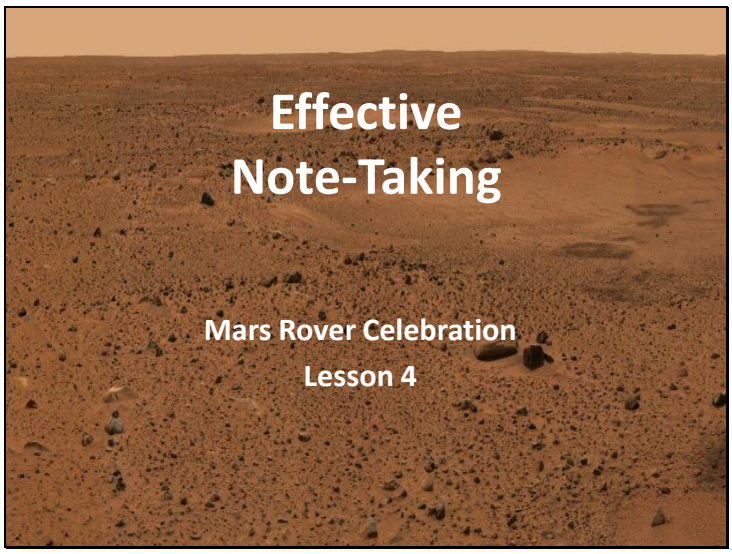
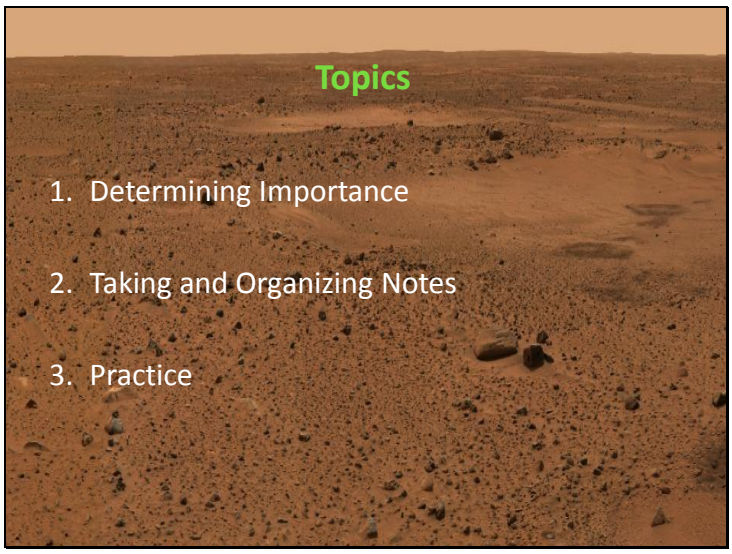
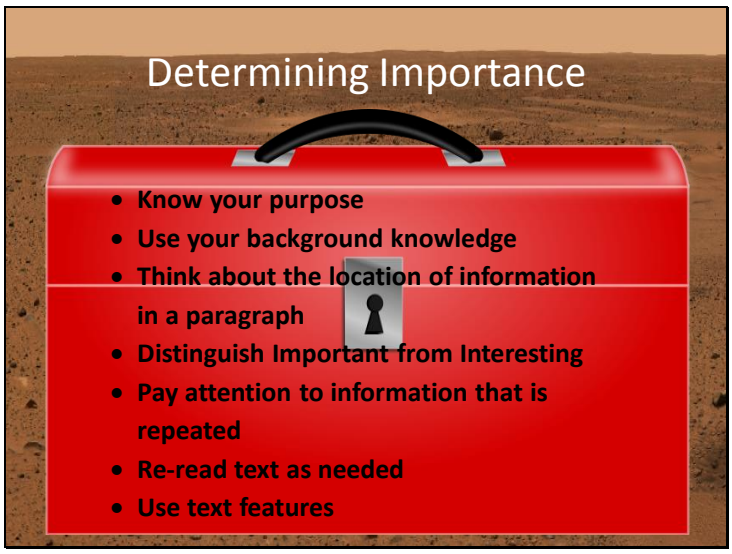
Slide 1



