Welcome to Physical Science!

Classroom/Course Procedures

Overview:

Physical Science is an elective science course that will provide opportunities to explore many physic concepts. By the end of this course students should be able to explain common physical phenomena, design and implement an experiment, make reasonable claims based upon evidence collected, and evaluate claims made by others using evidence and reasoning.

Tentative Course Content and Sequence: The following provides a tentative outline; however, adjustments may be made based upon student interests and other considerations.

0: Observations, MEasurements and Density	4: Projectiles	8: Electricity and Magnetism
1: Models of Position and Motion	5: Energy in Mechanical Systems	9: Mechanical Waves
2: Inertia, Momentum and Change	6: Fluids	10: "Light"
3: Interactions	7: Electrical Energy	1 2025-26 Agenda

Teacher: Mrs. Mann pmann@oriskanycsd.org

- Period 1 Physics
- Period 2 APP1L (AC) RPhyL (BD)
- Period 3 RChemL (BD)
- Period 4 RChem
- Period 5 Lunch
- Period 6 Student Support
- Period 7 Physical Science
- Period 8 Study Hall (AC)
- Period 9 AP Physics

Please contact Mrs. Mann via email with questions or concerns anytime! Contact at the FIRST SIGN of concern. Mrs. Mann will make arrangements to provide you the support that you need to achieve your goals!

Expectations:

- Be here on time and ready for science.
- Bring your fully charged chromebook, chromebook charger, paper, pencil, ruler and scientific calculator.
- **Do your best work and be honest with me and with yourself.**
- **Be respectful of yourself, your classmates, myself, and anyone else here**.
- Ask questions and ask for help.
- Do your work and submit it on time

Grades: Grading procedures are designed to promote integrity and growth.

• **Summative Assessment** • **Formative Assessment**	• **60%** • **40%**
Final Average is determined using the four marking period averages and the final exam or project.	

Classwork, homework and test corrections are formative assessments. All formative assessment work may be revised and resubmitted. When work is resubmitted within two weeks of the original grade recording date (but not later than the last Wednesday of the marking period), it will be reassessed and the grade will replace the original. Students can negotiate to have low formative assessment grades dropped when work is completed or corrected after the two week window. Test dates and study guides are posted in on the Daily Agenda, usually at the beginning of each unit, but at least three days before each test.

Summative assessments are designed to measure your level of mastery. Corrections are recorded as formative assessment. The original test grade will be recorded twice; once as the assessment (Name) under "Summative," and once as the correction (cName), under "Formative". The grade recorded as a "cName" will then be **adjusted (all students can earn 100%) as accurate *AND JUSTIFIED*** corrections are made. Inaccurate corrections, or those lacking adequate explanation for the correct answer, will be returned for further correction. **Corrections and re-corrections will be accepted within two weeks of the original grade recording date, but not during the last week of the marking period.**

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Attendance Procedures – Students are expected to attend and participate in every scheduled class and lab period. Absence does not relieve a student of responsibility for labs, class work, tests or projects, as all materials are available in electronic form hyperlinked on the daily agenda. Students absent prior to a test will generally be expected to take the test as scheduled and engage in the correction and alternate version procedures.

Cell Phone Expectations:
Students will abide by the device free bell to bell policy adopted by the Oriskany Central School District.

Course Concerns:
I want you to enjoy this class. Do not hesitate to contact me if you feel unsure about material or need any type of help. I will help you achieve the goals that you want to work toward.

I am looking forward to a wonderful year. If you or your parents (guardians) have questions or concerns, please contact me by email pmann@oriskanycsd.org. This is the most efficient way to communicate with me. Please do not hesitate to share your concerns as soon as they begin to develop. An ounce of prevention is worth a pound of cure. It has been my experience that we all enjoy the year most when we recognize that we all have the same goal! We want you to succeed!

