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| Physical Science | 2015-2016 | Ms. Clark |
| Room #5 |  | clarks@wiggins50.k12.co.us |
|  | Class website: | [www.msclarksscience.weebly.com](http://www.msclarksscience.weebly.com) |

Welcome to Physical Science! In this class we will be studying physics as well as chemistry. So basically we will be studying what makes up our world, and how our world works.

*The most exciting phrase to hear in science, the one that heralds the most discoveries, is not "Eureka!" (I found it!) but "That's funny..." ~Isaac Asimov*

This year I hope you make some new discoveries and challenge yourself to explore the world around you in new ways.

**Required Materials**

* **3 ring binder (1” or larger)**
* **Composition Notebook (for labs and notes)**
* **Pencils and pens**

**General Rules and Procedures**

Since we are the Tigers, the school adopts the Tiger **P.R.I.D.E.** We will be following this acronym in my classroom as well.

**P – positive attitude**

**R – respect & responsibility**

**I – integrity**

**D – determination**

**E – excellence**

I would also like to follow **R.O.A.R.** for your daily behavior in the classroom.

**R – respectful** (to the teacher, classmates, materials, and yourself)

**O – organized** (prepared for class with materials, keep up required binder)

**A – accountable** (do your own work)

**R – responsible** (if you are absent, you need to get the work, I can’t hunt you down)

**Attendance**

All students must be in their seat by the start time of class, or they will be counted tardy. If you are late for any reason, you must have a pass. If unexcused tardiness becomes a regular habit, disciplinary action will follow school policy.

**Discipline**

My classroom disciplinary procedures will follow those of the school. For example, if there is a conflict within my classroom, it will be handled according to the school handbook. The only way to resolve issues is to be sure to communicate clearly and effectively. This means that if you have a problem in my class you need to let me know as soon as possible.

**Major Topics of Learning**

The first semester is devoted to introducing the unifying principles of physical science (the structure of matter and the changes it undergoes, conservation of mass and energy, and the concept of forces), as well as beginning to gain an understanding of the basics of chemistry (atomic theory, chemical bonds, chemical reactions, biochem, and solution chemistry). The second semester continues with an emphasis on chemistry. The year is completed with the major concepts of physics (describing motion, forces, momentum, energy, waves, sound, optics, electricity, and magnetism).

* **Topic Outline**
  + First Quarter: Math Review, Scientific Method, Introduction to Matter, Properties of Matter
  + Second Quarter: Energy, Temperature and Heat, Atomic Structure and Bonding
  + Third Quarter: Chemical Reactions, Solutions, Motion, Forces, Work and Energy
  + Fourth Quarter: Waves and Sound, Electromagnetic Waves, Light and Optics, Electricity and Magnetism

**Grading**

Wiggins Middle/High School is a standards-based school. All assessments will be designed with the “end in mind.” This is to show students’ mastery of the standards of that content area. With this concept in mind, learning outcomes will be given at the beginning of each unit so the students will have a better idea of what to expect for the unit. (See the section titled Learning outcomes for more details). Two types of assessments will be used to formulate your grade. Weekly progress grades are posted at <https://www.wiggins50.k12.co.us> at the Infinite Campus Link.

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| Grading Scale | |
| A+ | 98-100 |
| A | 94-97 |
| A- | 90-93 |
| B+ | 87-89 |
| B | 84-86 |
| B- | 80-83 |
| C+ | 77-79 |
| C | 74-76 |
| C- | 70-73 |
| D+ | 67-69 |
| D | 64-66 |
| D- | 60-63 |
| F | 59 or below |

1. **Formative assessments 30% of grade**
   1. Homework
   2. Quizzes
   3. Projects
   4. Worksheets
   5. Laboratory assignments
2. **Summative assessments 70% of grade**
   1. District in-common assessments
   2. Content area in-common assessments

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| Group Project Grading Scale | |
| Individual Grade | 50% |
| Group Grade | 50% |

* 1. Teacher-made summative assessments

**Remember that grades are cumulative throughout 1st and 2nd semester. No extra credit will be given.**

* **Homework**

I view homework as an opportunity for you to practice the material with fewer penalties. Homework is where students are supposed to use the basic knowledge they have accumulated during lectures to advance their understanding of topics. Students are expected to copy their homework assignments into their agenda daily. I will keep a class website where you will be able to find homework assignments as well.