Slide 2


Topics
1. Determining Importance
2. Taking and Organizing Notes
3. Practice

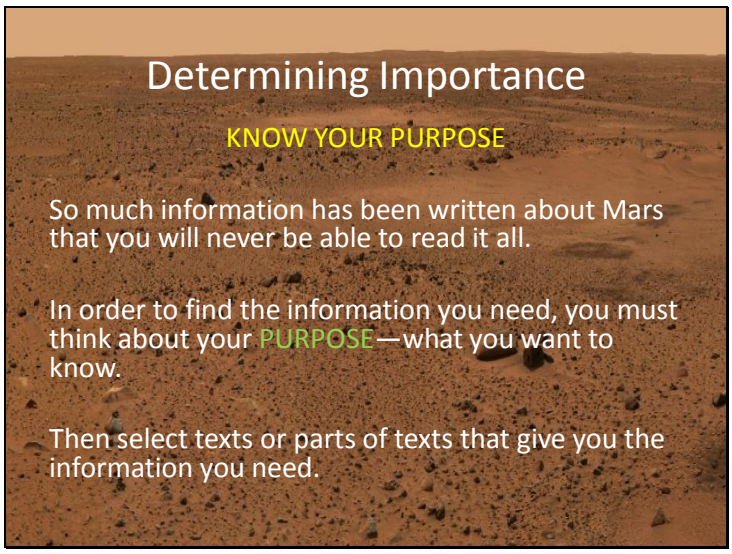
Slide 3



When you decided what information should go on the LOST ROVER sign, you were determining importance. In order to take good notes that will help you with your mission, you will also have to determine importance. There are many strategies good readers use to determine which information in an article is the most important. I have listed many of them on this slide. This is our determining importance toolbox. I will discuss each of these strategies with you.

(The Determining Importance Toolbox document is also available as a handout you may reproduce for your students so they can have these tools in front of them as they do their research.)

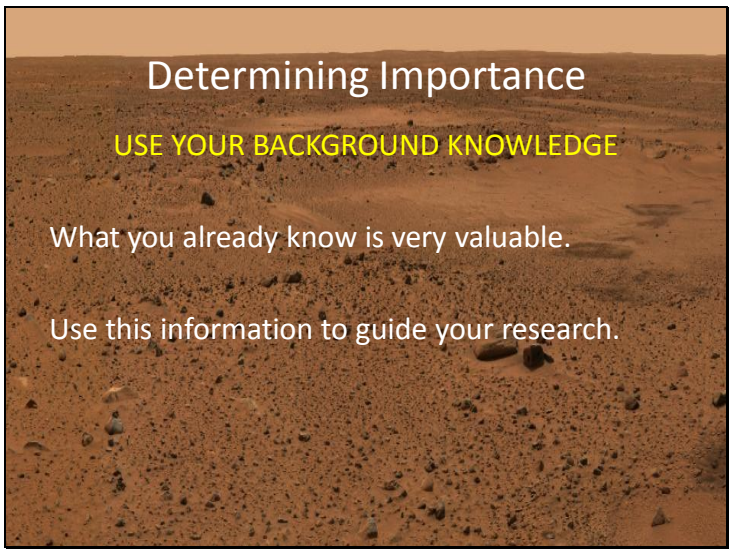
Slide 4



(TEACHER: This slide is a review from Lesson 3. Review this slide in as much or as little detail as you feel is necessary.)

The first thing we want to keep in mind to take effective notes is to know our purpose. So much has been written about Mars that we could read and read and read for days. We might learn lots of fascinating information about Mars but never find the information we need to complete our Mars Rover mission. It is so important to focus on our purpose so that we can skip those parts of books and articles that are not relevant and read those sections that will help us design our mission. That is one thing that's great about informational text. It is not like a book—we don't have to read the entire book or even read the book in order for the information to make sense. It is perfectly okay to read only the information we need and skip the rest.

Slide 5



Think back to Spirit, the lost Mars Rover. I provided you will a lot of information about Spirit. However, most of that information wouldn't be helpful to us in finding it. We had to figure out which information would be most useful and we used our background knowledge to do so.

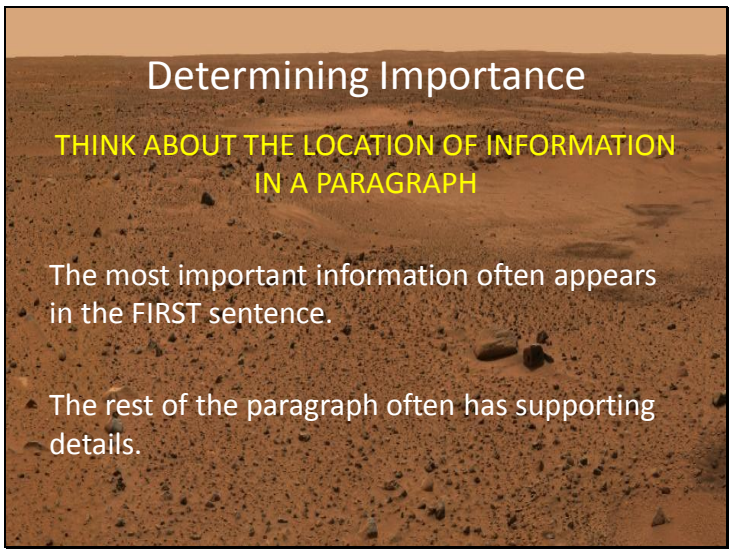
We have all lost things and had to search for them. We used this knowledge to figure out which information was most relevant to our search for Spirit.

