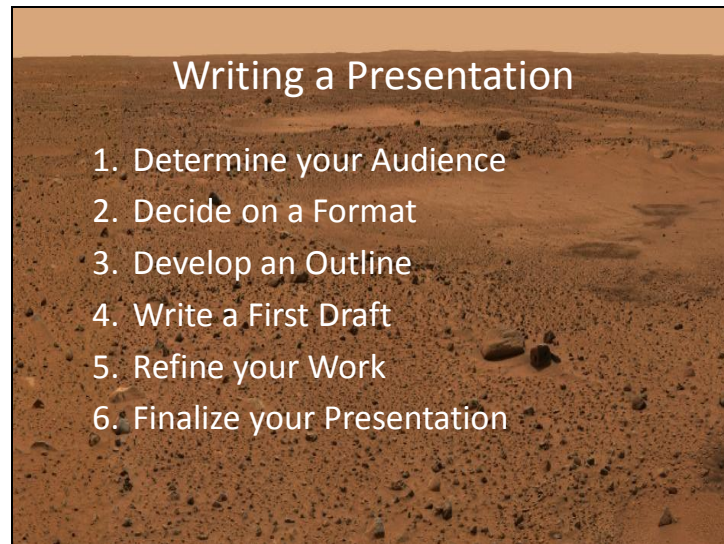


TEACHER: You may choose to walk students through this entire presentation before they begin writing their skits or may choose to use this presentation during the entire two day lesson. If you choose to use it during the entire lesson, STOP points are built in for students to work after they have learned how to complete each step of the skit development process.

Stop at these points and monitor students as they work. You may wish to leave the presentation up at each stop point so students may refer to the information on these slides as they complete their work.



Writing your Mars Rover skit isn't as simple as just starting to write and then presenting it. There are a number of things you should do first to make sure your skit has all the information it needs and makes sense when you present it. We will be walking through the steps shown here today and tomorrow so your presentation can be both fun and well-written.



Step 1: Audience

Who are you presenting to?

Depending on your audience, you might make a **PROFESSIONAL** or an **INFORMAL** presentation:

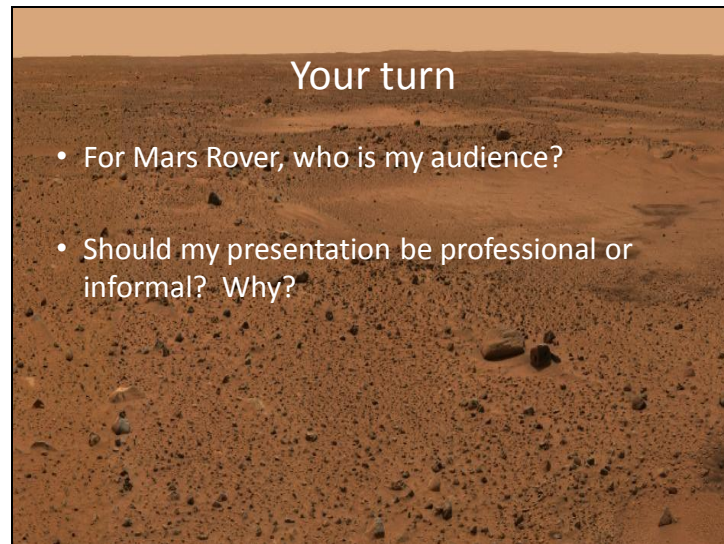
	PROFESSIONAL	INFORMAL
Length	short or long	short
Preparation	large amount of time	very little preparation time
Visual Aids	frequently used, polished	sometimes used
Rehearsals	YES	NO
Refinements	YES	NO
Audience	large: adults, experts	small: family, friends, classmates
Vocabulary	academic, consistent	language often varies from one performance to the next

The first thing to consider when writing a presentation is your audience. Who will be reading or listening to your presentation? Is your audience other students your age, your teacher or scientists?

One type of presentation is informal. Informal presentations generally do not require a lot of preparation time or practice. Often, an informal presentation might be made using just a brief outline or even without notes. The presenter usually speaks for only a brief period of time and their main goal is to explain their point clearly and quickly. Here are some examples of informal presentations: explaining to your class how you did a homework problem, telling your friends about your summer vacation trip, reading a short article and telling your classmates what it was about. An informal presentation will use no or very few visual aids (such as pictures, posters or power point presentations). You might conduct an informal presentation for a group of friends, your parents or your teacher.

