referral to the office.

**Concerning Laptop Utilization:** Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

**A.I. Statement:** The use of artificial intelligence (A.I.) tools to complete assignments without prior disclosure and approval is strictly prohibited. Any undisclosed use of A.I. tools will be considered academic dishonesty and will result in an automatic grade of zero for the assignment in question. All assignments are subject to verbal review.

**Grading Policy:**

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

**Missed Assignments:** If you are present in class but do not turn in an assignment by the due date, I will put a 0 in the gradebook. You are allowed to turn in assignments late; however, 30% of the grade will be deducted for being late. **Excused** absences will be granted 3 days to complete and turn in any missed assignments. After 3 days, the assignment will be counted as late unless extenuating circumstances are discussed with me. Assignments missed due to an **unexcused** absence will be given a 0 in accordance to Madison City Schools policy. Please make sure to turn in an excuse for every absence within 3 days!

**Make-Up Work Policy:**

Make-up tests are only allowed for excused absences. Make-up test time is once per week on a day determined by the instructor. Please, plan with Coach Evans to make up a test. Make-up work for daily assignments can be located on Schoology.

**Course Materials:**

* 100-page spiral notebook OR 1” binder with at least 100 sheets of loose leaf paper
* Black or blue ink pens/Pencils
* Basic or scientific calculator (any calculator with a square root function)
* School-issued chromebook. Several assignments require the use of Schoology and EdPuzzle which are accessed in class using a device.

**Texts/Required Readings:**

* *Foundations of Physical Science, 3rd edition.* Tom Hsu, CPO Science, 2013.

**Course Syllabus**

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| **18 - WEEK PLAN\*** | |
| **WEEK 1** | **Lab Safety/Scientific Method/Measurement** |
| **WEEK 2** | **Scientific Method/Measurement/States of Matter** |
| **WEEK 3** | **States of Matter/ Trends and Properties of the Periodic Table** |
| **WEEK 4** | **Trends and Properties of the Periodic Table** |
| **WEEK 5** | **Periodic Table and Chemical Bonding** |
| **WEEK 6** | **Chemical Bonding and Nomenclature** |
| **WEEK 7** | **Types of Chemical Reactions and Conservation of Mass** |
| **WEEK 8** | **Acids and Bases** |
| **WEEK 9** | **Radioactivity and Radioactive Decay** |
| **WEEK 10** | **Motion and Forces** |
| **WEEK 11** | **Forces and Newton’s Laws** |
| **WEEK 12** | **Newton’s Laws and Momentum** |
| **WEEK 13** | **Energy and Simple Machines/Work and Power** |
| **WEEK 14** | **Conservation of Energy** |
| **WEEK 15** | **Electricity and Circuits** |
| **WEEK 16** | **Energy and Waves** |
| **WEEK 17** | **Energy and Waves/Electromagnetic Radiation** |
| **WEEK 18** | **Electromagnetic Radiation and Sonar** |

**\* This syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions or substitutions.**