We know that if a friend helps us look for a lost object, they have to know what it looks like. So we know we have to describe the object. That is why we picked the clue "Has six all terrain wheels, solar panels on top and a camera that protrudes like eyes" as our first important clue.

We also know from our background knowledge that a great place to look for a lost object is the last place we saw it. That's why we picked the two clues that told us where on Mars Spirit was last seen. (Near Home Plate, in soft soil.)

Clearly, what you already know can help you find the information you need for your Mars Rover mission.

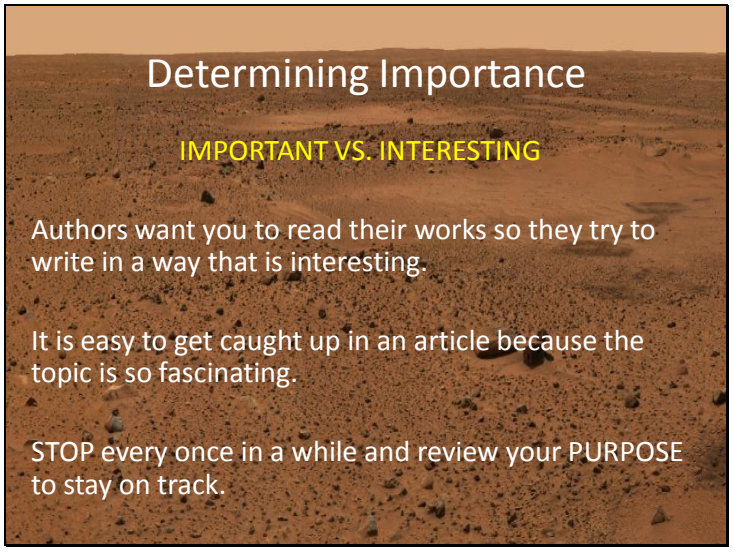
Slide 6



(Paraphrase the information on this slide. Then say…) So, as a good reader and researcher, you should pay special attention to the first sentence of your materials.

This doesn't mean you shouldn't read the whole paragraph. There will often be useful information in the entire paragraph. However, you should start with the first sentence and pay special attention to what it says.

Slide 7



When an author writes an article, their purpose is for the reader to read the entire article. So, authors try to write in a way that is interesting and grabs the attention of the reader. This is great when you are reading for fun, but not when you are doing research. Young researchers can sometimes get so caught up in an article that they learn lots of fun things but then realize that they never answered their research question.

It can be very helpful to STOP your research every once in a while and ask yourself, "Am I focused on my purpose? Am I finding the information I need for my Mars Rover project?"

TEACHERS: Distinguishing what is important from what is interesting is a big challenge for young researchers. As you monitor your teams, consider stopping them occasionally and having them review their purpose to keep their research on track. As you go from group to group, ask questions about the sources they have selected that bring them back to their purpose, such as, "How are you using this article to find out _____"

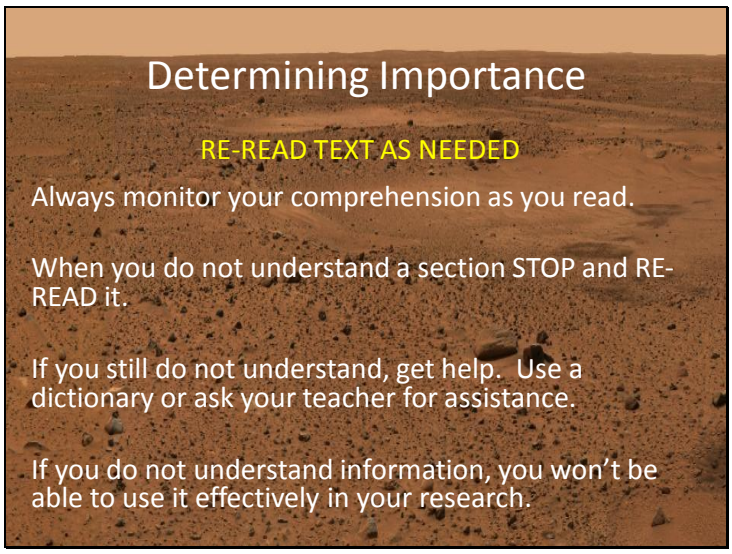
Keep in mind the following quote from Stephanie Harvey, "Identifying important information in exciting, well-written expository text can be troublesome, because compelling details may grab the imagination and lead readers astray…The most important ideas in well-written nonfiction are often deeply embedded in rich detail. Digging out the essence can present a challenge. Distinguishing what's important from what's interesting can mean walking a pretty thin line." (Harvey, 1998)

Slide 8

Another clue that information is important is when it is restated in a paragraph or a section. Restated means that the same information is provided to you using slightly different vocabulary. Authors do this to reinforce very important information. When you notice that an author is restating something, ask yourself the following:

"The author is restating this, so I know it is important. Is this something that will help me find the answers I need for my mission? Does it help me with my purpose for reading this section?"

