

North Magnet High School
 Physical Science 2021-2022
 Whitaker's Course Syllabus



Tucker Whitaker (he/him/his)

Honors Physical Science – Plants and Propagation

531-299-4026



PHYSICAL SCIENCE
 COURSE SYLLABUS

<u>Contact Information</u>		<u>Notes</u>
Name:	Mr. Tucker Whitaker	he/him/his pronouns
School Phone:	531-299-4026	Will leave voicemail- will return call ASAP (within 24-48 hours)
Email:	Tucker.Whitaker@OPS.org	Will respond promptly (within 24-48 hours).
Plan Periods	A3 & B4	ROOM 234

Course Description: REQUIRED for Graduation

Physical Science engages students in the three dimensions (science practices, disciplinary core ideas, and crosscutting concepts) of learning as identified by the Nebraska College and Career Ready Standards for Science. The topics include structure & properties of matter, chemical reactions, space systems, energy, weather & climate, forces & interactions, Earth's systems, and waves & electromagnetic radiation. This course meets the district requirement for Physical Science.

***LIFE HACK:** To quickly find and jump to a specific section, hold "Ctrl" and press "f" and type a keyword into the dialogue box.*

For example, if you are wondering about my late work policy you would Ctrl+f "late" and jump directly to that section.

Whitaker's Instructional Philosophy

With the successful completion of a science course, students should be expected to look at the world around them making logical connections to science concepts. It is my goal as a science teacher that students leave my classroom with a better understanding how the world around them works and the beauty that comes with that understanding. I believe differentiation and inquiry are strong components used to engage the student in learning scientific concepts. Each student deserves to learn, and an effort should be made to connect with each student to drive that learning. The use of kinesthetic, visual, and auditory based lessons encourages students to be successful, using their personal learning style. Engaging the students in activities and labs will build inquiry skills needed to be taken out into the student's daily environment. Questioning possibilities, problem solving, and critical thinking skills can increase with the use of inquiry and builds well rounded citizens.

Whitaker's Beliefs	
Black Lives Matter	
No Human is Illegal	
Refugees Welcome	
Women's Rights are Human Rights	
<i>Science is Real</i>	
Everyone Deserves Respect	
♀	←Be Inclusive → LGBTQ
♂	

Nebraska College and Career Ready Standards

- SC.HS.1.1 Gather, analyze, and communicate evidence of forces and interactions.
- SC.HS.2.2 Gather, analyze, and communicate evidence of the interactions of waves.
- SC.HS.3.3 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.
- SC.HS.4.4 Gather, analyze, and communicate evidence of the interactions of energy.
- SC.HS.5.5 Gather, analyze, and communicate evidence of chemical reactions.
- SC.HS.11.1 Gather, analyze, and communicate evidence to defend that the universe changes over time.
- SC.HS.12.2 Gather, analyze, and communicate evidence to support that Earth's climate and weather are influenced by energy flow through Earth systems.
- SC.HS.13.3 Gather, analyze, and communicate evidence to defend the position that Earth's systems are interconnected and impact one another.

Major Units of Study and Tentative Timelines: below each Unit of Study are the Teaching “Lenses” will we use to cover the concepts.

Unit 1: Universal Forces (Weeks 1-6)
Rocketry, Collisions, Attractive and Repulsive Forces
Unit 2: Space Chemistry (Weeks 7-18)
“Star Dust”, Rusting, and Rocket Fuel
END OF 1 st SEMESTER
Unit 3: Earth’s Physics (Weeks 19-27)
Earthquakes, Mechanical and Electromagnetic Waves, and Communication (cell phones, internet)
Unit 4: Earth’s Energy Systems (Weeks 28-36)
Climate, Weather, Water Cycle



Overall Course Expectations: How to be Successful in this Class

- ❖ Complete coursework, both in and out of class, in a timely fashion.
- ❖ Participate during in-class discussion and cooperative learning opportunities.
- ❖ Complete formal lab write-ups.
- ❖ Create technology-based projects and presentations.
- ❖ Bring all required materials to class (iPad, notebook, writing utensil, etc.)

