

## **8th Grade Physical Science Learning Contract Units of Study for 8th Grade Science:**

### Unit 1 – Nature of Science Branches of Science

Scientific Inquiry

What is Matter?

Types of Measurements

Metric Units

### Unit 2 – Structure of Matter

Properties of Matter

States of Matter

Mass vs. Weight

Changes in Matter: Physical vs. Chemical

### Unit 3 – Elements/Compounds/Mixtures

What Are Elements?

Symbols

Properties of Compounds

Properties of Mixtures

### Unit 4 – Atoms & their structure

Atomic Structure

Charged Atoms

Bonding Among

Atoms

Periodic Table & Its Trends

### Unit 5 – Chemical Reactions & Writing Formulas

Defining

Chemical Reaction

Binary and Polyatomic Compound

Chemical formula

Writing & Balancing Equations.

### Unit 6 – Forces and Motion

Nature of Forces

Balanced & Unbalanced forces

Force and Motion

Speed, Velocity, & Acceleration

Gravity & Inertia

Mass vs. Weight

### Unit 7 – Work & Machines

Force, Distance, & Mass

What is Work?

Simple Machines

Mechanical Advantage

### Unit 8 – Energy & Heat

Types of Energy

Different Forms of Energy

Heat vs. Temperature

How Does Heat Energy Move?

### Classroom Policies:

1. Be respectful...
  - a. of yourself, classmates, and faculty, volunteers, and school property
2. Be punctual...
  - a. "On time" means you are in your seat with materials on your desk when the period begins.
  - b. You are copying and answering the "Task".
3. Be prepared...
  - a. with all required materials and a mind ready to learn.
4. Display appropriate behavior by...
  - a. using indoor voices
  - b. walking in the classroom
  - c. raising your hand and waiting to be called upon
  - d. being patient with others
  - e. listening carefully and following directions
  - f. waiting to be dismissed by the teacher

### Required Materials:

- A three ring, one-inch binder for SCIENCE ONLY. It must have dividers labeled in the following order:
  - Tasks
  - Notes
  - Class handouts
  - Homework
  - Labs
  - Quizzes and Tests
- Your textbook and **CHARGED iPad** (once distributed)
- Loose leaf (a minimum of 10 blank sheets is required at all times).
- 2 red pens
- A sharpened pencil, eraser, and pen.

**Generally speaking I do not mind what color ink you use for classwork/ homework. Exceptions include red, orange, or pink ink which are too close to colors we use for corrections. Additionally, markers, colored pencils, and crayons are not acceptable writing utensils. You may borrow a pencil/book if needed, however you are to ask three before you ask me. Additionally, if you do borrow a pencil you are to return it, no exceptions. Coming prepared for class eliminates the need for either of these scenarios, however.**

**\* A highlighter**

**\* Completed homework**

- A firm understanding of the previous day's lesson is required to participate in class discussion and to build upon prior knowledge. If there is something you did not

understand, see me during 9th period for extra help! The above items are required every single day- no exceptions. Failure to bring these items will prevent you from participating in that day's activity/ lab.

### **Daily Procedures:**

- Textbook: Your book is required to have a sturdy cover at all times. This can be a book sock, brown paper bag, etc. If a cover is torn, it needs to be replaced. In this class, we use a series of several smaller textbooks. As such, it is important that you listen to directions and use the correct book.

\* Assignments: All assignments are required to be neat and written in complete sentences. Correct spelling, capitalization, and punctuation are also required. Homework is checked daily and will not be accepted as late without an excused absence. **AS PER DISTRICT POLICY, ONCE ANSWERS ARE CHECKED, IT IS NO LONGER ELIGIBLE FOR LATE CREDIT**. Assignment topics can also be found on Schoology.

### **Tests/quizzes:**

- Tests and quizzes are given at the end of each unit. Your binder, class assignments, and textbook are the best tools to help you prepare for the assessments. If you do not receive a passing score (below a 70%), you may retest. You must schedule an appointment for the retest the SAME DAY you receive the original test score. The retest must be taken within 5 class days during 9th period. The average of the initial test score and retest will become the final score entered into the grade book.
- Advanced notice is always given before an assessment and is posted in the updates sections on Schoology. Due to the advanced notice being absent does not exempt you from taking the assessment on the scheduled day. Exceptions to this would be, if you were absent for an extended period of time and were not present for some of the content covered on the assessment. If this is the case, you have exactly the amount of time you were absent to make up work and take the assessment. (I.E. absent for 5 days, 5 days for make-up)

### **Binder/ Homework quizzes:**

\* Organization is key to being successful in this class. Time is given each class period to file away your work in the appropriate location. To help you to learn to use your binder as a study tool, binder quizzes are given often. Those who have their work completed and in the correct section will earn an easy A on the binder quiz. Those left shuffling around

looking for misfiled papers will struggle. Failing to do your homework will make these quizzes very challenging.

### **Labs:**

\* All students must sign the lab safety contract in order to participate in the activity. Any student in violation of the lab safety contract or regulations will be forbidden from participating in future labs, as per school policy. When conducting a lab, it is not enough to state the result of your experiment. You must support your summary with data and provide careful explanation of your findings. Graphing, essay writing, and reflection are required for all labs. Laboratory reports and essay summaries are going to be a challenge initially, but you will get better at it so don't worry! In the event that a lab takes place over several days, you will need to have the first day's work done in order to participate in the second day. Failure to do so will result in an independent assignment so that your lab group can proceed without you.

### **Absences and Lateness:**

\* If you are absent, please check Schoology to see what you missed. Extra copies of all handouts are also located in the file crate on the table next to the door. It is your responsibility to check Schoology and get the papers you need. Students who arrive late to class without a signed pass from a teacher will be sent to time out. If you must be late, take a moment to get a pass. If you are having locker difficulty, come to me first and communicate the problem and I will give you extra time.

### **Movement for Materials:**

\* If you need to sharpen your pencil, get a tissue, throw something away, etc. you do not need to wait for permission. Minor things such as these should be done in a quiet manner that does not disrupt the flow of class. Please wait until direct instruction concludes unless it is an absolute EMERGENCY! Students who have difficulty moving about the room for materials without being disruptive revoke their freedom to do so and will have to wait for permission from the teacher.

### **Bathroom:**

\* You MUST ask to use the lav and have a pass. Again please do not interrupt instruction to do so unless it is an absolute emergency. Sign out on the sheet located in the binder near the door. You are responsible for the work you miss while you are gone.

### **9th Period:**

\* **You have until 2:20 to get where you need to be.** You must sign out on the sign out sheet located in the binder near the door. Students in the hall past 2:20 will be sent to

time out.. You can get these passes during that teacher's class earlier in the day and return it when you visit them.

Please sign and return the bottom portion of this page indicating you have read and understand the content of the learning contract.

Student: \_\_\_\_\_

Date: \_\_\_\_\_

Parent: \_\_\_\_\_

Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Date: \_\_\_8/26/2019\_\_\_