Slide 9



Even the best readers sometimes don't understand what they read the first time. Good readers are monitoring their comprehension as they read. When they realize they didn't understand a section of text, they stop and re-read this section more carefully and slowly.

Don't be afraid to ask for assistance if you need it. Real scientists ask each other for help when they are having problems. Scientists call working together to solve problems "collaboration". If you do not understand after re-reading, try looking up words you don't understand in the dictionary. If this doesn't work, try collaboration yourself. Ask a friend if they understand the text or ask your teacher to assist you with that paragraph.

There are real consequences for people who use information that they do not understand. When people use information they do not understand, they run the risk of using it incorrectly. For students, using information incorrectly can lead to bad grades. However, for real Mars Rover scientists, using information incorrectly can lead to the accidents or errors that break the rover and cost many millions of dollars.

Slide 10

(TEACHER: This slide is a review from Lesson 3. Review this slide in as much or as little detail as you feel is necessary.)

Think back to all of the informational text features we discussed in our previous lesson.

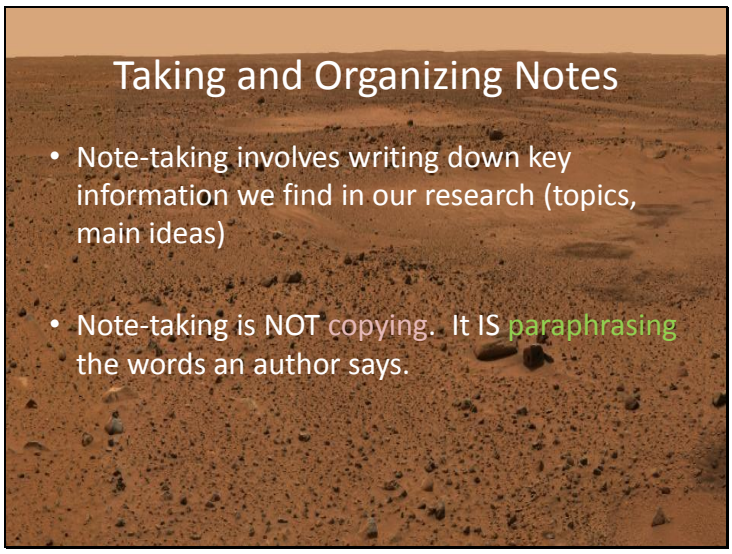
Combining our purpose with these tools enables us to quickly find the information we need.

Ensure the students understand how they can use the features listed to find information in text and electronically. (Tools specifically for electronic media are found on the next slide.)

Slide 11

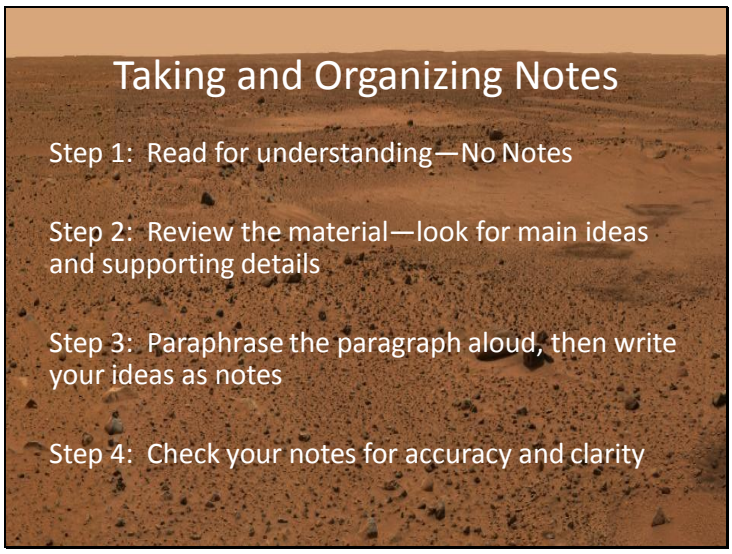
DVDs and the Internet provide additional tools that can assist students with their research. Ensure that your students are familiar with the following tools. Discuss their use as needed.

Slide 12



We now know how to determine what is important in text and how to find the critical information in the text we will be reading. However, it can be very difficult to remember everything we read. Our brains just can't seem to hold all of the information we are learning. This is true for nearly everyone, even scientists. So, people have developed a system for writing down and organizing the most critical information. We call this note-taking.