Other presentations are professional. Another word for professional is formal. A professional presentation should sound just like it was written by an expert. Professional presentations usually involve a large amount of preparation, sometimes involving several weeks of effort. Formal presentations tend to be longer and have good flow. If a formal presentation is presented more than once, each performance will sound almost the same as the others. Professional presentations usually involve rehearsals. Presenters try to include good academic vocabulary words on their topic. During rehearsals, the presentation is refined to improve flow and clarity. In a professional presentation, your audience might be comprised of mostly adults and even people you don't know very well. There are often formal PowerPoint presentations or

other visual aids such as poster boards. Presenters will often dress in very nice clothing, costumes or uniforms.

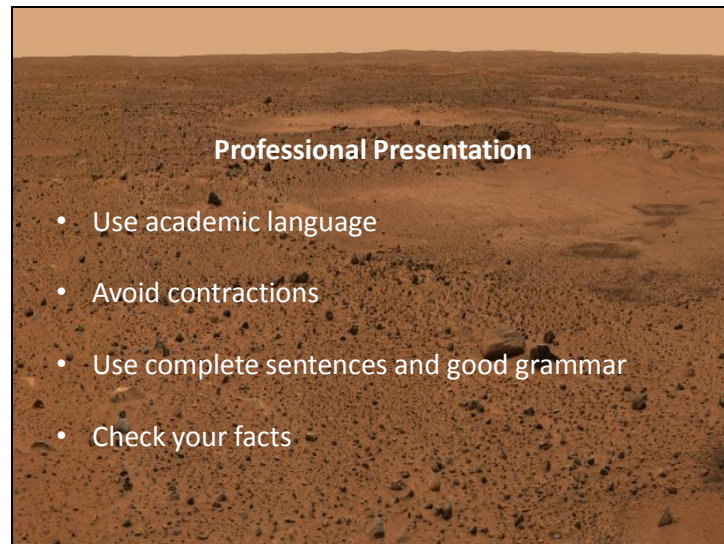


STOP HERE. (Let your students ponder these questions. Allow them to talk to each other to answer the questions. If they have difficulty, guide them to the answers below. Provide hints and scaffolding as necessary.)

In the case of your Mars Rover presentation, your audience will be comprised of real scientists.

For this type of audience, your presentation should be PROFESSIONAL.

Why? You want the scientists you talk to be impressed by your knowledge of Mars. You want to look and sound just like a professional scientist or astronaut when you give your presentation. You will want to rehearse your material so that you know it well and can answer the questions posed by anyone who listens to your presentation. Let's now learn about how you can achieve this.



Here are some things you should do in order to create a professional presentation.

First, in a professional presentation, you should use academic language. Academic language are those words that you tend to hear at school, but are not the words you usually use when you talk to your friends. Academic words include the kinds of words we have been studying in Mars Rover, words like calculate, represent, revolution and geology. By using academic language, you are showing your audience that you know your subject well.

In professional writing, you should also avoid using contractions. For example, instead of writing don't, write "do not".

Another consideration in a professional presentation is to use complete sentences and good grammar. Remember, you want to impress your audience with your knowledge of Mars and of how your Mars Rover will successfully carry out its mission. Grown-ups, such as the scientists who will be listening to your presentation will be more impressed if you take the time to craft well-written sentences with proper grammar.

You should also make certain that any facts you state about your mission are correct. The scientists who will be judging your Mars Rover project are experts in the field of astronomy. If you state something incorrectly, they will know. It could be very embarrassing for your team to have to admit you made an error in front of the scientists who have come to see you.



Remember, the Mars Rover rules state that every member of your team needs to be involved in your presentation. There are many different ways in which you can make your Mars Rover presentation. You will need to decide on how you might effectively present your mission. Here are just a few ideas:

An oral presentation: In this style, your team writes a summary of your Mars Rover project. Once completed, each person is assigned a section or a few paragraphs to read.

