

BHS Science



OUR SEQUENCE
OUR VISION

Our Vision



- All students will learn from their mistakes, and will be encouraged by their mistakes.
- All students will have every opportunity to learn at the highest level.
- All students will be treated as a future scientist, and will be explicitly shown examples of the diversity of past and present scientists and engineers.

Our Sequence



- **Why is Physics First?**
 - Best taught to younger students with fewer mathematical obstacles
 - We introduce students to the beauty of estimation
 - Science is not a definitive series of facts, and we are having students design their own experiments
 - Physics is more concrete than chemistry and biology
- **How do we accomplish this?**
 - We let technology do any Calculus for us
 - Fun not 'Formulas'
 - More projects
 - Start with energy and waves, end with kinematics

Our Sequence



- Chemistry in 10th grade
 - Building on concepts of...
 - ✦ Force and Motion
 - ✦ Electrostatic Interactions
 - ✦ Data analysis
 - ✦ Energy
 - Leading to more complicated problem solving
 - Greater level of abstract thought and spatial reasoning
 - Include more topics of social and environmental impact

Our Sequence



- Biology in 11th Grade
 - Building on the major concepts of...
 - ✦ Chemical bonding
 - ✦ Energy
 - We are able to teach with more accuracy and rigor
 - We are able to teach with more interdisciplinary topics
 - ✦ Bio ethics
 - ✦ Climate Change
 - Students are ready for the most abstract concepts
 - More Biochemical discoveries every day

Our Sequence



- Optional Courses

- All AP Subjects

- ✦ Physics 1 & 2
 - ✦ Physics C Mechanics and E&M
 - ✦ Environmental Science
 - ✦ Chemistry
 - ✦ Biology

- Engineering

- ✦ Engineering by Design
 - ✦ Engineering Innovation & Design



- Astronomy

- Anatomy and Physiology

- Drawing for Understanding Field Science



- Advanced Topics in Biology

- Body/Mind Honor

- Forensics

- Genetics

- Marine Biology

- Environmental Science & Society

Physics I



- ***Physics I*** is a rigorous course designed for students who want a solid foundation in physics. The course is designed for students interested in science.
- Students will have opportunities to go in more depth with optional extensions.
- Students who have been successful in Physics I are well prepared to take *AP Physics* in their senior year, and may become science majors in college.

Physics I Honor



- ***Physics I Honor*** covers the same content as *Physics I* but with more mathematical applications.

BHS Science Website



- Please view our video made by Women In STEM club member Clarice Pertel '2018
 - 8th Grade Parents
 - Twitter feed for other opportunities
 - Course information and ANOTHER WiSTEM video

<http://bhs.brookline.k12.ma.us/science.html>