

Jefferson Township Public Schools Science Department

Will the science sequence at JTHS prepare my child for college?

Overview

In short, yes! The required sequence of courses in both the college preparatory and honors levels will not only meet New Jersey graduation requirements, but will satisfy college admissions requirements. Science sequence options can be viewed on next page. Please refer to the *Program of Studies* for more specific guidelines based on the tier of college/university you are considering.





Beyond meeting requirements, our science program offers students an inquiry based approach where they will be exposed to content and skills. That knowledge will serve them well as they transition to the rigors of higher education. While all courses aim to provide challenging coursework, those students who are particularly driven are encouraged to take advantage of our numerous Advanced Placement (AP) course offerings. In science, they are:





AP Biology

AP Chemistry

AP Environmental Science

AP Physics 1

AP Physics 2

Additionally, we offer electives that will pique your child's interest and allow them to continue their journey of science discovery. They are:

Anatomy and Physiology Honors

Astronomy CP

Environmental Science CP

Forensic Science CP

Geophysical Science Honors

Zoology CP

Time and time again, returning college students who have gone on to major in science comment on how well they were prepared by the faculty and program at JTHS. We are proud of the work we do and continue to expand our offerings and methods. Best wishes to you during your high school career!

Below, you will find some frequently asked questions and their answers.

- Can students "double-up" in science?
- They can. Frequently students double up in their science courses during their junior and senior years. Our most ambitious and talented students have doubled up as sophomores, taking Honors Chemistry and AP Biology.
- Does my child need to take AP science courses?
- They do not need AP science courses to graduate, but top tier colleges and universities look favorably upon a rigorous transcript. Also, if they pass the AP exam for that course, they can earn college credit. Not all colleges will accept AP exam scores.
- 3. What course sequence should my child take if they want to go into medicine? Engineering?
- While there is no one correct answer, a sample sequence is Biology Honors—Chemistry Honors—AP Physics 1—AP Physics 2/AP Biology. Should the students wish to double up, they might add AP Biology as a sophomore, AP Chemistry as a junior and Anatomy and Physiology as a senior.
- 4. Are there other options besides approved courses for my child?
- Yes. At JTHS we have an Independent Study option which allows students to explore areas that we do not offer in any course. They have a faculty mentor and chart their own path for learning. Past students have explored topics such as nursing, bio fuel production, pathology, marine biology.

NEXT GENERATION SCIENCE STANDARDS

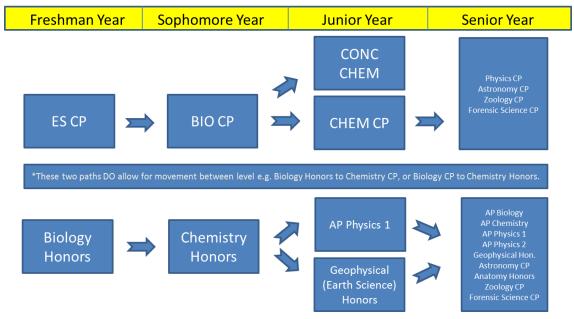


Jefferson Township Public Schools Science Department Program Overview

Parents and Students,

At JTHS we are proud to offer a challenging science program with numerous options, and one that offers a balanced view of science as both a body of knowledge and a way of thinking. Currently, we are actively revising our methodology to include a much greater emphasis on science practices and the larger connecting themes found therein. Students will be challenged to make claims, argue from evidence and communicate their findings and questions. Although our methods evolve, our commitment to excellence stays the same. Below, please find our program sequence and some highlights. If you have any questions at all, please do not hesitate to

> Yours In Education, Chris Hiben, K-12 Supervisor of Science



Program Highlights Students are not locked into one path. They can move between CP and honors **Movement Between CP** 1. depending on their performance. For students to move from a CP level course to an and Honors Levels honors level, they need to maintain a 90 average. **Authentic Learning** Students emulate the work of scientists as they ask questions, plan investigations, 2. Through the Exploration analyze data, argue from evidence, develop models and construct explanations for observable natural phenomena. of Phenomena Students use Vernier and Pasco probe-ware and interfaces as they gather data from experiments. This adds additional quantitative aspects to science exploration, and 3. Infusion of Technology prepares students for work they will do in higher education. There are also dedicated science laptops in each classroom for research and the use of simulations, tutorials and presentation creation. Students have many upper level electives and AP courses to choose from. Generally, 4. Options

electives are taken in grades 11 and 12. With so many choices, taking a fourth year of science, although not required, is a common choice for the majority of our students. It is testament to our offerings, but more importantly our faculty.