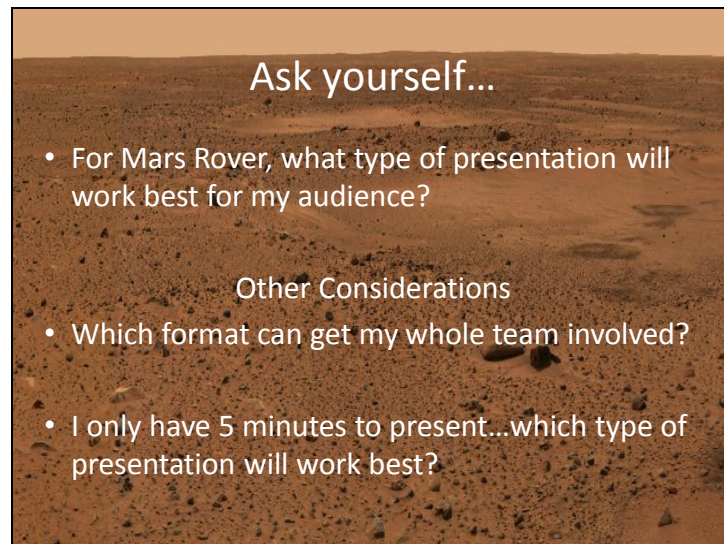
A play or skit: Here a dialogue is written in which several characters discuss your Mars Rover mission. You might consider pretending to be NASA scientists and to wear lab coats.

A PowerPoint Presentation: You are looking at a PowerPoint presentation right now. You can create one for your Mars Rover project. Each member of your team could present a number of the slides.

A Newscast: You could also create a newscast. You could have part of your team be reporters and part of your team be NASA scientists. Your “reporters” would the ask questions of your “scientists” who would then explain the details of your Mars Rover Mission.

There are hundreds of other possibilities for your skit. Be creative and original.

(TEACHER: If time permits, allow children to brainstorm other ideas for their presentation.)



STOP HERE. (Allow each team to discuss the questions on this slide. Guide their conversations by probing with the following additional questions.)

- How can you best communicate your mission to the people who will attend the Mars Rover Celebration?
- Can you make everything you want to say fit into 5 minutes if you choose “...X....”?



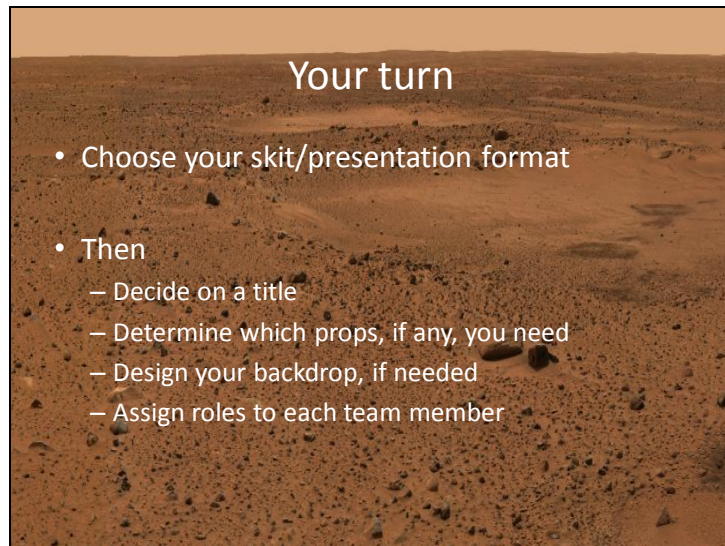
After you choose your format, you have several other decisions to make...

What will be the title of your skit?

Do you need any props? Props would be any objects you will use during your skit. It might include anything from a lab coat to a glass of water to your Mars rover prototype. If you need props, you will need to decide who on your team will be responsible for obtaining them.

The next thing to consider is your backdrop or setting. The backdrop is a drawing of the “place” where your skit takes place. If you are doing a newscast, your backdrop would be a TV studio. If your skit is a conversation between astronauts, your backdrop might show the NASA insignia or may have a rocket on a launch pad. It is not necessary for you to have a backdrop for your skit. If you choose to have one, check with your teacher to see if the school has kraft paper and paints you can use to create your setting.