Be A Viking

Be Respectful

- Use appropriate language and volume
- Treat others kindly
- Accept feedback
- Maintain personal boundaries

Be Responsible

- Be on time to class
- Be prepared with all materials
- Actively participate in learning

Be Accountable

- Use technology appropriately
- Follow pass procedures
- Accept redirection calmly

Overall Class Rules and Expectations

Be Respectful, Be Responsible, Be accountable

- **Rules and guidelines set forth in the student handbook will be followed in this class.**
 - Student Handbooks can be found in the “Books” Application on student iPads or via email from Dr. Nero
- **Respect yourself and all others**, both students and adults, by allowing all persons to maintain their dignity, **unconditionally**. Language should reflect your understanding that this is a classroom in which **everyone is welcome and respected**, regardless of difference or innate ability.

- **Responsibility falls on you to be in class and on time**; entering after the bell has stopped ringing will be counted tardy. **It is also my class expectation that you are responsible for bringing your school device (w/ charger) to each class session***. You also need to be a responsible, **positive advocate** for your needs and the needs of others.
 - *Much of our work will be done with the aid of technology (school devices). If you have not elected to check out an iPad, I will have alternatives for you. However, if you elected to check out a device it is expected that you bring it with you to each lesson.
- **Be accountable for your education!** Be a **positive, active participant** in my classroom. Have learning materials ready, complete your assignments on time, participate in classroom activities and discussions respectfully, and raise your hand to ask or answer questions.
- **Electronic Devices:** No personal electronic devices (cell phones, mp3 players, games, etc.) are permitted to be seen, heard, or used in the classroom at any time, **per school policy**. **Devices may only be used for classwork, activities, and research.**
 - If you cannot follow this expectation, you will need to do an alternative assignment that does not require the technology.
- **Food:** Water bottles are encouraged. Other FOOD/DRINK should be consumed outside the classroom & lab.

Accountability and Consequences

These classroom rules and expectations are designed to maintain a safe and conducive learning environment for **ALL** students. Student's who violate these rules will be held accountable, with consequences that are aligned with the violation.

I, Mr. Whitaker, will make it a priority to communicate clearly and quickly to students, parents, and other stake holders. Students will always be given a reminder/warning about minor behavior prior to receiving any consequences. Phone calls or email communications will promptly be made to parent/guardian to inform and address the issues. Continued violations will result in detention or referral to administrators.

Safety Expectations

Physical Science is a lab-based course with safety as an essential component. The safety guidelines support and encourage an investigative approach and laboratory instruction, while at the same time assisting in the development of a safe learning environment. Students will follow the Omaha Public Schools district guidelines on safety, which are published in the Science Safety Contract. Students will be provided a copy of the guidelines. The students, parents and/or guardians are expected to read the guidelines and sign and return the signature portion of the contract. The student will not be allowed to participate in the lab activities until the signed contract is returned.

Texts: We will not be using this as a primary resource

- Pearson *Physical Science: Concepts in Action* (2018). All students will have access to the online textbook through their Office365 account. Please contact me with issues accessing the textbook.
- Any other reading material required will be supplied by Mr. Whitaker.

Assessment of Learning

Course grades will be determined by planned assessments such as classroom assignments, tests, quizzes, laboratories, and projects scored with rubrics.

- Students should expect to be formatively assessed, for a grade in infinite campus multiple times per week. *Attendance is crucial for success.
- Two or three major tests and/or writing projects are to be expected during, and at the end of, each major unit outlined above. (SUMMATIVE GRADES)

OPS Secondary Grading Practices: these are district guidelines and cannot be altered by me for any reason.

All coursework and assessments are judged based on the level of student learning from “below basic” to “advanced.” This course will provide multiple opportunities to achieve at the “proficient” to “advanced” levels. Students are evaluated based on a proficiency scale or project rubric. Proficiency scales for this course are available upon request.

Weighting Assignments (Using A Multiplier):

When entering grades in the grade book, teachers may assign greater weight to some assignments than others. For example, the final exam may impact a student’s summative grade more than a unit test. Teachers will have the option to use the multiplier to weigh both formative and summative assessments to a maximum of 4. **If a weight of 2 or more is applied to an assessment, this information will be communicated to students at the time the assessment is announced.**

There are three types of coursework:

