



MARS STUDENT IMAGING PROJECT

ASU MARS EDUCATION PROGRAM



MSIP Presentation/Final Report Outline

I. Introduction

The purpose of the introduction section is to introduce your project and science question.

The Introduction section should include the following information:

- What is your science question?

- Why is this question important and interesting?

- List any hypotheses you may have had of what the answer(s) might be to your science question.



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II. Background

The purpose of the background section is to provide background information about the specific features you are studying.

The Background section should include the following information:

- List definitions, specific knowledge, and hypotheses from other scientists about your geologic feature(s) on Mars as it relates to your science question.
- Show what your features **look like** on Mars in selected images, sketches, or pictures.
- Show **how** your features are thought to form (the geologic process) on Mars in a sketch or image.
- If the features you are studying are found on Earth, how are they thought to be formed?



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*Remember to cite (reference) any facts and images you include in your background information (where did that information come from) and include those sources in your bibliography.

III. Methods

The purpose of the methods section is to allow other scientists to repeat your experiment and to show the reliability of your data. The methods section includes the step-by-step process detailing exactly what you did to collect your data.

The Methods section can include the following:

(Note: Some of this information may not apply to all projects):

- What specific spacecraft and camera did you use to collect data for your research?
- What geographic region(s) and/or geologic features did you focus on during the process of collecting your data?
- What website(s) did you use to gather your data and how did you use it (them)? Be specific as to how you used the web site.
- List the specific type of information you planned to record from each image you observed, and why?
- What measurements did you obtain, how and why?



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IV. Data

The purpose of the data section is to list and display the data you collected and observations of that data. It does not include interpretations of those data.

The Data section may include:

- How many THEMIS images did you collect?
- Show good examples of the features you observed and/or measured from the data you collected.
- Display your data:
 - IN A TABLE
 - ON GRAPHS
 - ON A MAP



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V. Discussion

The purpose of the discussion section is to re-show the data you collected and discuss and explain your interpretations of the observations you made as it relates to your science question.

The Discussion section should include the following information:

- Re-show your data table(s) and discuss what the data means as it relates to your science question.

- Re-show your graphs and discuss the meaning of each as they relate to your science question.

- Re-show your data map and discuss what it may mean as it relates to your science question.

- Discuss the potential errors with the data you collected
 - Could there be inaccuracies? If so, please explain.

 - Could there be misinterpretations? If so, please explain.



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VI. Conclusions

The purpose of the conclusion section is to summarize and conclude your science project.

The Conclusion section should include the following information:

- Restate and answer your science question based on your interpretations from the discussion section.

- Restate and support or refute any hypotheses based on your interpretations from the discussion section.

- What future work could be done to expand your research project?

- Who can you acknowledge for helping you complete your science project?

VI. References



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The purpose of the references section is to support all sources of information used to create your science report. It includes:

- **A list of books, websites, people and equipment used to obtain your information.**