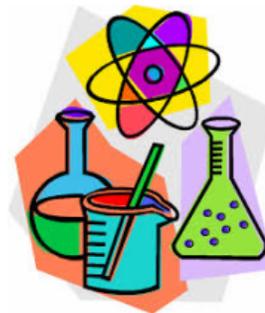


**9th Grade
Pre-AP Integrated Science
Syllabus**



Teacher: Mr. Krupa

Email: jkrupa@pomounties.org

Purpose:

This course is designed to build a foundation for students pursuing an AP science pathway. As a foundational course for the Keystone Biology test, this course intensely covers chemistry, ecology, evolution, and genetics

Required Materials:

Please bring the following to class with you every day...

1. Pen/Pencil
2. 1 Subject Notebook or 3 Ring Binder
3. Computer
4. **Textbook:** Pearson Custom Library Created by Philipsburg-Osceola Area School District

Grading Policy

1. Grades will be determined according to the district's grading policy.
2. The following are all assignments that have the potential to be graded.
 - a. Homework
 - b. Classwork
 - c. Quizzes
 - d. Chapter Tests
 - e. Lab Reports
2. Late work will not be accepted, unless the student is absent the day of/ day(s) prior to an assessment. **It is on the student to obtain the materials they missed from the absent work folder/ workout a timeline with the teacher. to make up a quiz, test, or lab.**

Assessments

1. **Completion Work-** Always 5-10 completion points, and will either be completed during class time or at home.
2. **Homework-** This assignment will be completed either in class or at home and will be done individually or in a small group. This will be graded on correctness.
3. **Quizzes-** Given periodically throughout a chapter to assess student progress. Expect 1-3 quizzes per chapter.
4. **Chapter Tests-** Assessment of the entire chapter.

5. **Lab Reports-** Two types:
- a. Informal Lab Reports Due 2 class periods after the completion of the lab.
 - b. Formal Lab Written Lab Reports Due 5 class periods after the completion of the lab.
 - i. Students will write formal lab reports **INDIVIDUALLY** unless stated otherwise.

Online Resources

Google Classroom- Various assignments, Zoom Links, and virtual simulations will be posted on google classroom daily! So be sure to stay up to date!

Zoom- This class will have its very own Zoom Link where students will be able to join regularly!

Absences

1. **Late/ Tardy-** Students who show up more than 1 minute after the bell **WITHOUT AN EXCUSE** will be marked “tardy”. After being marked tardy 3 times, students will obtain a discipline referral.
2. **Flexible Instructional Days (FID)-** Students will be required to log onto Zoom during any flexible instructional days.
 - i. If a student is absent during an FID Zoom Meeting, it will be treated as absence, and missing work must be made up accordingly.
3. **Sick/ Excused-** It is the students’ responsibility to obtain their missing work.
 - a. **Homework/Classwork** Students have 1 extra day to turn in work they missed.
 - i. If the student received work before being absent, it is due upon their return.
 - ii. If the student missed more than 3 days of school, they will be given 5 days to complete their missing work.
 - b. **Quizzes/Tests** Students have 1 extra day to turn in work they missed.
 - i. If a quiz/ test is not made up within the 1 extra day, then the student will receive a zero.
 - ii. If the student missed more than 3 days of school, they will be given 5 days to complete their missing quizzes/tests. If the assessment(s) are not made up then the student will receive a zero.

- c. **Labs** There will be **ONE** lab make-up day per lab. It is the student's responsibility to find time to make up the lab either during a study hall, tutorial, after school, or during class.
 - i. Failure to make up the lab will result in an alternative assignment.

Classroom Procedures

The following procedures **WILL** be followed every single day!

1. **Respect**- The only way to get respect is to give respect. Treat everyone how you would like to be treated.
2. **Be prepared**- Always bring required materials, pee before class, and have a positive attitude.
3. **No complaining**- Everyone is entitled to a bad day, but no one wants to work with a negative neutron! Whenever you walk into the classroom try to put your current issues behind you, and if you cannot do that then talk to me. I am always ready for a good vent session!
4. **No Cellphones**- If cell phones are being used without permission they will be taken immediately. If you are having a family emergency, talk to me before class!
5. **Computers**- Everyone has their own computer, but if they are not being used for anything else other than class, they will be taken.
6. **No one is allowed back in the lab without permission.**
7. **Eating/ Drinking**- This is a privilege not a right, you are allowed to eat/ drink in the classroom. However, clean up your own mess! Failure to do so will result in the class losing this privilege.
8. **Cheating**- If you are caught cheating or plagiarizing, you will automatically receive a 0 for that assignment. If you are caught cheating a 2nd time, not only will you receive a 0, but a referral will also be made.

Failure to follow these rules or procedures will result in the following consequences.

1st Offense -Verbal Warning

2nd Offense – 2nd Verbal Warning and documentation placed in students class file.