* **Projects**

Group projects will be used occasionally in this class. This could be as simple as a group poster, or as complicated as a group presentation to the class. Rubrics for the projects will be handed out to the students at the beginning of the project so they know what to expect and how to achieve the grade that they desire. On group projects, students will receive a grade for individual work and a group performance grade. Grades are based on demonstrated student progress toward mastery of Colorado model content standards.

* **Quizzes**

Quizzes are a quick opportunity for me to assess how much you have learned. It will be used as a tool for me to see how well you understand what I am teaching and how well I am teaching. Quizzes will be worth fewer points than tests, but will be graded for correctness.

* **Tests**

Tests will be given at the end of each unit.

* **Final**

There will be a final in this class. More details will be given as this test approaches.

* + **Semester Tests**

There will be semester tests in this class. There might be some questions from units covered throughout the semester.

* **Labs**

Labs in this class will be taken very seriously. You will have an opportunity to work with advanced (and expensive) laboratory equipment. Most high schools and even some colleges do not have access to this kind of technology. It is vital that you pass your laboratory safety unit test before you are allowed to use the equipment.

If you display inappropriate behavior that places yourselves or those around you in physical danger, or if your behavior creates a situation in which lab equipment could be damaged or broken during the lab, you will be given two choices:

1. Accept a zero for the lab and be removed from the classroom until the lab is finished.
2. Accept a written assignment in place of the lab while you are out of the classroom and the remainder of the class completes the lab. The writing assignment will:
   1. Be on the same/similar topic as the lab
   2. Have subheadings as outlined by the teacher
   3. Be of a length that reflects the complexity and time spent by the class on the same lab.

If the same behavior is repeated at a later date, the same options may be made available or the determination could be made that the student is a consistent threat to those around them and needs to be removed from lab situations for the year. Upon each behavioral confrontation, you will need to retake the lab safety test in order to prove to me that you do know what you are supposed to be doing in the labs and you know how you need to behave.

**Late Work**

I would like you to take responsibility for your work in this class. That being said, I will accept all late work for each unit for 20% off of the total possible grade. For example, if there were a 100pt assignment that you turned in and got every question correct, you would earn 80pts. So, on the last day of the unit, if you still have an assignment you haven’t done, you can turn in that assignment and still get up to 80% on it. If you don’t turn in your assignments before the end of each unit, they will not be graded and will receive a zero.

**Excused Absences**

In accordance with Superintendent Policy, students will be given a period of at least the same number of days they were absent to complete their make-up work. For example, if you miss two days of school, you will be allowed to have two days to make up the work, and would be responsible for turning in your work or completing your work by the third school day. The make-up period begins on the first school day following the absence.

(All absences will be assessed on an individual basis. If you are absent for a particular reason, you need to come and see me and we will discuss a reasonable timeframe for the work to be turned in depending on your reason of absence)

**Learning Outcomes**

Each unit will begin with a unit outline and a page that tells you the state standards that will be covered for the unit. This will be a useful tool for the tests and quizzes. It will give you an idea of the skills you should have mastered throughout the unit. A “traffic light” format will be used in order for you to assess your personal knowledge and determine where your strengths and weaknesses are. If there are items on the outline that you are unsure of or do not know, it will give you a good place to focus on when you are studying.

**Personal Conduct**

Each student is expected to conduct themselves according to the guidelines laid out in the handbook and the behavior norms shown by any society that values mutual respect, tolerance, and honesty. Each student is asked to make a commitment to cooperate with any person willing to help them become a better reader, improve their writing skills, or investigate some aspect of science. Each student agrees that temporary or permanent removal from this class or school is justified should they insist on interfering with someone else’s commitment to learn.

**Academic Integrity**

In this class you will be working in groups for various assignments as well as for laboratory activities. I expect that each person within the group does an equal portion of the work. No one likes the slacker, so don’t be one. Also, there is to be no cheating or plagiarizing. You have all heard it before, but it is a big deal. Do your own work, be responsible, and be accountable. Try your best and ask for help if you need it and this won’t be an issue.

*Please keep in mind that this syllabus is subject to change at any time.*