

# HONORS PHYSICAL SCIENCE SYLLABUS

| <i>Instructor (Classroom)</i> | <i>Phone</i> | <i>Email</i>   |
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## Availability

Teacher availability is updated each week on Monday. Be sure to check the board in class regularly.

## Course Description

Physical Science is an introductory science course focused on understanding the nature of science and preparing students for continued success in high school science. We will cover topics in physics, chemistry and earth science while developing skills in scientific exploration and engineering design. This course is intended to provide students with a structured and systematic approach to viewing the world around us while developing critical thinking, problem solving and teamwork skills.

## Topics of Study

### *Trimester A: Physics*

Nature of Science  
Motion  
Forces and Newton's Laws  
Energy, Work, and Power  
Electricity and Energy Sources

### *Trimester B: Chemistry*

Waves and the Universe  
Matter and the Periodic Table  
Nuclear Radioactivity  
Nomenclature & Bonding

\*Learning Targets will be provided at the beginning of each unit.

## Required Materials

Students will need to come prepared to class with the following materials every day:

- Yourself! (There is no substitute for being in class! Make it a priority to be here!)
- Pens and pencils
- A 3-ring binder with loose leaf paper dedicated to Physical Science
- A Quad-ruled Composition Lab Notebook dedicated to Physical Science
- Tri-fold display board for science fair
- A scientific calculator (Cell phones **cannot/will not** be used as a calculator on an assessment or quiz)

## Grading

Grades for Physical Science will be updated on AH-Connect frequently and will be based on the Anoka-Hennepin ISD#11 Grading Scale:

|              |              |              |
|--------------|--------------|--------------|
| A 93.00-100% | B- 80-82.99% | D+ 67-69.99% |
| A- 90-92.99% | C+ 77-79.99% | D 63-66.99%  |
| B+ 87-89.99% | C 73-76.99%  | D- 60-62.99% |
| B 83-86.99%  | C- 70-72.99% | F 0-59.99%   |

Grades will be weighted into the following categories (all weights are approximate):

- Assessments – 70%  
Includes: Unit Tests and Practical Assessments
- Quizzes - 5%  
Includes: Checkpoint quizzes on specific topics with the goal of preparing students for the unit assessment.
- Lab/Unit work – 15%  
Includes: In class activities and formal labs. Formal labs will be graded based on the rubric provided in class.
- Final Exam – 10%  
Includes: District Common Assessment and CSA lab report performance

Note: Not all assignments, labs, and quizzes will be graded. All materials are given for the purpose of understanding the course material. All grades are final on the last day of class and/or after all assignments/assessments are in the gradebook. Grade “bumps” are non-negotiable.

### **Lab/Unit Work**

Students should expect to have homework often. All work (unit assignments and labs) are expected to be turned in on the assigned due date OR on the review day for each unit (day before unit assessment). The instructor reserves the right to postpone due dates. Students requesting an extension should do so before the due date. If students are absent on the day of a lab, they will be expected to make-up the lab. Each lab will have *one* scheduled make-up session during advisory or after school. Students are responsible for making arrangements for this with their instructor. The final deadline for late unit work is the same as assessment retakes - two weeks after the original assessment date.

### **Academic Dishonesty**

Students are expected to complete their own work. Any form of cheating will not be tolerated and will result in a possible zero on the assignment and referral to administration.

### **Extra Credit**

Grades are determined by a percentage of the points earned on assessments, quizzes, classwork, and the final exam. Additional extra credit opportunities will not be available in Physical Science. This is at the discretion of the instructor.

### **Quizzes**

Quizzes will be given at specific checkpoints throughout each unit. The goal of quizzes is to prepare students for the unit assessment. Quizzes cannot be retaken and students should be reviewing their notes and class work to prepare to take them. Students must take all unit quizzes before taking the unit exam. Any missed quizzes due to absence will be issued the next day of attendance.

### **Testing**

Students are expected to take the exam on the day it is scheduled. The instructor reserves the right to postpone the scheduled exam date. If a student is absent for the scheduled exam date, they will be expected to take the exam on the day they return to class.