3rd Offense – Office Referral and documentation placed in students class file.

4th Offense - Phone call home/ request for conference.

Contacting Mr. Krupa

Students: If you have any questions in regards to homework, tests, quizzes, or labs please send me an email. I will respond as quickly as I can!

Parents: If you ever have any questions about your child's grade or have a concern, also please send me an email, and I will respond as quickly as I can!

Extra Help

If you ever feel like you need extra help do not hesitate to reach out! Below is a list of times that I will be able to help you with anything!

Mr. Krupa's Availability

Prep period
Study Hall
Lunch

Other Resources

Tutorial after school

You are expected to adhere by all other policies and procedures as outlined in the student handbook/agenda.

NOTE: I CAN CHANGE THESE CONSEQUENCES AT ANYTIME, BASED ON CIRCUMSTANCES.

Course Outline (By Unit)

Course Outline	PA State Standards	Timeline (weeks)
Unit 1: Scientific Inquiry <ul style="list-style-type: none">- Observation vs. Inference- How to use the Scientific Method- Experiment Writing- Scientific Fact, Theory, and Laws- Basic Graphing/ Data Interpretation Skills	3.1.B.A9. 3.1.B.B6. 3.1.B.C4. 3.2.B.A6. 3.2.B.B7. 3.3.B.A8. 3.3.B.D3. 3.1.8.A9. 3.1.8.B6. 3.1.8.C4. 3.2.8.A6. 3.2.8.B7. 3.3.8.A8. 3.3.8.D3	3 Weeks
Unit 2: Introduction to Chemistry <ul style="list-style-type: none">- Matter- Atomic Theory- Atom vs. Element, vs. Compound- Isotopes- Subatomic Particles- Bohr Model of the Atom- Light- Quantum Model of the Atom- Particle Wave Duality- Chemical vs. Physical Properties- Chemical vs. Physical	3.2.10.A1. 3.2.C.A1. 3.2.C.A2. 3.2.12.A2. 3.2.C.A3. 3.2.C.A4. 3.2.C.A5.	4 Weeks

<ul style="list-style-type: none"> Changes - States of Matter - Intermolecular Forces - Phase Changes/ Phase Change Diagrams - The Periodic Table 		
<p>Unit 3: Chemical Bonding and Polarity</p> <ul style="list-style-type: none"> - Lewis Dot Structures - Ions/ Ionic Bonding - Covalent Bonding - Drawing Molecular Compounds - Naming Ionic and Covalent Compounds - Properties of Ionic and Covalent Compounds - Metallic Bonding - Polarity and Electronegativity - Polar Covalent vs. Nonpolar Covalent - Molecular Polarity - Intermolecular Forces - Solubility - Homogeneous vs. Heterogeneous Mixtures 	<p>3.2.C.A1. 3.2.10.A1 3.2.10.A2.</p>	<p>3 Weeks</p>
<p>Unit 4: Organic Chemistry</p> <ul style="list-style-type: none"> - Meaning of Organic - Versatility of Carbon - Applications of Organic Chemistry - Hydrocarbons (Line Structures) - Structural Isomers - Saturated vs. Unsaturated Hydrocarbons - Functional Groups - Polymers 	<p>3.1.B.A7 3.2.C.A2</p>	<p>3 Weeks</p>
<p>Unit 5: Biochemistry</p> <ul style="list-style-type: none"> - Organic Chemistry Review - Properties, Functions, and Monomer Unit Identification of Macromolecules <ul style="list-style-type: none"> - Carbohydrates - Lipids - Proteins - Nucleic Acids - Formation of Macromolecules via Dehydration Synthesis - Breaking of Polymers via Hydrolysis - Function and purpose of enzymes 	<p>BIO.A.2.2.1 BIO.A.2.2.2 BIO.A.2.2.3</p>	<p>4 Weeks</p>
<p>Unit 6: Introduction to</p>	<p>BIO.A.1.1.1 BIO.A.1.2.1</p>	<p>3 Weeks</p>

Biology <ul style="list-style-type: none"> - History/ different types of microscopes - How to create/ view a slide - Eight Characteristics of Life - Cell Theory - Prokaryotic vs. Eukaryotic - Organelles 	BIO.A.1.2.2	
Unit 7: Cell Transport <ul style="list-style-type: none"> - Chemical make-up of the Plasma Membrane - Function of the Plasma Membrane - Cell Wall vs. Plasma Membrane - Passive vs. Active Transport - Hypotonic, Isotonic, Hypertonic - Active Transport: Endocytosis vs. Exocytosis 	BIO.A.4.1.1 BIO.A.4.1.2 BIO.A.4.2.1	3 Weeks
Unit 8: Cell Division <ul style="list-style-type: none"> - Cell Cycle - Interphase - DNA Replication (Mitosis) - Cytokinesis - Meiosis - Genetic Variation - The Fertilization Process 	BIO.B.1.1.1 BIO.B.1.1.2 BIO.B.1.2.1	4 Weeks
Unit 9: Evolution <ul style="list-style-type: none"> - Theories of Evolution (Species Modification vs. Descent with Modification) - Natural Selection - Evidence for Evolution - Mechanisms for Evolution - Reproduction 	BIO.B.3.1.1 BIO.B.3.1.2 BIO.B.3.1.3 BIO.B.3.2.1 BIO.B.3.3.1	4 Weeks
Unit 10: Ecology <ul style="list-style-type: none"> - Levels of Ecological Organizations - Biotic vs. Abiotic Factors - Different Biotic Interactions - Energy Flow - Food Chain - Food Web - Ecological Cycles 	BIO.B.4.1.1 BIO.B.4.1.2 BIO.B.4.2.1 BIO.B.4.2.2 BIO.B.4.2.3	3 Weeks

