



Brookline High School

Science Department
115 Greenough Street
Brookline, MA 02445
(617) 713-5365

Chemistry Course Selection

Physics teachers will be meeting with students, with the help of their fellow Chemistry teachers, to help them understand the differences between the various Chemistry courses. They will also give one-on-one recommendations when appropriate. Below are Chemistry teachers' words on how to choose a course:

Chemistry 1 is a college preparatory chemistry course in which students learn material through direct instruction and activities that are the foundation of learning. Students learn about a wide range of topics within Chemistry; while many of these topics overlap with those on *Chemistry I Honor*, *Chemistry I* does not delve into the details of the same topics, or with as much algebra as other courses.

Homework in *Chemistry I* consists of both guided reading, with key questions, and independent reading-and-note-taking. Homework involves analyzing lab results, as well as reviewing content taught in the classroom.

The students in *Chemistry I* often need more structure, or have not yet completed *Algebra 1*.

Chemistry I Honor is a fast-paced, intense introductory Chemistry course based around lecture, discussions, and laboratory experiments across a wide-range of content.

Homework in *Chemistry I Honor* requires strong quantitative skills, and consists of reading and problem solving that supplement and guide their class work, as well as completing questions related to lab experiments.

The students in *Chemistry I Honor* are comfortable learning independently through reading, are well organized, and are ready for a challenge. Students interested in eventually enrolling in *AP Chemistry* should consider *Chemistry I Honor* as the best preparation since the content areas are covered in this course, slightly more than in the other Chemistry courses. Further, *Chemistry I Honor* is the introductory course that most prepares students for the SAT II Subject Test in Chemistry. However, to be prepared fully for this exam, students need to independently review and learn some additional material, and therefore are encouraged to take *AP Chemistry* if this is their goal.

SWS Students have the option of taking an SWS section of *Chemistry I Honor*, which is the same course, simply populated with SWS students.

Chemistry 1 LBC Honor is an honors level inquiry-based introductory Chemistry course. LBC stands for "Living By Chemistry," a text that inspired the name. Students learn through a mix of lecture and collaboration, but the bulk of the learning experience occurs through exploration. Students should be comfortable working through problems and puzzles that they don't immediately know how to solve. Students have opportunities to ask questions among peers and the teacher, make scientific observations, collected evidence, and formulate scientific hypotheses and explanations. In each lesson, students discover concepts and communicate ideas. Formal definitions and formulas are frequently introduced *after* students have explored, scrutinized, and developed a concept, providing for more effective instruction.

Homework in *Chemistry LBC Honor* involves reading, writing responses to class activities, solving problems and answering follow-up questions from experiments.

The students in *Chemistry LBC Honor* are active learners; they love to learn by *doing*. Students work in groups, as collaboration is a large piece of the learning experience. Because of this, any student who is not comfortable working with peers should not enroll in *Chemistry LBC Honor*. Also, students must be enrolled in *Algebra 2* or *IMP 2*.

Other pathways

- Summer school is not the best option for students hoping to accelerate, and must consult me before considering any summer school course.
- Simultaneously taking another science course as a 10th grade student is not necessary, and it would not accelerate a student who is very interested in science. This is because many students have successfully taken optional courses concurrently with Biology in 11th grade.

If you have any questions, feel free to contact me.

Sincerely,

Ed Wisner

Curriculum Coordinator for Science