Unit tests may be retaken once for each assessment (CSA cannot be retaken). An assessment self-reflection form must be completed, signed by a parent/guardian, and checked off by the teacher prior to a retake opportunity. There are several options for relearning the material to prepare for a retake: completing all homework assignments, Husky House, attending W.I.N time, and before/after school opportunities. All retakes must be completed within 2 weeks of the original assessment date. Deadlines for retakes will be set and communicated by the instructor. **So that student grades reflect the most recent evidence of learning, retake scores will always replace previous scores.**

**Reassessment opportunities are only available to students who put forth a consistent effort, are respectful to classmates, and the learning environment.**

### **Textbook**

- Dobson, K., Holman, J., & Roberts, M. (2006). *Science Spectrum: Physical Science*

Students will **not** be issued a copy of the textbook for this course. We will not use it often, but the textbooks will be available in class when necessary. Physical copies of the textbook may also be checked from the instructor if necessary.

*Anoka-Hennepin Independent School District No. 11*  
**Safety Procedures in Secondary School Science Classrooms**

1. Written and verbal instructions concerning procedures and/or precautions are given for my protection. I will read and listen carefully, and follow all directions.
2. Experiments done in class are for instruction. They are planned in order to teach an idea. I will perform only authorized experiments.
3. I will handle only those chemicals or equipment for which I have received training. No control for gas, air, or water is to be turned on except for lab work. Electrical outlets are only to be used for electrical plug-ins; other inserts are dangerous.
4. Tasting, smelling, or mixing unknown substances can be very dangerous. I will not do so unless instructed to do so in a planned, approved experiment, with proper techniques.
5. Chemicals are labeled to identify them. I will always carefully read the label to be sure I am using the correct substance. To avoid contaminating chemicals, I will not return used or unused chemicals to reagent containers. I will dispose of chemicals as my teacher directs and never mix chemicals in the sink drain.
6. To avoid splattering when mixing acids, I will add acid to water.
7. Horseplay and practical jokes in the science classroom are dangerous and can be expensive. I will practice safe conduct in the classroom.
8. Fire is dangerous and care must be taken when working with it. I will not reach across a flame or bring a flammable substance near flames. I will confine long hair and loose clothing to prevent it from igniting. I know where the fire extinguisher is located and how to use it. All fires must be extinguished, gas off, and materials capped before departing from the classroom for a fire drill or other school activity. I will not carry any lighted splints away from the lab station.
9. Safety equipment (eyewash, shower, first-aid kit) is provided in the science classroom in case of an emergency. I know how and when to use this equipment.
10. Hot materials, such as glassware, hot plates, burners, and chemicals can cause serious burns. I will be extremely careful when working with these to prevent injury to others and myself.
11. I will be sure the open end of a test tube points away from anyone while the test tube is being heated or shaken. I will always heat test tubes evenly to prevent liquid from "shooting."
12. Broken glass is dangerous. I will use a broom and dustpan to immediately pick up all broken glass and place it in the broken glass container.
13. Safety goggles are required by law (MN Statutes, Section 126.20 [Ex. 1967, C14, S1-6]). Goggles must be worn covering the eyes during all activities using fire or glassware; mixing, handling or heating chemicals; chipping rock; or whenever danger exists to the eyes. I will wear my safety goggles unless permission to remove them is granted by the teacher.
14. I will wear other necessary apparel required for specific work, i.e. apron, gloves, shoes, outdoor gear.
15. If an incident should occur that results in injury to others or myself in the classroom or damage to equipment, I will immediately report it to my teacher, no matter how minor the injury or damage may appear. Chemical spills on skin or clothes should be flushed with water immediately. All accidents, cuts, or spilled chemicals should be reported immediately to the instructor.
16. I will not eat, drink, or chew gum in the science classroom. I will always wash my hands carefully after handling chemicals or animals.
17. I will use proper techniques and be careful with sharp instruments.
18. It is important to know the exits to be used in case of emergencies. Students must not sit in aisles, which would prevent emergency exit from the classroom. Likewise, projects, materials, or equipment must not be stored so as to slow room evacuation. I am familiar with exits and the appropriate action to take when the emergency signal is heard.

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We have read and understood the honors physical science course syllabus and the Anoka-Hennepin safety procedure guidelines. We understand the requirements of the course and how this course will operate. We have visited the instructor's website/homepage and know how to find classroom materials and information.

Student's Printed Name: \_\_\_\_\_ Hour: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent/ Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_