

## **8<sup>th</sup> GRADE SUMMER SCIENCE REQUIREMENTS**

Each 8<sup>th</sup> grade student is required to complete a science project during the first semester of the school year, as part of the science curriculum. Work on science projects begins over the summer and takes the place of a summer reading requirement for science.

Each incoming 8<sup>th</sup> grade student is assigned to work with a specific 8<sup>th</sup> grade science teacher, who oversees his or her progress on the science project throughout the summer and first semester. Students are assigned to either Mrs. Ellen Kaffenes (who teaches 8<sup>th</sup> grade Introductory Chemistry) or Mrs. Dorina Manolache (who teaches 8<sup>th</sup> grade Introductory Physics).

8<sup>th</sup> grade students are encouraged to refine their 7<sup>th</sup> grade science projects (adding a 2nd independent variable or some other form of complexity, increasing sample size/number of trials, etc.), rather than to begin a new project. There is a significant amount of added work if a new project is selected.

All students must keep hardcopies of all exchanged emails, instructions, and work completed over the summer. These materials must be kept in a small, 3-ring binder specially designated for the science project. This will be collected and reviewed once school begins in the fall. Students who submit summer assignments on time, and whose work addresses teacher feedback and reflects the appropriate amount of effort, will receive full credit.

New 8<sup>th</sup> grade students to Aquinas Academy must contact the school office to request an assigned teacher for summer work. New students may not begin work on science projects until they have been contacted by an assigned teacher and given an outline of project requirements.

After science projects have been completed during the first semester, all 8<sup>th</sup> grade students are invited to consider participating in the Pennsylvania Junior Academy of Science (PJAS) competition, which takes place during the second semester.

Summer Due Dates for 8<sup>th</sup> Grade Science Projects (a total of 30 points) are listed below. Each deliverable must be submitted to Mrs. Kaffenes (at [kaffenes@aquinas.pvt.k12.pa.us](mailto:kaffenes@aquinas.pvt.k12.pa.us)) or Mrs. Manolache (at [manolache@aquinas.pvt.k12.pa.us](mailto:manolache@aquinas.pvt.k12.pa.us)) via email as a separate document:

Due Date	Deliverable	Description
June 30, 2018	Continuation Plan (5 pts)	A short paragraph, stating the purpose of the science project, the independent and dependent variables, and exactly what will be measured. Projects must be appropriate for an 8 <sup>th</sup> grade level in the PJAS competition.
July 31, 2018	Annotated Bibliography (5 pts)	A list of at least four reliable sources, in MLA format, used to support the science project. <ul style="list-style-type: none"> <li>An annotation is a few sentences, written below each citation in the bibliography, summarizing the source and/or describing how and why it is relevant to the project.</li> <li>Sources must be RELIABLE (no .com sites, blogs, etc.).</li> </ul>
July 31, 2018	Background Research (10 pts)	A summary of the background information supporting the project. <ul style="list-style-type: none"> <li>This should be written in paragraph format and summarized in the student's OWN WORDS!</li> <li>Background information should explain important science concepts or techniques used, previous research that supports the hypothesis or conclusion of the project, etc.</li> </ul>
July 31, 2018	Hypothesis (5 pts)	A brief statement summarizing the expected outcome of the experiment. It must be concise, reasonable, and testable.
July 31, 2018	Materials and Methods (5 pts)	A high-level description of how the experiment will be conducted. It should contain three parts: <ul style="list-style-type: none"> <li>A bullet point list of materials needed.</li> <li>A numbered list of basic steps to conduct the experiment.</li> <li>A list of the independent/dependent variables to be used.</li> </ul>