Link to Science Standards for Pennsylvania

<https://www.pdesas.org/Standard/View>

***NOTE – This schedule will be subject to change. It is to be used as a guide for the course.**

Mr. Krupa's Lab Rules

The following are a basic guide to staying safe in the lab, and must be followed at all times. Failure to follow the rules outlined here and on the FLINN Scientific Safety Sheet will result in a loss of lab privileges.

1. On the day of a lab, do not wear the following:
 - a. Open toed shoes
 - b. Shorts,
 - c. Bracelets,
 - d. Rings,
 - e. Necklaces
 - f. Clothes that are baggy.

Failure to do so will result in no lab participation. Unless stated otherwise by Mr. Krupa. (Not all labs will be dangerous.)

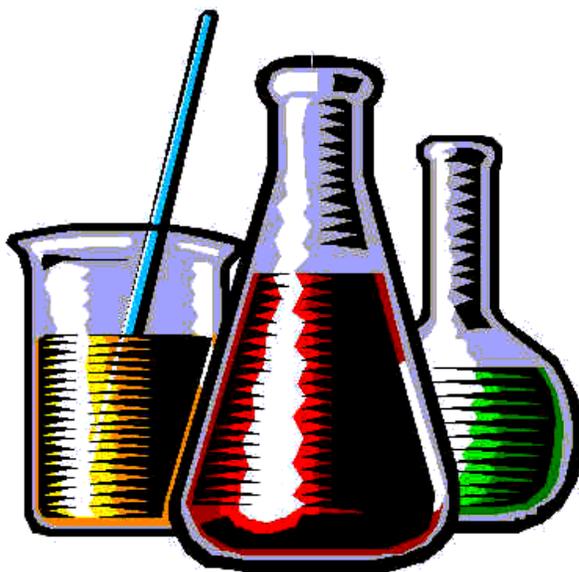
2. If you have long hair, tie it back into a ponytail.
3. Do not go into the lab without permission.
4. No goofing off in the lab.
5. Always wear gloves and safety goggles when working with chemicals. If you get chemicals in your eyes clean them in the eye wash station for 10 minutes.
6. Do not touch the chemicals without permission.
7. Follow the lab procedure exactly; unless stated otherwise. If you have any questions please ask.
8. If you break a piece of glassware, please sweep it up and place it in the broken glass box. **DO NOT TOUCH BROKEN GLASS WITH YOUR BARE HANDS!!!!**
9. Only use the lab equipment that is stated in the procedure, and use it correctly.
10. Do not leave a lit Bunsen Burner, hot plate, chemicals, or experiment unattended.
11. If you spill anything please alert Mr. Krupa.
12. If you spill a large amount of **HAZARDOUS** chemicals on yourself, make your way to the safety shower and pull the lever. Allow the water to run over you for 10 minutes.

13. If you catch on fire, yell FIRE, and STOP, DROP, and ROLL. If the fire is too intense, pull the shower cord. Due to the fact we are in a lab please stay calm and know your surroundings. If you roll into dangerous chemicals, the situation may become worse.
14. Clean up after yourself by disposing of chemicals properly, and cleaning the glassware. Dispose of chemicals in their assigned area.
15. When working with chemicals, always wear a lab apron.
16. Report damaged lab equipment to Mr. Krupa.

Failure to follow all of the above rules, and the FLINN Safety Sheet will result in your lab privileges be taken away.

- **1st warning** Verbal
- **2nd warning** Students will receive a 0 for the lab and lose lab privileges until the completion of the next lab experiment.
 - o Students will receive an alternative assignment
- **3rd warning** Students lose lab privileges for the rest of the school year.

Please Note: These circumstances are extreme due to the fact that the chemicals we will be using could possibly be dangerous. It is of utmost importance to me to keep not only your student, but all of my students safe.



By signing the document below, you have read and agree to all of the rules and guidelines laid out in the syllabus and general lab safety guidelines, and agree to follow them accordingly.

**Parent
Signature** _____

**Student
Signature** _____

**Teacher
Signature** _____