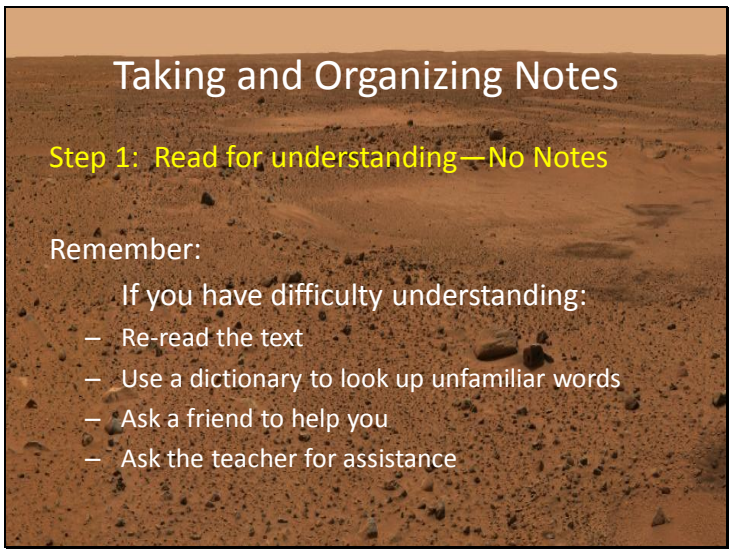
Slide 13



(Read the steps to your students. Each step is covered in more detail on the following slides. Then say…)

Let's look at each step in more detail.

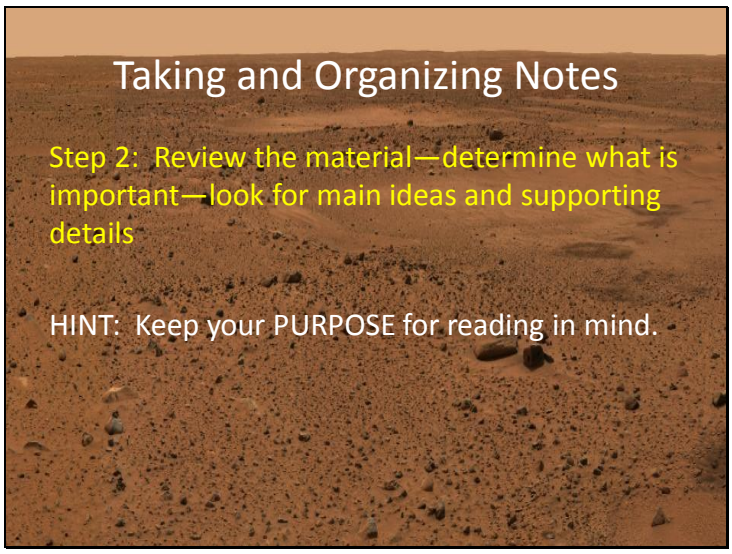
Slide 14



During your first reading of the text, don't take any notes at all. Instead focus on understanding what you are reading. Remember if you have difficulty understanding the text, try one of the following ideas:

- Re-read the text
- Use a dictionary to look up words you don't understand
- Ask a friend to read the section to see if he/she can help you understand
- Ask your teacher for assistance.

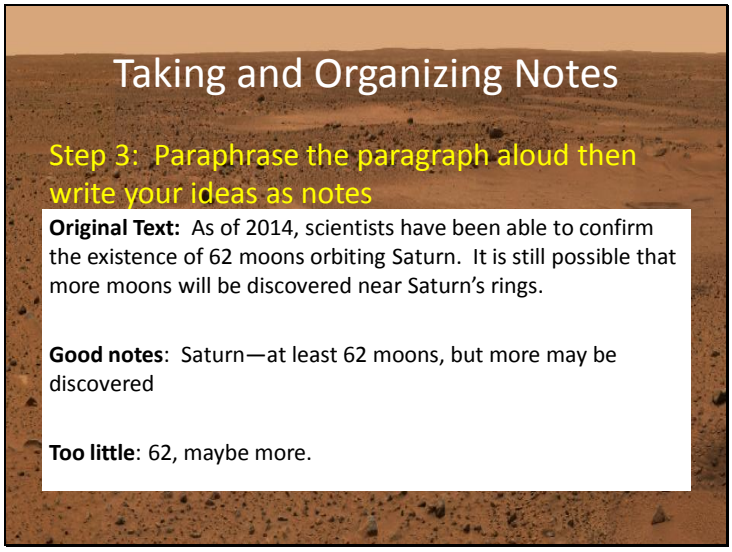
Slide 15



We only want to take notes on important things that help us to answer our research questions. If you think about your PURPOSE, the reason you are reading the article, this will help you figure out what information is IMPORTANT. You can also use the other strategies from our Determining Importance Toolbox:

- Using your background knowledge
- Where the information is located in text
- Which ideas are restated in the text several times
- Distinguishing what is important from what is interesting
- Rereading text as necessary
- Using text features

