



**THREE VILLAGE
CENTRAL SCHOOL DISTRICT**

The mission of the Three Village Central School District, in concert with its families and community, is to provide an educational environment which will enable each student to achieve a high level of academic proficiency and to become a well-rounded individual who is an involved, responsible citizen.

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Dear InSTAR® All Stars,

Welcome to senior year InSTAR®-III "COVID style" and congratulations! This past summer you no doubt worked long hours completing your independent research project. Not only did this provide you with a wealth of life experience, you will be able to submit your work to various science competitions. The role of our class will be to help you organize your data, write your paper, create your poster and present your research. If you are still collecting data, no worries! In the past it has not been uncommon to have seniors still working to finalize their results well after school has started.

InSTAR®-III meets every day in the first semester, and then on Thursdays after school during the second semester. *Attendance is mandatory.* If you need to leave early or miss class, it will be your responsibility to see me, or if you are a remote learner, to message me. You must check in with me to receive daily classwork credit.

Submission of your research manuscript to the **2021 Regeneron Science Talent Search** by **Thursday, November 12, 2020 8:00 PM EST** is *required* for students in the InSTAR® program. Regeneron only accepts *online submission* of the required entry forms, essays, and research paper. The application is divided into TASKS that we will work through together according to a *Timeline* which will be provided by the end of the first week of classes. The online application and the entire *2021 Regeneron STS Student Instruction Packet* can be accessed at <https://sciencetalentsearch.fluidreview.com>. Each of these guidelines contains a wealth of important information, so copies will be posted on our Google Classroom for easy access. Another general reference guide '*Elements of a Research Report*' has been included with this overview. If you haven't even thought about it yet, this will help you begin to outline your manuscript.

In addition to your research paper, all fairs require *online registration* and submission of additional materials in a timely fashion. **The competition due dates are not negotiable.** You will also compete to submit your research project to the **Long Island Science & Engineering Fair** during the second quarter, and if selected, you will attend the competition in early February, 2021. LISEF is the regional fair that feeds into ISEF, the International Science & Engineering Fair. More information on all of the competitions open to seniors will be covered in class.

I look forward to seeing you all tomorrow ~ make sure you eat your *Wheaties*,
D.K.

Dr. Marnie Kula, *Coordinator*

Elements of a Research Paper

The proper write-up of independent research is one of the most important obligations of an investigative scientist. Regardless of how valuable your work may be, the knowledge gained will be useless if you do not communicate your findings to the scientific community promptly, clearly, and in a standardized format. The specific details of the format may vary slightly from journal to journal (or science fair to science fair); however, the general layout for a publication-quality research paper is very consistent and includes the following sections:

1. **Abstract (The Short Story version)** of the work: a **brief** summary of your project, and includes information from each of the sections listed below. Usually about half a page in length and usually written LAST! Check character count requirements for Regeneron.
2. **Introduction (Why I did it)**: Provides the background information and motivation for the project. State the problem you investigated, and your hypothesis: why the research topic is of interest, what you and others have done previously, and why you did the current investigation. Generally, it is not desirable to explicitly state: "My hypothesis is..." Finally, include one or two sentences describing your conclusions, if appropriate.
3. **Methods (How I did it)**: This section shows how you did the research including any special tools, chemicals, solutions, equipment you used. This should allow others to **repeat** your specific experiments. Generally you do not give details about common procedures (e.g. how to boil water), but certainly explain unusual methods, list all concentrations and amounts of chemicals, special equipment, *etc.* Write this section in the *past tense*: "The solution was boiled until it turned green," *NOT* "Boil the solution until it turns green."
4. **Results (What I measured)**: Present the data you collected; including tables, figures, graphs, photos, micrographs, *etc.* **Do not** simply put tables and graphs in your paper after the Methods section. You must describe the specific experiment you did *in words*, and then refer to the figure showing the data from this work. Each figure or table *must be* numbered and have its own short description, or *legend*, of what it presents. Give enough information so the reader can understand what is shown in the figure.
5. **Discussion (How it fits in)**: Here you write about your data, mention any problems or unusual occurrences, and compare your findings to those of others. Address any discrepancies between your work and the literature and suggest future projects to continue your investigation (what you plan to do next). This is where you briefly make your final conclusions about your work and how it relates to your original hypothesis. Briefly state the most important point(s).
6. **References (Publications and literature cited in my paper)**: List all other work you discussed in any section of your paper, or any conversations you may have had with a person knowledgeable in the field (list these as *private communication*).

TIMELINE FOR THE 2021 REGENERON STS SUBMISSION

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Coming soon to a Chromebook near you: Detailed due dates TBD...Stay tuned!

What you can expect during our first week of the 2020-21 school year:

- 1) Practice, practice, practice... with the hardware and software provided to help us navigate this year of blended instruction.
- 2) A tour of the InSTAR – III Google Classroom... and a discussion of how the course will be organized this year from Quarter 1 to Quarter 4.
- 3) An overview of I-Campus... and an explanation of how you will be assessed in class this year.
- 4) A dissection of the STS Application... including a detailed analysis of how we will tackle this bear.
- 5) And, some fun... through activities designed to get us back in the groove - up on the horse - onto the **same boat** and full steam ahead into the uncharted waters of *school in the time of coronavirus*.