



Science Department

Palatine High School

Dr. Garrison

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Science Requirement



- All students take Freshman Biology
- To graduate:
 - 2 years of Science
 - 1 year Biological Science
 - 1 year Physical Science
- For college:
 - 3 years, usually 4, that also includes Biology, Chemistry, Physics

Placement Rubric



Course Code	S131	S137	S138
Course Title	Biology – foundational level	Biology – regular level	Biology – accelerated/honors level
Student Traits	<ul style="list-style-type: none"> • cannot properly use writing skills to make a claim to explain a concept • typically performs below standards on assessments • struggles with basic math concepts related to graphing or using a formula • lacks critical thinking skills needed to overcome academic challenges • needs major assistance to solve problems 	<ul style="list-style-type: none"> • can use writing skills to make a claim, and provide evidence, but cannot make any connection between the claim and support • contributes to class & group discussions, but may need teacher prompting to participate • typically meets standards on assessments • can read a graph and use basic formulas to solve for problems • needs encouragement to attempt a challenging problem 	<ul style="list-style-type: none"> • can use writing skills to make a scientific claim, provide evidence to support their claim, and make connections between claim and support • consistently exceeds standards on assessments • understands and draws graphs • can use higher order formulas to solve problems • scientifically minded • enjoys challenging and complex problems



What Comes After Biology

- Usual Regular Level sequence:
 - Biology → Earth Science → Chemistry → Physics
- Usual Accelerated level sequence
 - Biology → Chemistry → AP Physics → AP Chemistry or AP Biology
- Usual Foundation Level sequence
 - Biology → Physical Science → Applied Science → Chemistry
- There are many variations to the above sequences!
- Students can move between levels to find appropriate placement
- **Goal:** find placement that is most challenging and engaging

Special Interest, AP, Dual Credit Courses



- **Special Interest Courses**

- Environmental Studies
- Forensics
- Astronomy
- Advanced Chemistry &
Applications in Advanced Chemistry

- **Advanced Placement Courses**

- AP Environmental Science
- AP Physics 1, AP Physics 1 & 2
- AP Physics C
- AP Chemistry
- AP Biology

- **Dual Credit Courses**

- Biology 2
- Anatomy & Physiology
- Health Career Exploration and Medical Terminology
- Certified Nursing Assistant

Science and Career Related Activities

- HOSA
- Science Olympiad





- Competitive Activity with State Tournament
- Geared towards future health professionals
- If you have an interest in any health care field, then HOSA is for you!
- Sponsored by Mrs. McCloud

Science Olympiad



- What is Science Olympiad?
 - It is like a track meet for the mind.
 - A team competition focusing on science
 - A team of 15 students compete in 23 different events
 - Each person typically competes in 2 or 3 events
- Coached by:
 - Dr. Garrison, Science Department
 - Ms. Friel, Science Department
 - Mr. Heitz, Science Department
 - Mr. Larson, Applied Tech. Department
 - Mr. Rauen, Science Department



Science Olympiad



23 Events

Life, Personal & Social Science

Anatomy & Physiology, Ornithology,
Designer Genes, Water Quality,
Disease Detectives

Earth & Space Science

Astronomy, Dynamic Planet, Fossils,
GeoLogic Mapping

Physical Science & Chemistry

Chemistry Lab, Circuit Lab, Forensics,
Protein Modeling, Sounds of Music

Technology & Engineering

Boomilever, Detector Building,
Machines, Ping Pong Parachute,
Gravity Vehicle, Wright Stuff

Inquiry & Nature of Science

Codebusters, Write It Do It,
Experimental Design



Science Olympiad



- Sci Oly Season- All year long

- 4 Invitationals

November

December

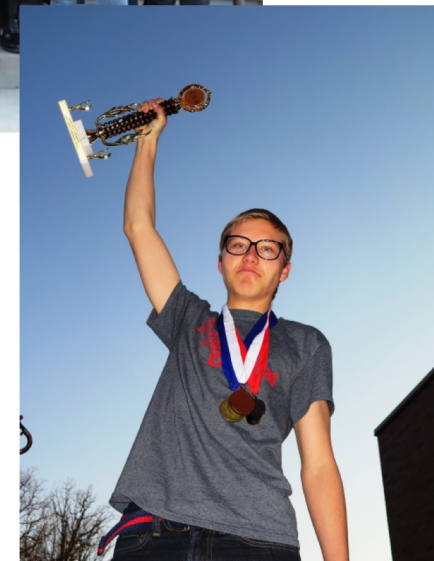
January

February

- Regional in March

- State in April

- Have participated in the
State Tournament 10 times in a row!



Questions?



- Freshman Biology course?
- Usual sequence?
- Electives?
- Advanced Placement courses?
- Dual Credit Courses?
- HOSA?
- Science Olympiad?