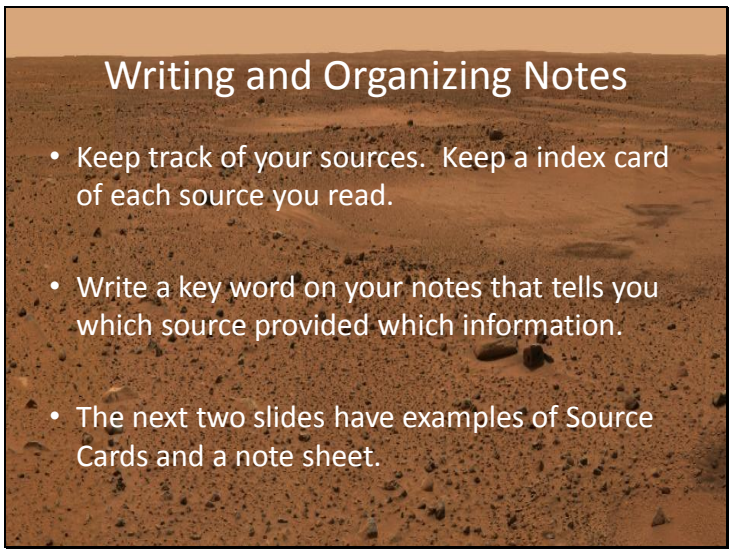
Slide 16



Now that you know what is important and how this information relates to your purpose, you need to decide what to write down. You won't want to write everything down as it will take you way too long. Moreover, if you accidently write down an author's words without giving them credit, you can be accused of plagiarism.

So to avoid these problems, you want to think about how to say what you have learned in very few words. You need to write enough so that you can later remember why you wrote down the information. Let's look at this example. Copying the original text would take too much time. If you simply wrote "62 maybe more", when you return to your notes several weeks later, you might not remember that you were taking notes on Saturn's moons. For that reason, the line labeled good notes has just enough information. When we reread these notes (even several weeks later), we will know immediately why we wrote down this information.

Slide 17



You will need to organize your notes. Part of your Mars Rover Guide is a bibliography of the sources you used for your research so keeping track of this information will make that job easier.

Let's take a look at the source cards.

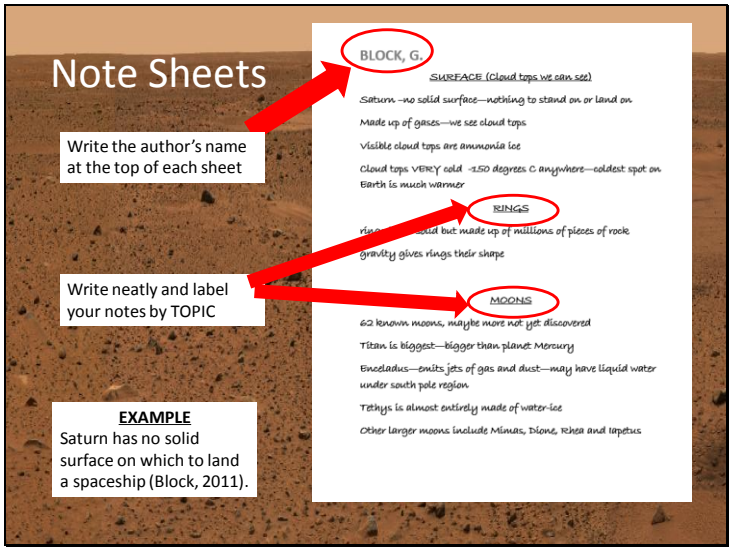
Slide 18

Keep one card for each source. Put the author's name at the very top, last name first. This will make it easy for your to alphabetize your list to write your bibliography.

If there is no author, write the title of the book or the webpage at the very top.

TEACHER: As part of the resources for this lesson, we have included a reference sheet titled "Source Cards". It lists 4 different types of citations that your students are likely to encounter as they do their research. You may reproduce this for your students or you may wish to blow this up to poster size and display it in your classroom.

Slide 19

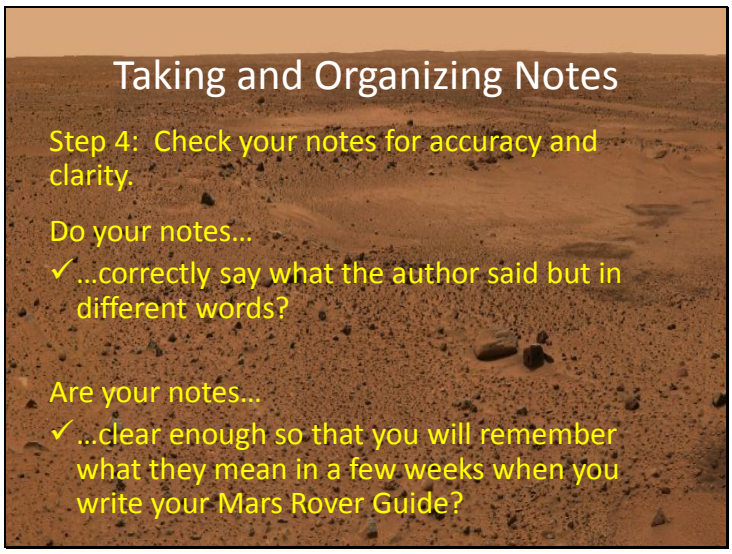


This slide has 1 CLICK of animation.