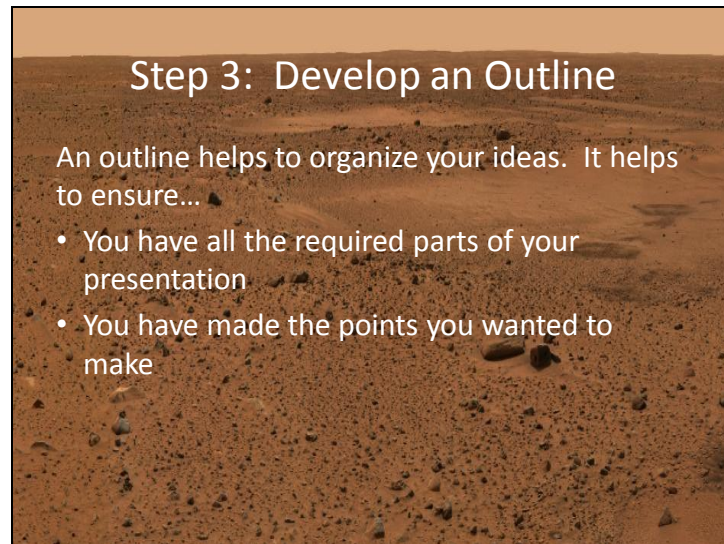
Next, you will need to assign a role in the presentation to each team member. Be creative in giving each team member an active part of your skit. Will each team member use their own name? Will each team member have a special career? Is there a robot, alien or some other unique character in your presentation? If so, which team member will play that role? You will need to decide how to resolve these problems, such as “What to do if everyone in your group wants the same role in your skit?”



Your turn

- Choose your skit/presentation format
- Then
 - Decide on a title
 - Determine which props, if any, you need
 - Design your backdrop, if needed
 - Assign roles to each team member

TEACHER: This is the next stopping point. Have your students work on this section of their Science Notebooks. Monitor the groups as they work and provide support as needed.

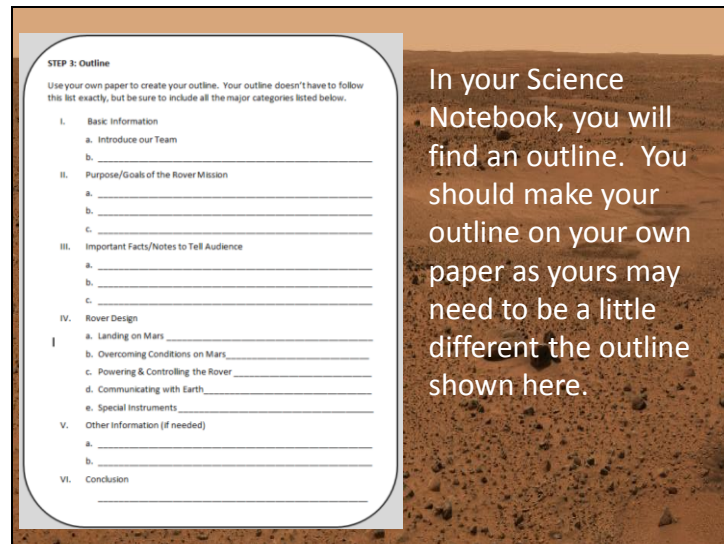


Step 3: Develop an Outline

An outline helps to organize your ideas. It helps to ensure...

- You have all the required parts of your presentation
- You have made the points you wanted to make

Paraphrase the information on this slide.



STEP 3: Outline

Use your own paper to create your outline. Your outline doesn't have to follow this list exactly, but be sure to include all the major categories listed below.

- I. Basic Information
 - a. Introduce our Team _____
 - b. _____
- II. Purpose/Goals of the Rover Mission
 - a. _____
 - b. _____
 - c. _____
- III. Important Facts/Notes to Tell Audience
 - a. _____
 - b. _____
 - c. _____
- IV. Rover Design
 - a. Landing on Mars _____
 - b. Overcoming Conditions on Mars _____
 - c. Powering & Controlling the Rover _____
 - d. Communicating with Earth _____
 - e. Special Instruments _____
- V. Other Information (if needed)
 - a. _____
 - b. _____
- VI. Conclusion _____

In your Science Notebook, you will find an outline. You should make your outline on your own paper as yours may need to be a little different the outline shown here.

