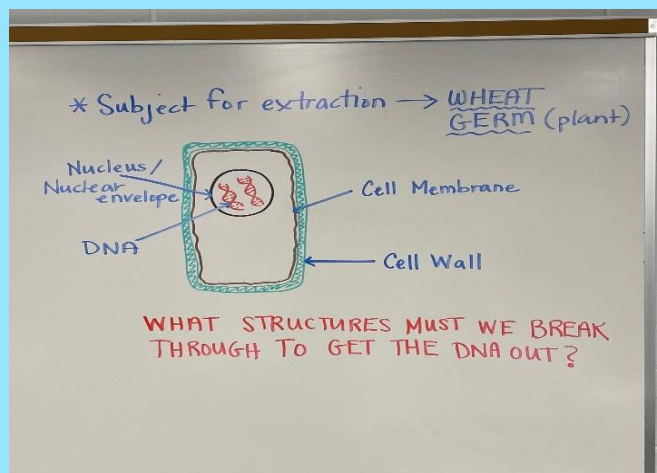


# Pathway: Biotechnology Research and Health Science

## Career Cluster: Science, Technology, Engineering, Arts, and Mathematics

Recommended Course Plan	Required Core Science and Mathematics Courses	Biotechnology and Health Pathway	Occupations Related to this Pathway
<p>4 years English Language Arts 4 years Social Studies 4 years Science 4 years Mathematics 4 years World Languages 4 years Physical Education/Health 1 year Visual/Media/Performing Arts 1 year Business/Practical Arts 1 Semester Financial Literacy Freshman Advisory</p> <p>Note: The career pathways are suggested courses based on career interest. Students are not locked into one pathway and may select any course as long as they have met all co-requisites and prerequisites.</p>	<p>Biology Algebra 1/Geometry/Algebra 2</p> <p style="text-align: center;">↓</p> <p>Chemistry Geometry/Algebra2/Pre-calc</p> <p style="text-align: center;">↓</p> <p>Physics Algebra 2/Pre-calc/Hon Calculus</p>	<p>(9,10,11) Computer Programming &amp; Design Mindfulness, Resilience and Wellness Technology and Engineering Principles Honors Community Problem Solving Honors Future Problem Solving</p> <p style="text-align: center;">↓</p> <p>(10,11,12) Computer Modeling T<sup>3</sup> Innovations and Inventions</p> <p style="text-align: center;">↓</p> <p>(11,12) Anatomy and Physiology AP Biology AP Calculus AB or BC AP Chemistry AP Psychology or Practical Psychology AP Statistics Biotech Engineering Environmental Science Honors Calculus Honors STEAM Design and Research Honors Sociology Statistics</p> <p style="text-align: center;">↓</p> <p>(12) Forensic Science/Biotech Engineering Honors STEAM Capstone: Research/Internship</p>	<p>Animal Services Technician, Animal Services Technologist, Data Entry Clerk, Lab Assistant-Genetics Lab Technician, Maintenance and Instrument Technician, Process Technician, Quality Assurance Technician, Quality Control Technician, Biochemist, Bioinformatics Associate, Bioinformatics Scientist, Bioinformatics Specialist, Biomedical Chemist, Biostatistician, Cell Biologist, Clinical Trials Research Associate, Clinical Trials Research Coordinator, Geneticist, Microbiologist, Molecular Biologist, Pharmaceutical Scientist, Regulatory Affairs Specialist, Research Assistant, Research Associate, Research Scientist, Toxicologist, Applied Researcher, Epidemiologist, Ethicist, Health Care Administrator, Health Educator, Medical Librarian/Cybrarian, Public Health Educator, Risk Manager, Utilization Manager</p>



## Career Pathway: Biotechnology Research and Health Science

### Authentic Real-life Experiences

Mahwah High School offers a variety of co-curricular opportunities to students to expand their knowledge and understanding outside of the academic classroom. Biotechnology Research and Health Science Pathway students will have the opportunity to participate in unique project-based learning opportunities that develop problem solving, technical, and teamwork skills.

#### Co-curricular Opportunities

##### **Academic Decathlon**

The Academic Decathlon® is a team competition wherein students match their intellects with students from other schools. Students are tested in ten categories: Art, Economics, Essay, Interview, Language and Literature, Mathematics, Music, Science, Social Science, and Speech.

##### **NJ Bergen County Mathematics League**

The Mathematics League promotes the enjoyment and study of mathematics by organizing contests. Math contests give students an educationally enriching opportunity to participate in an academically oriented activity and to gain recognition for mathematical achievement. Our main goal is educational: To promote the enjoyment and study of mathematics by organizing contests.

##### **Environmental Club**

The Environmental Club works together to improve the environment. Students raise money and contribute to environmental charities and clean up.

##### **Future Medical Professionals**

FMP is an interactive club dedicated to helping students pursue their interests in health care and joining the medical field in their future. We invite diverse speakers across the medical field, such as nurses and private physicians, to provide members with firsthand experience and advice.

##### **Girls Excelling in Math and Science**

Girls Excelling in Math and Science (GEMS) aims to encourage girls in STEAM environments, including listening to accomplished female guest speakers from various STEAM-related fields, learning more about women's studies, and exploring different areas of STEAM through hands-on activities.

##### **Science Club and NJ Science League**

The NJ Science League offers interschool competition in Biology, Chemistry, Physics, Earth Science, and Environmental Science. Tests are usually held after school on the second Thursday of the months of January, February, March, and April at the different school campuses.