

**Science Project Description:**

In the Science Project, contestants must create a lab/experiment and lab report detailing a problem or something they attempted to find/discover. They must use the scientific process to create a professional lab. The criteria and detailed point breakdown for the Science Project can be seen below on this page. This project will be submitted by contestants taking pictures of their lab report, or through the means of submitting it online as a PDF. For the actual lab/experiment, a video may be taken and submitted, or a picture of the lab/experiment may be taken. The method the contestant chooses to submit will not impact how it is judged. The contestant only has to choose one method to submit, but can choose more if they want to.

**Where to submit your project:**

You may submit your video/picture/PDF to our email, [contact@tsoaonline.org](mailto:contact@tsoaonline.org), if the file is less than 25 MB. If the file is greater than 25 MB, share it with our email account via Google Drive.

**Science Rubric:**

Criteria:	1st Judge	2nd Judge	Total
Abstract	___/15	___/15	___/30
Background Information	___/15	___/15	___/30
Hypothesis	___/5	___/5	___/10
Procedure	___/10	___/10	___/20
Data	___/10	___/10	___/20
Data Analysis	___/15	___/15	___/30
Sources of Error	___/5	___/5	___/10
Conclusion	___/15	___/15	___/30
Resourcefulness	___/10	___/10	___/20
Tiebreaker: Communication	___/5	___/5	___/10

<b>Overall Total:</b>	___/100 + ___/5 (Only Add For Tiebreaker)	___/100 + ___/5 (Only Add For Tiebreaker)	___/200 + ___/10 (Only Add For Tiebreaker)
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**Point Breakdown:**

<u>Point Value (0-15)</u>	<u>Excellent (11-15)</u>	<u>Average (6-10)</u>	<u>Poor (0-5)</u>
Abstract	Excellent summary of project and results, and includes a concise problem statement. The length is also 400 words or less.	Summary of project and results are present, and includes a problem statement. The length is also 400 words or less.	Poor summary of project and results, and/or does not include a problem statement, and/or length is not 400 words or less.  <b><u>OR</u></b>  No abstract is present.
Background Information	The information included is completely relevant to the topic/problem. Gives all necessary knowledge to understand the project/experiment as a whole.	Good correlation between information provided and the project topic. Gives most of the necessary knowledge to understand the project/experiment as a whole.	No correlation between information provided and the project topic. Gives little to none of the necessary knowledge to understand the project/experiment as a whole.  <b><u>OR</u></b>  No background information is present.
Data Analysis	Transforms and inspects data in an organized, professional, and impressive manner	Transforms and inspects data in an acceptable manner, appropriate for what the goal of the	Transforms and inspects data in a poor manner, inappropriate for what the goal of the

	that facilitates the discovery of what the goal of the experiment was stated to be.	experiment was stated to be.	experiment was stated to be.  <b><u>OR</u></b> No data analysis is present.
Conclusion	Conclusion is written with a restatement of the problem and hypothesis. Summarizes the data (with numerical/quantitative data), and explains how the data correlates with the background information. Finally, explains how the data/data analysis proves or disproves the hypothesis. Includes future implications as well.	Conclusion includes some of the criteria outlined in the first column regarding the conclusion. Also does not explain connections and parts of the project in depth.	Conclusion includes very little of the criteria outlined in the first column regarding the conclusion. Little to no explanation of the criteria included.  <b><u>OR</u></b> No conclusion is present.

<u>Point Value (0-10)</u>	<u>Excellent (8-10)</u>	<u>Average (4-7)</u>	<u>Poor (0-3)</u>
Procedure	Well-written and specific procedure that effectively details the method of observation/experimentation of the project. Includes a complete list of materials used in the experiment.	Outlines the steps used to carry out the experiment. Includes a complete list of materials used in the experiment.	Little to no detail to guide the reader for carrying out their experiment. List of materials is not complete or is not present.  <b><u>OR</u></b> No procedure section is present.
Data	Provides and presents data with correct	Data is included but not specific in what is	Data has little to no correlation to the

	units and significant figures in a professional and impressive manner.	being presented. Additionally, if data is out of order, without correct units, or not presented in a professional manner.	problem being dealt with.  <b><u>OR</u></b>  No data is present.
Resourcefulness	Shows an exceptional ability of making use of resources available at home.  <b><u>OR</u></b>  The project is entirely (or partially) conducted out of home. The use of resources is still exceptional.	Shows an ability of making use of resources available at home.  <b><u>OR</u></b>  The project is entirely (or partially) conducted out of home. The use of resources is acceptable for not being done at home.	Takes little advantage of the resources available to them at home.  <b><u>OR</u></b>  The project is entirely (or partially) conducted out of home. The use of resources is subpar.

<u>Point Value (0-5)</u>	<u>Excellent (4-5)</u>	<u>Average (2-3)</u>	<u>Poor (0-1)</u>
Hypothesis	An adept hypothesis is given. The hypothesis should be based on the background information.	Hypothesis is listed, but does not explain how it is connected to the previous information gathered.	Very poor hypothesis that does not correlate to the problem within the project.  <b><u>OR</u></b>  No hypothesis is present.
Sources of Error	Includes an excellent understanding of where error could have occurred during the project. Also includes how the project can be improved in the future to eliminate	Includes sources of error or future changes to the project to reduce error. Does not include both.  <b><u>OR</u></b>  Errors are stated but	Very poor or loosely related sources of errors/future alterations stated.  <b><u>OR</u></b>  No errors and future changes are present.

	any errors from occurring.	not explained.	
Communication (Tiebreaker)	Excellent and concise communication of ideas, along with a visually appealing presentation of those ideas.	Ideas are communicated, and the presentation is somewhat visually appealing.	Ideas are communicated poorly, and/or the presentation is not visually appealing.  <b><u>OR</u></b>  Ideas communicated are not related at all to the experiment.

**For projects in which a certain criteria is not present, that project will receive an automatic zero for that criteria.**

**If you plagiarize, you will automatically be disqualified.**

If you have any additional questions/concerns regarding the TSOA Technology Project Rubric please reach out to us via email at: [contact@tsoaonline.org](mailto:contact@tsoaonline.org)