Exploravision Project Information

All work must have prior approval. Work will not be graded for projects that have not been approved. Parts of these projects will be turned in multiple times. Make sure all work is saved in more than one place and that all group members have access to the electronic version. Exploravision projects and science fair projects will be submitted electronically. All parts of the project must be turned in on time or result in ten points taken off for each day that it is late. If the student chooses to participate in a group project, all students in the group will receive the same grade. Checklists will be provided for every assignment and due dates will be posted on the checklists.

Exploravision Group of 2-4 www.exploravision.org	Science or Engineering Project Individual or Pairs http://www.societyforscience.org/isef/	Due date & assignment
Create and explore a vision of future technology by combining imagination with the tools of science. See above website for more information.	Design and conduct an experiment to answer a question or solve a problem. Engineering projects set a goal and build a prototype. See above website for more information.	
TOPIC Select group and identify topic. Write a paragraph explaining your topic (the technology, the problem it could solve and a short explanation). **DESIGN PROCESS** Explain three other topics you initially thought about. Explain why you decided to focus on your topic instead of the other ones. **FUTURE** This is the most important part of the Exploravision paper. Describe your vision for your project. Use original drawings whenever possible.	**TOPIC AND PURPOSE** Work individually. Describe topic and briefly explain why you chose this topic **MATERIALS** Make a list of ALL the equipment and materials that you will need to complete your project at home **METHODS** Describe the procedure that you will follow in order to test your topic.	Friday, August 25th Lab Grade (no other work will be accepted until the topic has been approved)
HISTORY, PRESENT, & BIBLIOGRAPHY. Follow formatting guidelines given to you. You will resubmit these sections, be sure to save your work electronically. This should be written in proper MLA or APA format and include a bibliography. SUBMITTED through TURNITIN	**BACKGROUND RESEARCH & BIBLIOGRAPHY** Write a summary of background research relating to your topic and design your experiment. Introduce your paper with the purpose, question, and hypothesis. This should be written in proper MLA or APA format and include a bibliography. SUBMITTED through TURNITIN	Friday, September 15 (Forms and Rough Draft) Friday, September 29th Final Draft Lab Grade
REVISED FUTURE AND PROTOTYPE, BREAKTHROUGHS, & CONSEQUENCES Follow guidelines provided from teacher. SUBMITTED through TURNITIN	**RESULTS** Display data in appropriate tables and graphs with pictures Conclusion: written in the CER (claim-evidence Reason format)	Friday, October 27th Lab Grade
ABSTRACT Describe your project in 150 words or less. SUBMITTED through TURNITIN **WEB PAGE GRAPHICS** (5) Follow directions provided.	**ABSTRACT (Submitted on Turnitin.com)** Complete all aspects of the abstract in 250 words or less. **BACKBOARD DISPLAY** Turn in an attractive and well organized backboard describing your work.	Friday, December 1st Lab Grade
December 8, 2023 TCCHS Science Fair **A Physical Backboard Display will be needed for Region and State Level Competitions.**		
January 31, 2024 Virtual Competition for Exploravision **TBD: Region Science Fair**		

Exploravision: 1st nine weeks Rubric
Part 1: Topic, Design Process, and Future   Due August 25, 2023 (Lab Grade)

	Excellent	Good	Fair
Topic and Purpose Describe the team's vision for what this technology will be like in 20 years, and explain what you A brief summary of why and how you chose this topic	30 Topic and Purpose are clearly described with significant supporting details	25 Topic and Purpose are both described, but could use supporting details	20 Topic is provided, but needs some supporting details; purpose is vague or missing
Design Process Design Process–Describe three alternative ideas or features the team considered for this ExploraVision project. The ideas and features should be directly related to the entry, not a list of other entries you may have submitted. Describe why the team rejected each feature and idea in favor of the ones in the submitted ExploraVision technology. Describe the team's design process.	30 Three clear alternative ideas are presented and explained. A description of why each idea was rejected is also included.	25 Two alternative ideas were presented. Some supporting details were provided OR Three ideas were presented, but lacked supporting details or rejection explanations.	20 One or two alternative ideas were presented, but lacked the supporting details with the information provided. There was a lack of rejection explanations.
Future The Future will be the most important part of your Exploravision paper. You must use the design process to help you envision the future technology needed for developing your project. Any new innovations or scientific discoveries involved in the future design of your product must be discussed separately in this section.	30 Future technology is complete, accurate, and stated clearly. The idea is original and creative. New innovations and scientific discoveries are clearly linked to the new technology	25 Future technology is somewhat complete, accurate, and stated clearly. More details need to be provided to further develop the idea. . New innovations and scientific discoveries are mentioned, but not clearly linked to the new technology	20 Future technology is incomplete or not accurate. The future technology is not stated clearly. More details and further investigation is needed to refine the topic. . New innovations and scientific discoveries are not mentioned.
Format and Grammar *Be sure to double-space and use 12 pt. standard type and 1 inch margins. Also include a bibliography of at least five sources (in proper MLA or APA format). Although reports may be much longer, your report should be 2-3 pages long, not including the bibliography.*	10 Correct capitalization; correct grammar and usage contribute to clarity and style; very little need for editing.	7 Punctuation, spelling, and capitalization are generally correct; occasional lapses in correct grammar or usage; moderate need for editing.	5 Basic punctuation tends to be omitted, haphazard, or incorrect; frequent spelling errors; capitalization is inconsistent or incorrect; errors in grammar or usage interferes with readability and meaning; substantial need for editing.