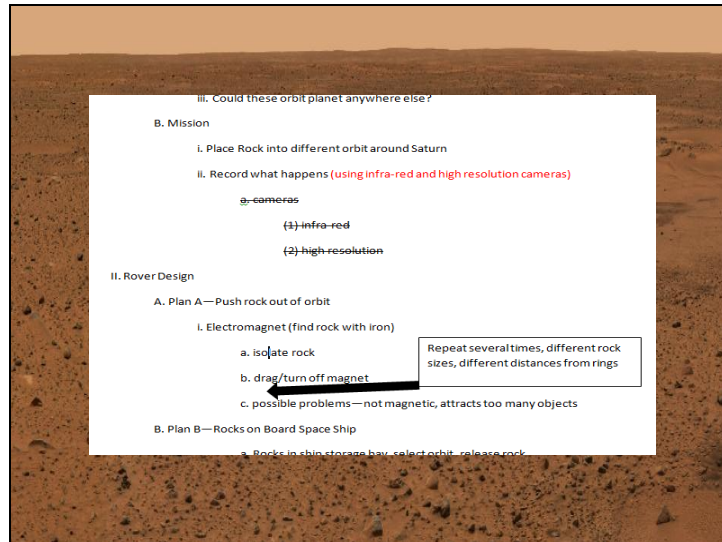
(Paraphrase the information on this slide.)

TEACHERS: The outline shown here parallels the Mars Rover Celebration Rover Guide that is required at the Mars Rover Celebration event. Students can use the above outline to ensure that all of the information they wish to present is in both their skits and the Rover Guide.

Explain to your students that the outline shown here and in their science notebook will probably not work exactly as written, but that they should follow the general format. This is why they should make their outline on their own paper. For example, under basic information, a letter “b” is available. Under “b”, some teams may choose to include information on the type of presentation they will conduct, if it may not be apparent to the audience (for example, if some of the team members may be “Martians”). In other cases, this will not be necessary and “b” can be eliminated.

Under the purpose and goals of the Rover Mission, a, b and c are listed. However, some teams may only have two points they wish to make in this section, while others may have more than three.

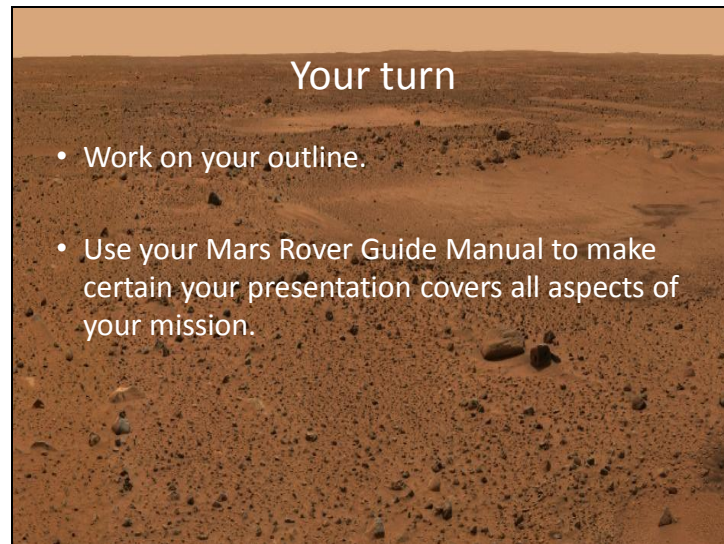
Slide 12



This slide shows part of an outline for a possible mission to Saturn that I used as an example in previous units.