National Science Teachers Association—1840 Wilson Boulevard—Arlington, VA 22201
October 2017 (www.nsta.org/safety)
High School Safety Acknowledgment Form

Science is a process of discovering and exploring the natural world. Explorations can occur in the classroom/laboratory or in the field. As part of your science instruction, you will conduct many activities and investigations that will involve the use of a variety of materials, equipment, and chemicals. As a result, you may be exposed to biological, chemical, and physical hazards. Safety is the FIRST PRIORITY for students, instructors, and parents. To ensure safer experiences, the following safety operating procedures—based on legal safety standards and better professional safety practices—have been developed for the protection and safety of everyone. Your instructor will provide additional safety procedures for specific situations or settings. The safety operating procedures must be followed at all times. Review these procedures with your instructor and parents/guardians, then sign and get the signature of a parent/guardian. Your signature indicates that you understand the lab can have hazards, and that you have read the safety procedures and agree to follow them at all times. Signatures are required before you can participate in any activity or investigation.

Safety Standards for Student Conduct in the Classroom, Laboratory, or Field

- Conduct yourself in a responsible manner at all times. Inappropriate behavior such as throwing things, and doing unauthorized experiments are prohibited.
- Read all lab and safety operating procedures before conducting an activity and follow all verbal and written instructions during the activity or investigation
- Eating, drinking, chewing gum, applying cosmetics (including lip balm), touching contact lenses, or conducting other unsafe activities are not permitted. Food storage is not allowed in the laboratory.
- Do not enter or work in the laboratory unless an instructor is present.
- Unauthorized and unsupervised activities or investigations are prohibited.
- Never enter chemical storage or preparation areas.
- Removing chemicals or equipment from the classroom or laboratory is prohibited unless authorized by the instructor.
    - Do not touch any materials, equipment, etc., for a lab activity until instructed to do so by the teacher.

Personal Safety

- Sanitized indirectly vented, chemical-splash goggles (ANSI/ISEA Z 87+ D3) or safety glasses (ANSI/ISEA Z 87+ D3), as appropriate, should be worn during setup, hands-on activity, and take-down/cleanup unless the instructor specifically states that the activity or demonstration does not require the use of eye protection. Indirectly vented, chemical-splash goggles must be worn whenever you are working with chemicals, a heating source, particulate matter, or glassware. Notify the teacher immediately if your goggles are damaged or do not fit properly.
- When an activity requires the use of non-latex laboratory aprons, the apron shall be appropriate to the size of the student and the hazard associated with the activity or investigation. The apron may be removed only when the instructor notes it is safe to do so.
- Dress appropriately for laboratory work by protecting your body with clothing and shoes.
    - Long hair should be tied back collars tucked in.
    - Avoid wearing loose or baggy clothing and dangling jewelry.
    - Acrylic nails are a safety hazard near heat sources and should not be used.
    - Sandals or open-toe shoes are not to be worn during any lab activities. Refer to pre-lab instructions. If in doubt, ask!

- Know the location of and how to operate all safety equipment in the room. This includes eyewash stations, the deluge shower, fire extinguishers, the fume hood, and the safety blanket. Know the location of emergency master electric and gas shutoffs and exits.
- Certain classrooms or laboratories may have living organisms including plants and animals in aquaria or other containers. Students should not handle organisms without approval from your instructor. Wash your hands with soap and water after handling organisms.
- When an activity or investigation requires the use of non-latex laboratory gloves for hand protection, the gloves shall be appropriate for the hazard and worn throughout the activity. Cover all cuts, broken skin, or wounds with a waterproof dressing to reduce or prevent exposure. Wash hands thoroughly with soap and water after removing gloves.
- Keep hands away from the face at all times. Do not put hands or other objects in or near your mouth or eyes.
- All accidents, chemical spills, broken glassware, and injuries (including minor burns) must be reported immediately to the instructor, no matter how trivial they may seem at the time. Follow your instructor's directions for immediate treatment.