Organizing your notes is just as important as knowing what information to write down. At the top of each sheet of paper write down the name of the author (or title) from which the information came. Use only 1 source per sheet of paper.
Organize your notes by TOPIC so you can quickly locate what you need. Write neatly and clearly. Your notes are no good if you cannot read them later. Do not copy from your source, paraphrase what the author says and be brief. Say just enough so you remember why you wrote down your notes.

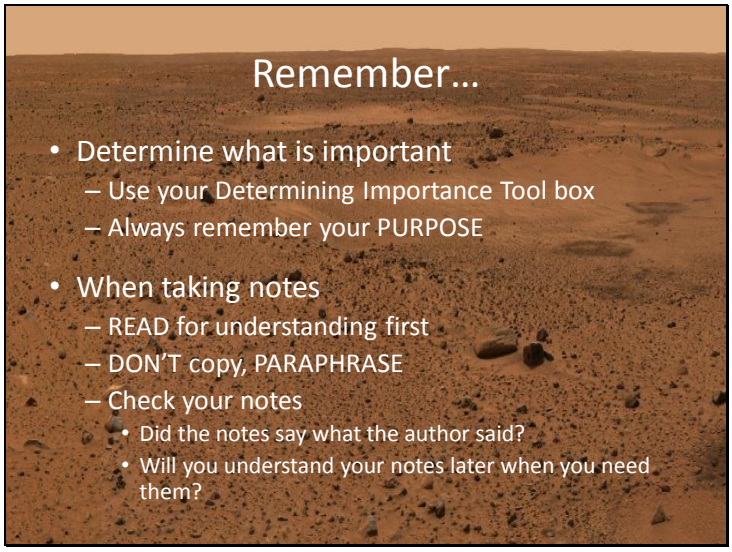
Later, when you use some of the information from the author in your writing, such as when you write your Mars Rover Manual, you give him credit by writing his last name and the year of the work in parentheses in your paper. Here is an example of how you would give credit to the author of the notes we took for this page. CLICK to bring up animation.

Slide 20

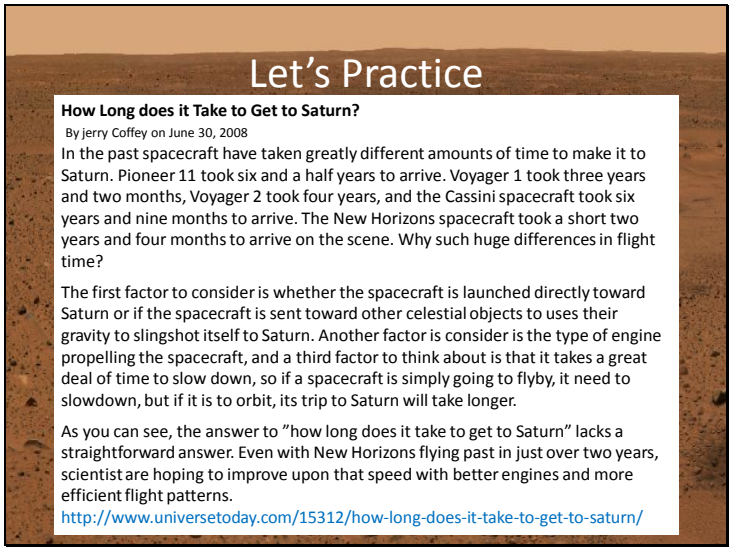


Once you have written your notes, you will want to check them over to ensure that what you jotted down accurately reflects what the author said in the source material. You also want to make sure that in a few weeks when you write your Mars Rover Guide, the meaning of the notes you took will still be clear to you. It is a good idea to check with another member of your team to make sure he or she understands your notes the same way you understand them. If not, rewrite them to avoid confusion.

Slide 21


Remember…
• Determine what is important
– Use your Determining Importance Tool box
– Always remember your PURPOSE
• When taking notes
– READ for understanding first
– DON'T copy, PARAPHRASE
– Check your notes
• Did the notes say what the author said?
• Will you understand your notes later when you need them?

