

Space

Grade Level: 9-10

Overview	The purpose of this lesson is to actively engage students in an explanation of space as a whole. It is important for students of this age to understand the solar system and Earth's place in it. To do this, students will receive information and view videos along these lines.
Objectives	At the completion of this activity, students should be capable of: <ul style="list-style-type: none">• Explaining Earth's seat in the universe and the importance of exploring the unknown of space
Materials	<ul style="list-style-type: none">• A map or globe of Earth• A map or visual aid that shows the layout of the planets in the solar system• Clips from movies that show views of Earth from space• Accompanying PowerPoint presentation for easier notes (optional) including video examples of space and Earth's place such as:<ul style="list-style-type: none">○ http://www.twitvid.com/0FK1Z○ http://www.twitvid.com/JDT70• And pictures incorporated into the PowerPoint such as: 

Procedures

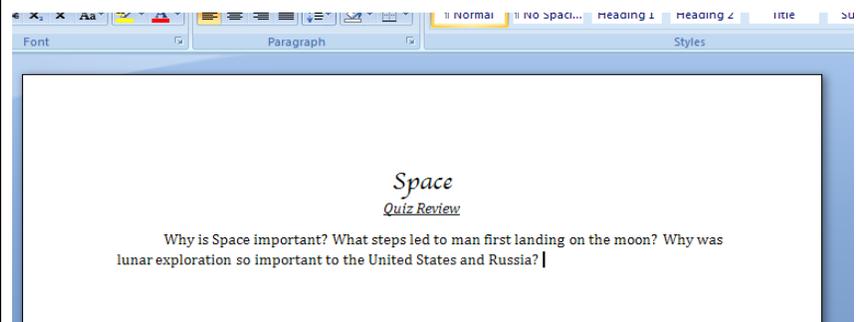
1. Before beginning the lesson, it is important to orient students about the importance of learning the layout of the universe. While it may not seem significant to them, it is important that they understand how the universe operates as a whole.
 - a. When discussing the universe, it is not unheard of for students to become mildly confused, especially given the sheer expanse of the universe.
 - b. In order to orient students, use the images of the layout of the solar system to show students how the universe is set up. It is important when showing this that students understand exactly how far the distance is between Earth and the other planets.
2. Following step 1, it is important to briefly explain the different planets and how Earth appears from space. To do this, utilize the first TwitVid video (see materials for the link) in order to show how weather and the planet look from space.
 - a. Using your PowerPoint presentation, establish the basic information about planets such as temperature, materials present, etc.
3. In order to incorporate history into this lesson, it is possible for you to continue on by establishing the importance of space. Here it is possible to move onto lunar discussions and from there it is more than possible to talk about NASA, the Cold War, and Neil Armstrong.
 - a. By taking this route, the videos are brought into context and the basic idea of the lesson plan is given a frame of reference for students to focus on.
 - b. Students will be able to briefly discuss the material you are covering and should be able to follow along with the lesson plan based on the information they have learned in grades prior to this one.
 - c. To incorporate geography into the lesson plan, you can use the TwitVid videos to show how Earth looks from space. You can then discuss the monuments that can be seen from space.

Evaluation

In order to ensure that students have grasped the point of the lecture, it is important to give some sort of assessment. The easiest way to judge whether they understand or not is to hand out a quick quiz, perhaps one short answer/essay question, about the material. An ideal question would be along the lines of “Why is space important?”

Though the question may seem vague, this is a good way to grasp how much of the lesson students have absorbed. While it is difficult to judge whether students can fully grasp the content, students should be able to give 2-3 main points from the lecture about space and Earth.

Ex:



Sources:

- <http://www.twitvid.com/0FK1Z>
- <http://www.twitvid.com/JDT70>
- http://www.bing.com/images/search?q=solar+system&FORM=IGRE#focal=26ec391cc0fbfeeb918847cc9d99ce48&furl=http%3A%2F%2Fdecorplace.com%2Fd5-images_murals%2Flargeimages%2Fsolar-system-mural.jpg