



Name \_\_\_\_\_

**Investigations in Science Six - Course Syllabus**

Montgomery Village MS 19300 Watkins Mill Road  
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**Instructor:**





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**OVERVIEW**

Welcome to 6<sup>th</sup> grade Science. Are you ready to become effective scientific investigators by discovering answers to questions like: What should we do when we run out of fossil fuels? Is Global Warming really happening? And if it is, what is causing it? Why might the Checkerspot butterflies disappear from our community? How can we make bumpers on cars more effective? Throughout the year you will use inquiry skills to discover the answers to these questions and much more through our theme “Living in the Natural World.”

**UNITS OF STUDY**

<i>Unit</i>	<i>Title</i>	<i>Content Focus</i>
1	<b>Butterfly Habitat</b> 	Students research reasons for the disappearance of Checkerspot butterflies in Maryland and propose methods of reviving the population. They connect ideas of ecology and environmental issues, diversity of life, change over time, and the flow of matter and energy. Students will also apply technology, engineering and design in a creative planning process and learn that there is no “perfect” solution.
2	<b>Going Green</b> 	Is Global Warming fact or fiction? And if Global Warming is happening, what are the causes. Students will learn about natural resources, human needs, environmental change and issues, as well as human affects on the Earth through natural resource use.
3	<b>Bumper Project</b> 	In this unit, students will be asked to consider the benefits and dangers of driving smaller vehicles. They will investigate the effectiveness of different car bumpers and develop their own model bumper they believe to be the most effective according to research. Students must consider the ideas of motion, force, Newton’s Laws, energy, work, friction, and gravity. They will also once again find that the scientific process is often a trial and error investigation.
4	<b>Solar Collector</b> 	If Maryland needed more energy, what type of power plants should we invest in? Students will research sources of alternative energy to determine which types of power plants would be the most effective in Maryland. They must consider the ideas of electricity, magnetism, electrical energy production, conversions of different types of energy, in order to debate and sell their power plant to the state of Maryland.

**GRADING POLICY**

Students’ academic grades are based on individual academic achievement. Quarter grades will be determined using a scale of: A: 90% - 100%, B: 80% - 89%, C: 70% - 79%, D: 60% - 69%, E: 59% or lower. We will use an array of tools to assess student learning.

<b>Category</b>	<b>Weight</b>	<b>Description</b>
Summative Assessments/ Unit Assessments	25%	Portions or entire Assessment may NOT be retaken. Examples of Summative Assessments include end of unit tests, and culminating projects, and culminating labs.
Formative Assessments	65%	Teacher determines which assessments can be retaken* and will notify students before the assessments. The assessment can be retaken only once. Students must complete required activity(ies) as determined by the Science Department. Examples of Formal Assessments include labs, quizzes, reading and writing assignments, journal entries, warm-ups, exit cards, quizzes, class work, homework evaluated for learning, etc.
Practice/ Prep Homework	10%	Any assignment (textbook assignments and/or worksheets) assigned for practice or preparation for instruction.

MVMS uses the “raw score conversion to percentage” method to calculate grades. Therefore, the # of points a particular assignment is worth does not impact its weight within a category (18/20 carries the same weight as 36/40). However, assignments may still be weighted within categories by assigning weights to specific assignments.

Range of Weights for formative and summative assessments (i.e. quizzes = 2-3, lab reports = 2-3, exit card = 1, or other assignments as determined by the teacher). **No extra credit will be assigned.**

*Reassessment of Student Work: \*Reassessment grade replaces the original grade.\**

- Assessed tasks may be revised to receive a higher grade until the end of a lesson sequence.
- The reassessment grade replaces the original grade even if the reassessed grade is lower.
- Reteaching / relearning activities are determined by the teacher and must be scheduled within the instructional time.
- Assessments may be reassessed partially, entirely, or in a different format.

*Late Assignments: (Due dates / Deadlines - this will be determined in advance by the classroom teacher)*

- Each assignment will have a **due date**. This is the date by which you are expected to submit the assignment. Your grade may drop one letter grade if it is not turned in by the due date.
- The **deadline** is the last day an assignment will be accepted for a grade. Work not turned in by the deadline will be considered missing and receive a 0%. Assignments that are completed and meet minimum standard (as indicated by the Science Department), will earn a minimum grade of 50%.

*Learning Skills Grades:*

In addition to the academic grade, students will receive *Learning Skills Grades* each quarter as well. Learning skills grades will assess students' Participation and Assignment Completion throughout the course. Students may earn the following grades for each of the aforementioned categories:

**C:** Consistently      **O:** Often      **S:** Sometimes      **R:** Rarely      **NI:** Not Enough Information

**HOMEWORK and EDLINE**

A set time to complete homework is a good way to help in establishing a priority at home. You can expect homework two or three times a week in science. You will be required to keep track of your assignments (due dates and deadlines) in your Mustang Data Notebook.

*\*\*Additionally, students and parents should visit Edline daily for posted assignments and daily grade updates ([www.edline.net](http://www.edline.net)). Students are expected to know their grades, and what, if any, work is missing at all times. There should be no surprises about grades to students or parents; if so, please make sure you contact me.\*\**

It would be extremely helpful to enter an active email address in both student and parent Edline accounts. If you need an Edline activation code, please contact Ms. Marable at [Alice\\_Marable@mcpsmd.org](mailto:Alice_Marable@mcpsmd.org).

**Suggested Student Organizational Tools and Supplies** (recommended supply list)

There will be no fees for this course.

- |   |                       |                        |
|---|-----------------------|------------------------|
| - 3-ringed binder (Section for Science)             | - Notebook paper      | - Pens (black or blue) |
| - Calculator (inexpensive one to be kept in binder) | - Tissues             | - Colored pencils      |
| - Marble journal notebooks                          | - Pencils and Erasers | - Highlighter          |



**CLASS EXPECTATIONS**

- All science students will be required to follow safety procedures as designated by the MCPS safety contract. Failure to follow the safety guidelines may result in dismissal from the science laboratory for the remainder of that class period.
- A separate sheet regarding classroom procedures, expectations, and disciplinary actions, will be provided separately and must also be signed by parents.

**COMMUNICATION**

One of the most useful ways we have to communicate is your child's data notebook. Please check this daily for information. I can also be reached by email or by calling the school (301-840-4660). In addition, please check Edline regularly to know if you are missing work (other communication: progress reports / interims, report cards, scheduled conferencing).



**\*\*Please sign this paper below to indicate that you have read and understand these guidelines. Review these guidelines with your parent / guardian and have them sign them to indicate that they also understand the general course description of this class.\*\***

Student Print Name \_\_\_\_\_ Student Signature \_\_\_\_\_

Parent Print Name \_\_\_\_\_ Parent Signature \_\_\_\_\_