Exploravision Part 2: History, Present and Bibliography DUE, (Lab Grade)
Rough Draft September 15, 2023
Final Draft September 29, 2023

Write a summary of background research relating to your topic and design your experiment. Introduce your paper with the purpose, question, and hypothesis This should be written in proper MLA or APA format and include a bibliography. SUBMITTED through TURNITIN.

	Excellent	Good	Fair
History Research and describe the history of the technology from its inception.	35 History is well researched, and the Information is complete, accurate, and stated clearly regarding the history of the technology from its inception. Paper is 1-1.5 pages and citations are included and written in APA or MLA format	30 History is researched, and the Information is complete and accurate. Some of the history is not state clearly or needs to have some supporting details Paper is less than 1 pages and citations are mostly complete and correct in the appropriate format	25 History information is incomplete, contains inaccuracies and is not clear. Paper is less than 1 page, and citations are missing or incorrect.
Present Give an overview of the present form of the technology, including some scientific principles involved in how it functions. Define a key challenge or limitation of this present technology that you will address in your ExploraVision project	35 Present technology and scientific principles involved are researched, and Information is complete, accurate, and stated clearly. A key challenge or limiationation is clearly presented and is also clearly addressed. Paper is 1 to 1.5 pages and citations are included and written in APA or MLA format	30 Present technology and scientific principles are complete, but are not stated clearly. A key challenge or limitation is presented Paper is less than 1 page and citations are mostly complete and correct in the appropriate format	25 Present technology and scientific principles are incomplete, and contain inaccuracies and are not clear. The key challenge is missing or details are needed. Paper is less than 1 page, and citations are missing or incorrect.
Bibliography All sources used in researching the chosen technology should be referenced in the bibliography. Sources must be clearly labeled and include title, author, publisher, and copyright date. Internet sources, interviews, and non-original graphics should also be referenced in the bibliography. Footnotes are encouraged, but not required. The bibliography is not counted as part of the description.	20 At least five sources listed correctly using MLA or APA format	18 Between 3 or 4 sources listed with proper format or five sources listed with improper format.	15 Less than three resources listed with or without improper format.
Format and Grammar	10	7	5

Be sure to double-space and use 12 pt. standard type and 1 inch margins. Also include a bibliography of at least five sources (in proper MLA or APA format). Although reports may be much longer, your report should be 2-3 pages long, not including the bibliography.	Correct capitalization; correct grammar and usage contribute to clarity and style; very little need for editing.	Punctuation, spelling, and capitalization are generally correct; occasional lapses in correct grammar or usage; moderate need for editing.	Basic punctuation tends to be omitted, haphazard, or incorrect; frequent spelling errors; capitalization is inconsistent or incorrect; errors in grammar or usage interferes with readability and meaning; substantial need for editing.

Exploravision 2nd Nine Weeks Rubrics
Exploravision: Part 3 Revised Future, Breakthroughs, and Consequences
DUE: Friday, October 27, 2023 (Lab Grade)