Safety Precautions Regarding Chemicals and Lab Equipment

- Never taste or smell a chemical solution. When checking for odor, waft by sweeping your hand over the container. Avoid inhaling fumes that may be generated during an activity or investigation.
- Never fill pipettes by mouth suction. Always use the suction bulbs or pumps.
- Do not force glass tubing into rubber stoppers. Use glycerin as a lubricant and hold the tubing with a towel as you ease the glass into the stopper.
- Proper procedures shall be followed when using any heating or flame-producing device, especially gas burners. Remove all flammable materials from the area before lighting a match, candle, or Bunsen burner. Never leave a flame unattended.
- Never dispense flammable liquids near an open flame or heat source. Avoid facing the open end of a test tube toward yourself or other students when being heated.
- Remember that hot glass looks the same as cold glass. After heating, glass remains hot for a very long time. Determine if an object is hot by placing your hand close to the object without touching it. After using a hot plate or working with hot glass, warn others of a possible burning hazard by placing a sign nearby indicating that it may be hot.
- In the event of a fire drill, lockdown, or other emergency during an investigation or activity, turn off all gas burners and electrical equipment. During an evacuation emergency, exit the room as directed. During a lockdown, move out of the line of sight from doors and windows as directed. Lights should be turned off.
- Always read reagent bottle labels twice before you use the reagent to be certain you are using the correct chemical. Do not use any chemicals stored in unlabeled bottles and inform your teacher if a label is missing from a reagent bottle.
- Replace the top on any reagent bottle immediately after use and return the reagent to the designated location. Follow the teacher's instructions for carrying chemicals.
- Do not return unused chemicals to the reagent container. Follow the instructor's directions for the storage or disposal of these materials.

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Standards for Maintaining a Safe Laboratory Environment

- To prevent potential cross contamination, backpacks and books are to remain in an area designated by the instructor and should not be brought into the laboratory area.
- Never sit or stand on laboratory elevated platforms (e.g., tables, desks, etc.).
- Work areas should be kept clean and neat at all times, and cleaned at the end of each laboratory or activity.
- Solid chemicals, metals, matches, filter papers, broken glass, and other materials designated by the instructor are to be deposited in the proper waste containers, not in the sink. Follow your instructor's directions for disposal of waste.
- Sinks are to be used for the disposal of water and those solutions designated by the instructor. Other solutions must be placed in the designated waste disposal containers.
- Glassware is to be washed with hot, soapy water and scrubbed with the appropriate type and size of brush, rinsed, dried, and returned to its original location.
- Appropriate eye protection (e.g., safety goggles, safety glasses) is to be worn during setup, hands-on activity or investigation, and take down/cleanup, and until hands can be thoroughly washed with soap and water.
- To prevent accidental release, discharge, or injury, handle with extreme caution all projectiles, spring-loaded devices, meter sticks or similar levers, and other physical hazards, such as bare wires, blades, and other sharps. Eye protection must be worn.
- Safety Data Sheets (SDSs) contain critical information about hazardous chemicals of which students need to be aware. Your instructor will review the important points on the SDSs for the hazardous chemicals students will be working with and also post the SDSs in the lab for future reference.
- Indirectly vented chemical-splash goggles (ANSI/ISEA Z 87+ D3) or safety glasses (ANSI/ISEA Z 87+ D3), as appropriate, must be worn by all students, teachers, and visitors in the laboratory during work periods INCLUDING SETUP, HANDS-ON ACTIVITY, and TAKE-DOWN/CLEANUP in accordance with legal safety standards and/or better professional practices. Indirectly vented, chemical splash goggles must be worn whenever chemicals, a heating source, particulate matter, or glassware are present.

WHEN IN DOUBT, WEAR GOGGLES!

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Name:_____ Safety Quiz (turn in with signed contract)

1. If you wear contact lenses in the school laboratory, advise your science instructor that
   a. you wear contact lenses.
   b. take them out before starting the lab.
   c. you do not have to wear protective goggles.
   d. keep the information to yourself.

2. Hot glass looks the same as cold glass.

   True False

3. It's okay to pick up broken glass with your bare hands as long as the glass is placed in the trash.

   True False

4. All unauthorized experiments are prohibited.

   True False

5. Never remove chemicals or other equipment from the laboratory.

   True False

6. You are heating a piece of glass and now want to pick it up. You should
   a. use a rag or paper towels.
   b. pour cold water on it.
   c. pick up the end that looks cooler.
   d. use tongs.

7. What kind of footwear is required during laboratory experiences?

8. Chipped or cracked glassware is okay to use.

   True False

9. Flammable materials, like alcohol, should never be dispensed or used near
   a. a sink.
   b. an open flame.
   c. another student.
   d. an open door.