- ❖ **Practice** – assignments are brief and done at the beginning of learning to gain initial content (e.g., student responses on whiteboards, a valid sampling of math problems, keyboarding exercises, and diagramming sentences, checking and recording resting heart rate). Practice assignments are not generally graded for accuracy (descriptive feedback will be provided in class) and are not a part of the grade. Teachers may keep track of practice work to check for completion and students could also track their practice work. Practice work is at the student’s instructional level and may only include Basic (2) level questions.
- ❖ **Formative (35% of the final grade)** – assessments/assignments occur during learning to inform and improve instruction. They are minor assignments (e.g., a three-paragraph essay, written responses to guiding questions over an assigned reading, completion of a comparison contrast matrix). Formative assignments are graded for accuracy and descriptive feedback is provided. Formative work may be at the student’s instructional level or at the level of the content standard. Formative assessments/assignments will have all levels of learning – Basic (2), Proficient (3), and Advanced (4), which means that for every formative assessment/assignment, students will be able to earn an Advanced (4). Teachers will require students to redo work that is not of high quality to ensure rigor and high expectations. The students’ score on a formative assessment that was redone will be their final score. It is recommended to have three to five formative assessments for every one summative assessment.
- ❖ **Summative (65% of the final grade)** – assessments/assignments are major end of learning unit tests or projects used to determine mastery of content or skill (e.g., a research paper, an oral report with a power point, major unit test, and science fair project). Summative assignments are graded for accuracy. Summative assignments assess the student’s progress on grade level standards and may not be written at the student’s instructional level. Summative assessments/assignments will have all levels of learning – Basic (2), Proficient (3), and Advanced (4), which means that for every formative assessment/assignment students, will be able to earn an advanced (4).

To maintain alignment of coursework to content standards, which is a key best practice for standards-based grading, teachers will utilize a standardized naming convention for each of the standards within a course. The content standard will be marked on each assignment entered into Infinite Campus (District Grading Program) using all capital letters followed by a colon. After the colon will be the title of the coursework. At the end of the grading period, scores are converted to a letter grade using this grading scale.

A = 3.26 – 4.00
B = 2.51 – 3.25
C = 1.76 – 2.50
D = 1.01 - 1.75
F = 0.00 – 1.00

General Submission Procedure:

ALL assignments will be distributed and completed on the OneNote Application. Assignments completed ON-TIME in OneNote Class Notebook DO NOT need to be shared or otherwise submitted- Mr. Whitaker will check/assess them in your folder regardless of progress.

OneNote



- Feedback/Score will be written directly onto these OneNote pages for reference!
- **You may complete assignments in Microsoft Word, on paper, or otherwise! However, a screenshot or picture (that is legible) must be inserted into the specific page on OneNote.** If technical issues prevent this, it's your responsibility to reach out ASAP!

Redoing/Revising Student Coursework:

- ❖ Students are responsible for completing all coursework and assessments as assigned. Reasonable time will be given to complete assignments **during class**. Only coursework not finished during classtime will be homework, no work will be designed to be done by the student from home.
- ❖ Students **may be allowed to redo and revise coursework for full credit during that unit of study based upon Mr. Whitaker's professional judgment and evidence collected throughout the unit.** Scores for student work after retaking, revising or redoing will not be averaged with the first attempt at coursework or assessment but will replace the original student score.
- ❖ Students are expected to complete assessments when given to the class, or if a student was justifiably absent, at a time designated by Mr. Whitaker.
- ❖ **Redoing, retaking or revising will be done at teacher discretion in consultation with the student and parent(s).** Mr. Whitaker may schedule students before, during, or after school to address needed areas of improvement- if not convenient during class. The time and location for redoing, retaking or revising will be done at the Mr. Whitaker's discretion in consultation with the student and parent(s).

Late Coursework

Students are expected to complete coursework on time. **Late coursework may be accepted for full credit until the end of the unit based on the teacher's professional judgment and evidence collected throughout the unit.** Accepted late work will not result in a reduction in grade and the M (Missing) will be replaced with the score earned by the student. Mr. Whitaker or North High may make exceptions depending upon student circumstances (such as prolonged absences due to illness).

Missing Coursework

Work not turned in at all will be recorded in Infinite Campus (district grade book) as an M for missing, which calculates to a score of zero. **Missing coursework may be accepted for full credit until the end of the unit based**

on the teacher's professional judgment and evidence collected throughout the unit. Accepted missing work will not result in a reduction in grade and the M (Missing) will be replaced with the score earned by the student. Mr. Whitaker or North High may make exceptions depending upon student circumstances (such as prolonged absences due to illness).

Independent Practice (Homework)

The role of independent practice is to develop knowledge and skills effectively and efficiently during the unit of study. Independent practice helps guide the learning process by providing accurate, timely and helpful feedback to students without penalty. Assessments will be designed to be completed during classtime!

Please reach out with Questions or Concerns!