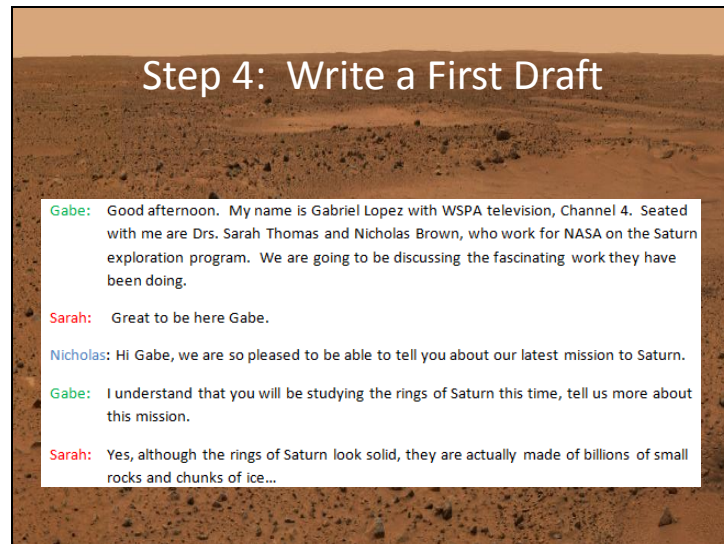
Outlines have another big advantage. If you realize that you left out some information or want to include additional information, it is easy to modify an outline. You can see here how we left off some information and used an arrow to show where we wanted to talk about it. You can also see where we crossed off information and moved it to another place. (*Point to the changes made on the outline.*) Using an outline in this way will help ensure that your presentation sounds just the way you want it to.

If you had skipped the outline and went directly to writing your presentation, you would have a big problem if you later decided to add something. You would have to completely rewrite the presentation. By contrast, if you use an outline, you can test out your ideas and make changes easily before you write your final presentation.



STOP HERE. Allow the teams to work on their outlines. The teams should use their Mars Rover Guide Manual for the major topics of their outline. The topics will include “Purpose/Goal of the Mission”, “Important Facts about Mars” (Background), and “Rover Design” (How Rover will Overcome Conditions on Mars, Power/Control, Communication with Earth, How it will Accomplish its Mission). Circulate throughout the room to make certain that each of the groups is addressing each of these categories.

If students do not have a lot of experience using/creating outlines, you can scaffold by having students work through one section at a time, monitoring their outlines as they are created. Based on your knowledge of each team’s rover, mission, and skit; make recommendations on what should be included in each section (as needed).



This slide has 1 CLICK of animation.

With the idea you have for your presentation and with the outline you just completed, you are now ready to write a first draft.

For my Saturn mission, my presentation idea was to conduct a television interview with the “scientists” responsible for the mission. We had three team members. Gabe chose to be the TV reporter and the other team members (Sarah and Nicholas) chose to play the role of scientists.

The next task was to work the information from the outline into the skit. Since this was going to be an interview, our team wrote the presentation in the form of a dialogue. We also assigned a different color to each of the names so each person would know when it was their turn to speak.

We started our interview by talking about the background information on Saturn and how we decided on our scientific question. This was the first item on our outline and became the first question of the interview. The rest of the interview would go through the remaining points of our outline.

(CLICK to bring up the dialogue. Either read the dialogue to your students or have student volunteers read the dialogue.)

Step 4: Write a First Draft

Mars Rover Celebration—Presentation/Skit Rubric

	Top-Notch	Thumbs Up	Fair	Novice
Audience	Presentation is specifically tailored to an audience of scientists and engineers	Students have thought about their audience and attempted to gear the presentation to a professional audience	Students have put some thought into who the audience will be and have attempted to write part of the skit with this audience in mind	No evidence that the team thought about the audience in developing the presentation
Professionalism	Formal language is used consistently; presentation is clear and in complete sentences	Formal language is used in places and for the most part; presentation is clear and in complete sentences	Some use of formal language is evident. Presentation lacks clarity in places or may suffer due to incomplete sentences	Formal language is absent or incorrectly used; tone of presentation is very informal
Creativity	Team selected a creative approach to their skit that was appropriate for their audience	Students have used some creative elements successfully in developing the presentation	Team has attempted to find a "theme" for presentation, but may not have done so successfully	Little or no creativity in creating the "theme" for the skit
Organization	Presentation is well-organized and all key aspects of mission are discussed; audience has clear understanding of mission	Presentation is organized and key aspects of mission are discussed; audience may have some questions but in general understands team mission	Parts of presentation are organized and most aspects of mission are discussed, however, the audience is lacking key information to understand the mission	Presentation is poorly organized; repetition of points or key aspects of mission missing from presentation; audience doesn't have clear understanding of mission
Delivery	Presentation is enthusiastic and smooth; it is clear the team has rehearsed and is well-prepared	Presentation may lack enthusiasm but delivery is smooth or enthusiasm present but some rough spots in presentation	Significant parts of presentation lack enthusiasm and show a lack of sufficient rehearsal	No rehearsal is evident; team members do not know their lines or when they are expected to speak
Time (5 minute limit—if over time, note in comments section below) Other comments:	Time well used; Presentation remains within 5 minute time limit	Minor loss of time; Presentation remains within 5 minute time limit	Significant loss of time during presentation due to lack of preparation and/or organization	Time is poorly used

One tool that is available for you to use as you create your presentation is the Presentation/Skit rubric.

