

Blind Brook-Rye UFSD
Science Research Program
THE THREE YEAR SPAN OF THE SCIENCE RESEARCH COURSE

The student's actual beginning in the Science Research course occurs during the **freshman/sophomore summer**. It is then that the topic is chosen and ten general articles found, read and summarized. During the freshman/sophomore summer and year, the student must learn search techniques for finding literature, time management, and the importance of detailed record-keeping.

During the **sophomore year**, the student must identify possible mentors and their locations, and contact as many as possible to ask questions about their work. The sophomore student has to plan a project, under the guidance of a mentor, and secure a place to do his/her research. The research student concentrates throughout the year on learning a number of research and associated skills. First and foremost, the student learns that research always follows the same basic pattern of progress. S/he does this by extensive reading and by presenting papers written by researchers in the chosen field. These presentations must always contain the same basic elements of a review (to elucidate what has gone on before and prevent repetition), a hypothesis or statement of a problem to be addressed, a methodology, a presentation of data, with graphics, a discussion of the data, and a conclusion. Students are assessed by their peers as well as by their teacher in their presentations.

In the **sophomore/junior summer**, the student is expected to work on the research project. While this is always influenced by family expectations and time constraints, a minimum of 35 hours (90 hours for college credit) must be done in this summer.

The **junior year** is the year of intense research activity. This is when most of the data collection will happen. The hypothesis is continually refined and public presentations are made of the work being done. Reading continues to keep abreast of new findings in the chosen field. Some competitions, such as the JSHS, WESEF and the ISEF may be entered.

In the **junior/senior summer** all data collection should be finished. This is the time to finish analyzing data collected and start writing the research paper.

During their **senior year**, the research student should finish his/her work. Student/director meetings continue through this year. The research paper is written based on the format used in the journal articles the student has been reading. During this year, the student must present the final research paper to the class, and to the school in general. The student must also enter several competitions open to her/him.