**![C:\Users\Courtney Anne\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\WE3QRAH4\MC900089060[1].wmf]()Seventh Grade Science Course Outline**

**Mrs. Handshoe, Team Silver**

**2015-2016**

**INTRODUCTION**

Seventh Grade Science builds upon concepts learned in previous science classes and introduces some new ones. This year in science, students will use the lenses of physical science, life science, and earth and space science to investigate the cycles, patterns, and systems of matter and energy.

Students will continue developing the skills that are necessary for them to think, write, and act as scientists do.

**COURSE GOALS: SCIENCE INQUIRY AND APPLICATION**

(from the Ohio Department of Education)

All students must use the scientific processes, with appropriate laboratory safety techniques to construct their knowledge and understanding in all science content areas:

* Identify questions that can be answered through scientific investigations;
* Design and conduct a scientific investigation;
* Use appropriate mathematics, tools and techniques to gather data and information;
* Analyze and interpret data;
* Develop descriptions, models, explanations and predictions;
* Think critically and logically to connect evidence and explanations;
* Recognize and analyze alternative explanations and predictions; and
* Communicate scientific procedures and explanations.

**SUPPLIES FOR THE SCIENCE CLASSROOM**

Students should always bring these items to class:

* **pencil\***
* **notebook paper**
* **student assignment notebook**
* **science folder (plastic/heavy duty with fasteners and pockets)**

The science folder will be used for science assignments only. It cannot be used for any other class. It can be stored in the student’s file in the back of the room as needed.

\*All assignments must be completed in pencil only!

**CLASSROOM EXPECTATIONS**

The following classroom expectations will guide all interactions in the science classroom.

* Be on time.
* Be prepared.
* Be respectful.
* Be responsible.
* Be positive.

**CLASSROOM RULES**

The following classroom rules ensure the overall safety and well-being of the students, teachers, and science equipment.

* Follow all written and verbal directions the first time they are given.
* No food, drink, candy, or gum of any kind! This is a science lab!
* Raise your hand to comment, ask questions, or to leave your seat for any reason.
* No talking when someone else is talking, no note writing, and no texting!
* The teacher, not the bell, dismisses you.

All school rules and policies apply to the science classroom.

**DAILY ROUTINE**

* Come into the classroom quietly.
* Check the chalkboard for the lesson topic, materials needed, and due assignment(s).
* Have out all needed materials and be in your seat when the bell rings.
* Failure to be in your seat with needed materials by the bell will result in a tardy.

**DISCIPLINE PROCEDURES**

Students are expected to follow all classroom rules and procedures. Failure to do so will result in one or more of the following consequences:

* Verbal Warning
* Removal from Lab
* Lunch and/or Afterschool Detention
* Office Referral
* Parent Contact

Severe or repetitive discipline issues may immediately result in parent contact and/or office referral. Students who are tardy and/or unprepared for class more than five times in one semester will be reported to the office, and will be assigned an afterschool detention.

**STUDENT ASSIGNMENT NOTEBOOKS**

You are given a student assignment book during the first week of school. You are expected to use it daily! Every Monday in science class, you will write down the current week’s agenda: science topics, homework, labs, projects, quizzes, and exams. I will look over your assignment book and initial it each week.

**HOMEWORK**

Homework is a valuable tool that is assigned to practice a particular science skill or concept. Students are allowed to use their science notes and handouts to help them complete their homework assignments. Most assignments can and should be completed during class time. Whatever is not finished in class becomes homework and is generally due the next school day.

**LABS**

Labs are hands-on, minds-on activities for students to gain a deeper understanding of a particular scientific concept. Students will have opportunities to work individually, in pairs, and in small groups. All students are responsible for writing their own individual lab reports. Students will be expected to work like scientists in lab or they will be removed.

**EXAMS**

Exams will be given at the end of each unit. Exams have approximately twenty-five questions, and they only include multiple choice, short answers, and extended response questions.

Exams are cumulative! Each exam will include questions taken from earlier units. We complete, discuss, and correct a study guide designed specifically for the test. Students are expected to study it and all other earlier study guides to prepare for each exam.

**PROJECTS**

Projects will be assigned at various times throughout the school year. Depending on the project, students may work alone, in pairs, or in groups. Project goals, requirements, and grading rubrics will be given well in-advance of their respective due dates. Although students will be given class time to work, they will be expected to budget their time wisely and complete additional work outside of class as necessary.

**HELP**

Do not wait until you are far behind to ask for help. I am available to help in the mornings during homeroom. Please come with a solid attempt on your assignment and any questions you may have about it.

**LATE WORK POLICY**

Students will be given ample time to complete the assigned work. Homework is expected to be completed to the best of your ability and turned in on time. Late work may be turned in before the end of each unit for half credit. This policy only applies to homework; it does not apply to lab reports or projects!

Students with excused absences will be given one day for each day absent to make up missing work with no penalty.

**GRADING POLICY**

Homework assignments are worth approximately 4 to 10 points each. Tests and projects are worth 100-200 points each. Quizzes and labs are worth about 20 to 50 points each. Each nine-week grade will be calculated using a straight average, meaning that all points are weighted the same. Letter grades will be assigned in accordance with the grading scale in the student handbook. **No extra credit assignments will be given to individual students. Class opportunities may be offered occasionally. Cheating or plagiarism on any assignment can result in a zero.**

**WHAT WILL WE LEARN THIS YEAR IN SCIENCE CLASS?**

**7th GRADE SCIENCE CONTENT STATEMENTS**

(from the Ohio Department of Education)

**Physical Science Topic: Conservation of Mass and Energy**

* The properties of matter are determined by the arrangement of atoms.
* Energy can be transformed from one form to another or can be transferred from one location to another, but is never lost.
* Energy can be transferred through a variety of ways.

**Life Science Topic: Cycles of Matter and Flow of Energy**

* Matter is transferred continuously between one organism to another and between organisms and their physical environments.
* In any particular biome, the number, growth and survival of organisms and populations depend on biotic and abiotic factors.

**Earth and Space Science Topic: Cycles and Patterns of Earth and the Moon**

* The hydrologic cycle illustrates the changing states of water as it moves through the lithosphere, biosphere, hydrosphere and atmosphere.
* Thermal-energy transfers in the ocean and atmosphere contribute to the formation of currents, which influence global climate patterns.
* The atmosphere has different properties at different elevations and contains a mixture of gases that cycle through the lithosphere, biosphere, hydrosphere, and atmosphere.
* The relative patterns of motion and positions of the Earth, moon and sun cause solar and lunar eclipses, tides, and phases of the moon.