As you write your first draft, pay special attention to the "TOP NOTCH" column. You want your presentation to be TOP NOTCH.

Under AUDIENCE, ask yourself if you have written your presentation with your audience of scientists and engineers in mind.

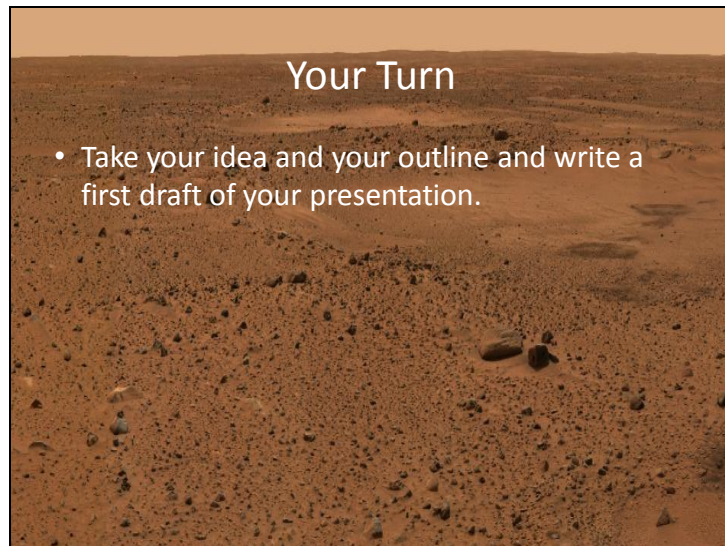
For PROFESSIONALISM, have you use the formal, academic vocabulary to explain your Mars Rover mission?

Under CREATIVITY, has your team created a fun and original skit to tell your audience about your mission?

For ORGANIZATION, is your skit well-written, clear and complete, so that when you finish, your audience has a clear understanding of what your mission will do?

The DELIVERY refers to how well you and your team members know your skit. Does each team member know when they are supposed to speak? Has everyone learned what they are supposed to say and how they are supposed to read each line? When your team reads the skit, do they sound enthusiastic (TEACHER: read this enthusiastically) or bored (read this as though you are bored)?

And finally, for TIME, you need to ensure your presentation is 5 minutes or less and that you use that presentation time well (not wasting time—such as having team members forget when to speak, having parts that are repetitive, etc...).



Your Turn

- Take your idea and your outline and write a first draft of your presentation.

STOP HERE. Allow the teams to work on an initial draft.



Once you have your first draft written, you should rehearse your presentation. Rehearse by reading to your teacher, to friends and even to your parents. Ask them to tell you if something in the presentation doesn't make sense to them. Also ask them to let you know whether the presentation seems to flow smoothly from point to point or whether it seems to jump around. Also make certain you have covered all of the important points about your mission. Refine your presentation once you hear their comments. Try to have someone new listen to your presentation after each refinement.

Time your presentation: You want to make certain you stay within the 5 minute time limit.

Step 5: Refine your Work

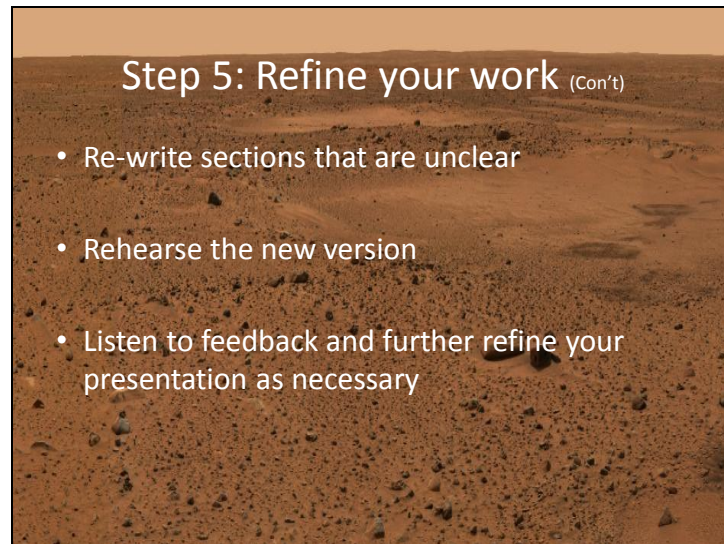
Mars Rover Celebration—Presentation/Skit Rubric