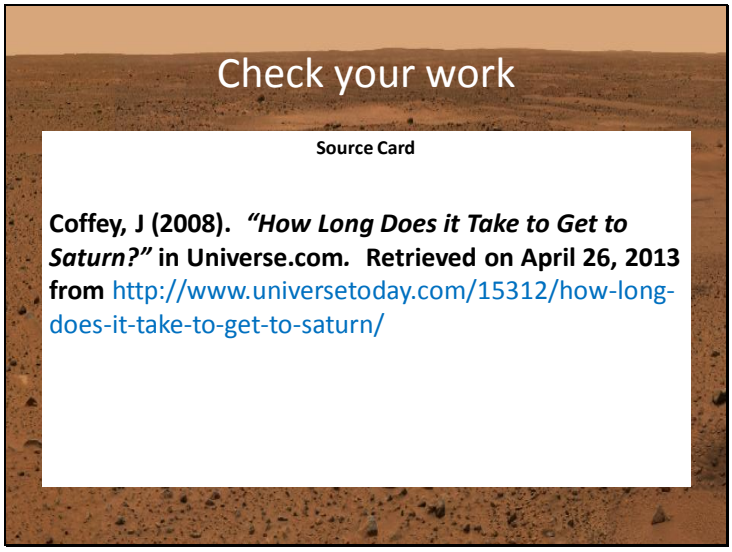
Slide 22



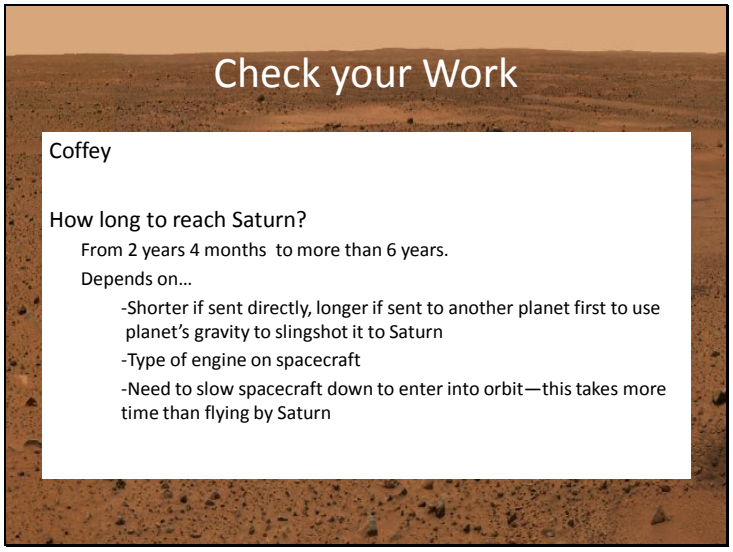
Suppose you were researching how long it would take a spacecraft to travel to Saturn and you found the following article. Using what you have learned so far, create a source card and take notes from this article.

Teachers: Distribute an index card and a sheet of lined paper to each student (or team). Allow your students a few minutes to create their card and notes. Monitor their work and make suggestions. Then have them check their work on the following slide.

Slide 23


Check your work
Source Card
Coffey, J (2008). "How Long Does it Take to Get to Saturn?" in Universe.com. Retrieved on April 26, 2013 from http://www.universetoday.com/15312/how-long-does-it-take-to-get-to-saturn/

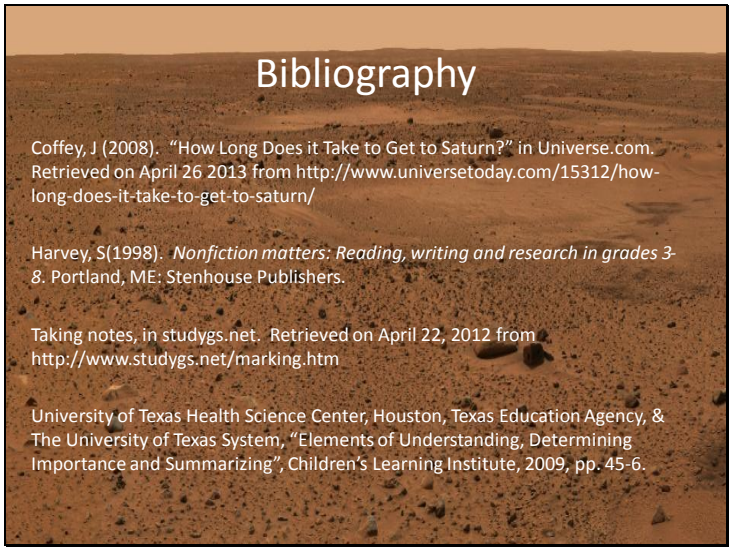
Slide 24


Check your Work
Coffey
How long to reach Saturn?
From 2 years 4 months to more than 6 years.
Depends on…
-Shorter if sent directly, longer if sent to another planet first to use planet's gravity to slingshot it to Saturn
-Type of engine on spacecraft
-Need to slow spacecraft down to enter into orbit—this takes more time than flying by Saturn

Slide 25

Allow students to ask any questions they may have about determining importance and note-taking.

Slide 26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Harvey, S(1998). *Nonfiction matters: Reading, writing and research in grades 3-8*. Portland, ME: Stenhouse Publishers.
Taking notes, in studygs.net. Retrieved on April 22, 2012 from http://www.studygs.net/marking.htm
University of Texas Health Science Center, Houston, Texas Education Agency, & The University of Texas System, "Elements of Understanding, Determining Importance and Summarizing", Children's Learning Institute, 2009, pp. 45-6.