10. After completing an experiment, all chemical wastes should be
    a. disposed of according to your instructor's directions.
    b. taken home.
    c. dumped in the sink.
    d. left at your lab station for the next class.

11. When gathering glassware and equipment for an experiment, you should
    a. read all directions carefully to know what equipment is necessary.
    b. examine all glassware to check for chips or cracks.
    c. clean any glassware that appears dirty.
    d. All of the above.

12. Return all unused chemicals to their original containers.

    True False

13. Long hair in the laboratory must be
    a. cut short.
    b. held away from the experiment with one hand.
    c. tied back or kept entirely out of the way with a hair band, hairpins, or other confining device.
    d. always neatly groomed.

14. What is expected at the end of every investigation in terms of lab safety and hygiene?

15. You want to place a piece of glass tubing into a rubber stopper after the tubing has been fire polished and cooled. This is best done by
    a. lubricating the tubing with water or glycerin.
    b. using a towel or cotton gloves for protection.
    c. twisting the tubing and stopper carefully.
    d. all of the above.

16. Never leave a lit burner unattended.

    True False

17. You are allowed to enter the chemical preparation/storage area any time you need to get an item.

    True False

18. If a laboratory fire erupts, immediately
    a. run for the fire extinguisher.
    b. notify your instructor.
    c. open the windows.
    d. throw water on the fire

19. In a laboratory, the following are NEVER appropriate.
    a. dangling jewelry.
    b. loose clothing.
    c. Sandals.
    d. all of the above.

20. You have been injured in the laboratory (cut, burn, etc.). First you should
    a. tell the science instructor at once.
    b. apply first aid yourself.
    c. visit the school nurse after class.
    d. see a doctor after school.

21. All chemicals in the lab are to be considered dangerous.

    True False

22. When you finish working with chemicals, biological specimens, and other lab
    a. substances, always
    b. wipe your hands on your clothes..
    c. wipe your hands on a towel.
    d. wash your hands thoroughly with soap and water.
    e. treat your hands with skin lotion.

23. If a lab experiment is not completed, you should
    a. make up some results.
    b. discuss the issue with your instructor.
    c. copy results from a classmate.
    d. come in during lunch and finish while eating lunch.

24. You are heating a substance in a test tube. Always point the open end of the tube
    a. straight up.
    b. away from all people.
    c. toward yourself so that you can see into the tube.
    d. toward your lab partner.

25. If a piece of equipment is not working properly, stop, turn it off, and tell
    a. your lab partner.
    b. your best friend in the class.
    c. the science instructor.
    d. the custodian.

26. Approved eye protection devices (such as goggles) are worn in the laboratory
    a. only if you don't have corrective glasses.
    b. to improve your vision.
    c. any time chemicals, heat or glassware are used.
    d. to avoid eye strain.

27. If an acid is splashed on your skin, wash at once with
    a. soap.
    b. weak base.
    c. plenty of water.
    d. oil.

28. If you do not understand a direction or part of a lab procedure, you should
    a. skip it and go on to the next part.
    b. ask the instructor before proceeding.
    c. figure it out as you do the lab.
    d. try several methods until something works.

29. Laboratory work can be started immediately upon entering the laboratory even if the instructor is not yet present.

    True False

30. Horseplay or practical jokes in the laboratory are
    a. okay if you are working alone.
    b. not dangerous.
    c. always against the rules.
    d. okay.

Agreement:
I have read the above safety operating procedures and agree to follow them during any science lab, investigation, or activity. By signing this form, I acknowledge that given the biological, chemical or physical hazards, the science classroom, laboratory, or field can be an unsafe place to learn. The safety-operating procedures are developed to help prevent accidents and to ensure my own safety and the safety of my fellow students. I will follow any additional instructions given by my instructor. I understand that I may ask my instructor at any time about the safety operating procedures if they are not clear to me. My failure to follow these science laboratory operating procedures may result in disciplinary action.

_____

(Student Signature) (Date)

I have read and reviewed the lab safety rules with my child.

_____

(Parent/Guardian Signature) (Date)

Please return ONLY the quiz and the contract. Keep all preceding pages for your records.