7th Grade GT Physical Science Syllabus and Grading Policies

Ms. Wilbrecht, Swope Middle School

GT Science 2019-2020

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**GT Physical Science Course overview and expectations:**

The GT Magnet’s approach to science curriculum is hands-on and inquiry based. During this year, students will cover grade content standards with a focus on the Next Generation Science Standards. Particular emphasis will be placed on the development of research and literacy skills, critical thinking skills, teamwork skills, and various laboratory techniques.

Students will use observation, experimentation, and the tools of science to reach a scientific understanding of the nature of matter and its interactions. Students will explore forces and motion encountered within their daily lives and come to understand that energy is necessary for all living and non-living systems. Students will learn the characteristic properties of waves and their applications. Throughout this year, the use of models and mathematical thinking will be used to obtain, evaluate, and communicate information. The ‘*Nature of Science’* will be incorporated and supported throughout this course

The following outline is our best indication of the layout for the school year; however, it is flexible and open to some variance based upon individual and class needs

Course Outline:

|  |  |
| --- | --- |
| *Quarter 1: Chemistry Building Blocks of Matter** Intro to Matter
* Elements, Mixtures, Compounds
* Physical Properties and Changes of Matter
* Conservation of Matter
* States and Phase Changes of Matter
* Kinetic Theory of Matter
* **Separation of Mixture Challenge**
 | *Quarter 3: Motion and Stability / Forces and Interactions/ Energy and Work** **Race Car PBL**
* PE and KE Applications
* Types of Energy
* Newton’s Laws of Motion
* Speed, Velocity, Acceleration, Momentum
* Forces
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| *Quarter 2:Chemistry: Atomic Structure and Interactions of Matter** Chemical Properties and Changes of Matter
* Atomic Structure and Models
* Periodic Table (Properties and Organization)
* Bonds
* Balancing Chemical Equations
* Chemical Properties and Changes of Matter
* Acids and Bases
* Polymers
 | *Quarter 4: Waves, Electromagnetic Spectrum and Energy* * Rockets
* Electricity and Magnetism
* Renewable / Non-renewable Energy
* Energy Transfer and Conservation
* Build an electromagnet Waves: Heat/Light/Sound (The Eye and The Ear)
* Electromagnetic Radiation
* **Solar Oven Challenge**
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**Class Materials:** Bring the following materials to class each day. Coming to class unprepared will negatively affect your work ethic grade.

**Panther Planner, Science composition book, pencils, colored pencils.**

We will have supplementary hard copies of textbooks for this class, the middle school physics series of Pearson books. These will be available for check out from Swope’s library.

We will also use the website <http://www.ck12.org> for pre-reading assignments as well as to supplement content from texts and other content related materials for this course.

**Grading Policies:**

The grade book for science will be set up as follows:

|  |  |  |
| --- | --- | --- |
| **Category** | **Details** | **% Overall Grade** |
| Assessments  | tests and summative projects | 60% with semester finals accounting for no more than 10% of the semester overall grade.  |
| Classwork  | formative labs and in class activities | 30% |
| Homework  | Up to 15 minutes per night | 10% |

Homework consists of: studying, pre-reading, finishing labs / classwork, analysis, review, etc.

**Retakes:**

Tests: 2 retakes allowed per semester

* Students will be given a test correction form and a copy of the exam and will need to complete it under the teacher’s supervision (most likely at lunch or after school) prior to retake.
* Retake date will be determined by teacher.
* The test retake grade, whether better or worse than original test grade, will be entered into the grade book.

Labs and Classwork: Students may meet with the teacher after receiving graded work to discuss work resubmissions.

**Resubmits must be turned in within 5 days.**

Policies regarding team rules, academic honesty, attendance, late work, student behavior and work ethic expectations will be addressed in a GT Team letter. I look forward to teaching an exciting Physical Science course that meets science standards and captures your imagination in science as a whole.