	Excellent	Good	Fair
Revised Future and Prototype Describe the team's vision for what this technology will be like in 20 years, including scientific principles involved in developing the technology.	30 Students have logged into turnit in and viewed grade and comments from previous future assignment description. Students have made corrections based on comments. Prototype is computer generated or a scanned picture of their idea prototype is presented in this section, along with an adequate description of the prototype.	25 Student has viewed and graded, and has made some corrections. More corrections or details are still needed to support their idea. Prototype is presented, but there is no discussion or description of the prototype.	20 Students have not viewed or made corrections. Students have copied and pasted previous future assignment descriptions. Prototype is missing or inadequate.
Breakthroughs Research and describe breakthroughs that are necessary to make the future technology design a reality, i.e., Why doesn't this future technology exist today?	30 2-3 well written paragraphs on why this future technology doesn't exist today. Research and thoroughly describe the breakthrough (scientific achievements) that are necessary for this design to become a reality.	25 1-2 paragraphs discuss breakthroughs (scientific achievements) that are necessary for this design to become a reality.	20 1-2 paragraphs that are incomplete or missing the main idea of why this technology does not exist today.
Consequences Recognizing that all technologies have positive and negative consequences, describe the potential positive and negative consequences of the new technology on society.	30 Both positive and negative consequences are clearly and effectively discussed in a thoughtful paragraph for each one.	25 Both positive and negative consequences are present. Some details are missing to add support to their descriptions.	20 Either positive or negative consequences are mentioned, not both.
Format and Grammar *Be sure to double-space and use 12 pt. standard type and 1 inch margins. Also include a bibliography of at least five sources (in proper MLA or APA format). Although reports may be much longer, your report should be 2-3 pages long, not including the bibliography.*	10 Correct capitalization; correct grammar and usage contribute to clarity and style; very little need for editing.	7 Punctuation, spelling, and capitalization are generally correct; occasional lapses in correct grammar or usage; moderate need for editing.	5 Basic punctuation tends to be omitted, haphazard, or incorrect; frequent spelling errors; capitalization is inconsistent or incorrect; errors in grammar or usage interferes with readability and meaning; substantial need for editing.

Exploravision Part 4: Abstract, Webpages and Final paper
DUE Friday, December 1, 2023 (Lab Grade)

	Excellent	Good	Fair
Abstract This will be submitted through TurnItIn. An abstract of no more than 150 words (typed, double-spaced and clearly labeled) that summarizes the proposed future technology and other relevant information. Remember this is the first section that judges will read. Your abstract should create interest in and establish the importance of your project..	40 All portions of the abstract are included The abstract is less than 150 words. Proper tense and grammar are used.	35 The abstract contains some of the important formatting elements.	30 The abstract contains only one of the important formatting elements.
5 Webpages To communicate your vision of the future technology, you must prepare five graphics simulating web pages to promote your technology. These may be hand-drawn and scanned, or may be made as PowerPoint slides. Either way, they must be added at the end of the project description and should be landscape format. Mandatory criteria: The sample Web pages should relate to material presented in the written description and illustrate the attributes of the chosen technology. Each Web page should relate to the others as if the team were actually designing a website to promote its future technology. **One Web Page must be devoted to a depiction of a model or visual representation of the technology that could be used to create a prototype for display; the model does not need to be a perfect representation of what the technology would look like completed, just a depiction that will help others visualize the design and communicate key features.** Please remember to give proper credit in the bibliography to any non-original artwork	40 All five sections of slides are complete Visual representation of model or prototype at least one image on one of the webpages. Headings are used to make it easy to find sections Continuity between pages. Each web page must be designed as if a website team is promoting the future technology. Neat and creative use of color and visuals. Well-organized, neat, proofread, and easy to read. Appropriate pictures are included.	35 1 slide is incomplete and missing adequate supporting details Visual representation is missing or inadequate Headings are not used effectively Some continuity between web pages. Somewhat neat, attractive, and easy to follow	30 3-4 of the slides are incomplete and missing many supporting details No visual representation Webpage lack continuity between pages. Sections are not in a logical order Not neat, attractive, nor easy to follow
Final Paper · Title on first page of description · Typed, double-spaced · Eleven or fewer pages	10 All parts of final paper are presented in the correct order		5 Parts of the final paper are missing or out of order

· 1" margins
· A standard font in 12-point size
· Use headings for each section
   ● ABSTRACT
   ● PRESENT TECHNOLOGY
   ● HISTORY–FUTURE TECHNOLOGY–
   ● BREAKTHROUGHS–
   ● DESIGN PROCESS
   ● CONSEQUENCES
   ● BIBLIOGRAPHY
   ● WEBPAGES (5)			

Format and Grammar *Be sure to double-space and use 12 pt. standard type and 1 inch margins. Also include a bibliography of at least five sources (in proper MLA or APA format). Although reports may be much longer, your report should be 2-3 pages long, not including the bibliography.*	10 Correct capitalization; correct grammar and usage contribute to clarity and style; very little need for editing.	7 Punctuation, spelling, and capitalization are generally correct; occasional lapses in correct grammar or usage; moderate need for editing.	5 Basic punctuation tends to be omitted, haphazard, or incorrect; frequent spelling errors; capitalization is inconsistent or incorrect; errors in grammar or usage interferes with readability and meaning; substantial need for editing.