	Top-Notch	Thumbs Up	Fair	Novice
Audience	Presentation is specifically tailored to an audience of scientists and engineers	Students have thought about their audience and attempted to gear the presentation to a professional audience	Students have put some thought into who the audience will be and have attempted to write part of the skit with this audience in mind	No evidence that the team thought about the audience in developing the presentation
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Delivery	Presentation is enthusiastic and smooth; it is clear the team has rehearsed and is well-prepared	Presentation may lack enthusiasm but delivery is smooth or enthusiasm present but some rough spots in presentation	Significantly reduced presentation lack enthusiasm and show a lack of sufficient rehearsal	No rehearsal is evident; team members do not know their lines or when they are expected to speak
Time (3 minute limit—if over time, note in comments section below)	Time well used; Presentation remains within 5 minute time limit	Minor loss of time; Presentation remains within 5 minute time limit	Significant loss of time during presentation due to lack of preparation and/or organization	Time is poorly used
Other comments:				

Once you have refined and rehearsed your presentation, invite a friend, your teacher or your parents to listen to and evaluate your presentation. Give them a copy of the presentation rubric. As you perform your skit, ask them to circle how well they think your team has done.

Don't be angry if the person listening doesn't give your team a perfect score. They are actually helping you by pointing out the areas of your presentation that need improvement. Use the information they provide to make further changes to your skit. If you are unsure how to improve something on the rubric, ask them to explain why they scored you as they did.

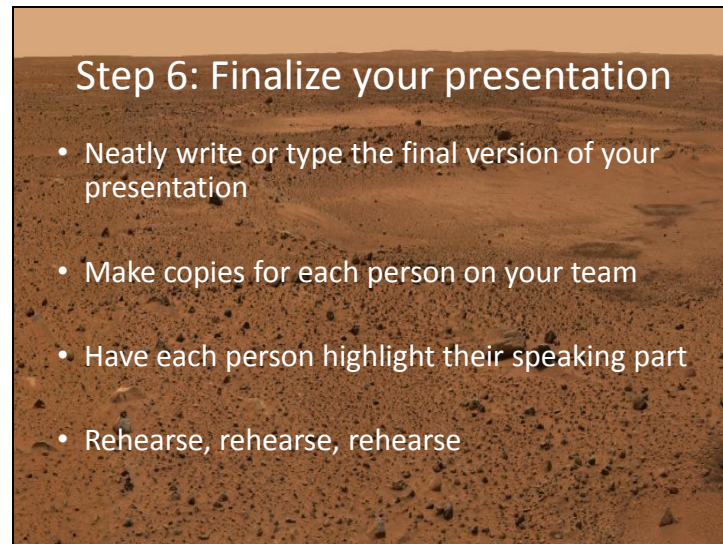
Be sure to thank the person for helping your team.



Once you have identified the parts of your presentation that need revising, re-write those sections. Unless your teacher or parents tell you that there is a major problem, you should be making refinements (small changes) to improve the clarity and flow of your presentation.

Then ask people to listen to you rehearse your new version. This is very important. They can tell you whether the new draft is clearer than the previous version and whether the presentation flows better. If there are new sections, they can let you know how well these fit into the presentation. In addition, if you had to shorten your presentation, your teacher, friends and parents can let you know whether you accidentally cut out something that was very important.

Based on what they tell you, refine your presentation some more. Continue to do this until you are happy with the presentation. If you cannot think of a way to fix a problem, ask your teacher for help.



Step 6: Finalize your presentation

- Neatly write or type the final version of your presentation
- Make copies for each person on your team
- Have each person highlight their speaking part
- Rehearse, rehearse, rehearse

Paraphrase the information on this slide.