

GED 2002 Teachers' Handbook of Lesson Plans

Area/Skill - Social Studies	Cognitive Skill Level - Analysis	Correlation to Framework - 02.11	Lesson Number - 12
<p>Activity Title - Lunar Landing - Fact or Hoax? You Decide.</p> <p>Goal/Objective</p> <p>To generalize information about the U.S. moon landing and conduct a class debate to verify the validity of the event.</p> <p>Lesson Outline Introduction</p> <p>The citizens of the U.S. experienced one of the most phenomenal happenings in our history on July 20, 1969. This event changed our whole country. It was one of the most spectacular events to ever take place; however, this event has been questioned as to its validity almost from the beginning. Did it really happen?</p> <p>Activity</p> <p>Students will be supplied with a handout that explains both sides of the issue on the lunar landing. The class will be divided into two groups. Each group will need to review and discuss the information. Then the class will conduct a debate on the issue of the truth about the lunar landing. Use information from the website "The Truth is Out There" at http://www.apollo-hoax.co.uk/homepage.html.</p> <p>Debriefing/Evaluation Activity</p> <p>Have the students discuss why it would be important to know if there truly was a lunar landing. Discuss the need for the students to know that they can trust our own governmental agencies and believe in what they tell us to be factual when dealing with historical events.</p>			<p>Materials/Texts/Realia/Handouts</p> <ul style="list-style-type: none"> • Handout – Lunar Facts/ Lunar Hoax Information • Computer/Internet connection • Books on the lunar landing • <i>The truth is out there! website - http://www.apollo-hoax.co.uk/homepage.html</i>
<p>Real-Life Connection</p> <p>Many times in history, events are reported to have happened. Then we begin to hear that those events never really happened. Can you remember any events in history, our society or even in your own community that first you heard happened only to have someone come out and say it was all a hoax? An example in the music world was that Milli-Vanilli was an actual singing group!</p>			<p>Extension Activity</p> <p>Have the students conduct a web search on information to match their belief on the lunar landing being either a fact or a hoax. Have the students share some of the information that they found.</p> <p>ESE/ESOL Accommodations</p> <ul style="list-style-type: none"> • Highlight important concepts and facts. • Allow students to complete activities in writing or orally. • Provide conversational cues to help those students who need help to participate in the debate.

GED 2002 Teachers' Handbook of Lesson Plans - Script

Area/Skill - Social Studies	Cognitive Skill Level - Analysis	Correlation to Framework - 02.11	Lesson Number - 12
<p>Activity Title - Lunar Landing - Fact or Hoax? You Decide!</p> <p>Introduction</p> <p><i>Ask:</i> How many of you have heard about the U.S. lunar landing? What happened during this big event? Students should provide any details that they might know about the event.</p> <p>Main Activity</p> <p><i>Say:</i> Today we are going to look at the U.S. lunar landing. There are some people who think this event never really took place, but we are told by our own governmental agencies that it really did. Give the students the handout that provides views on both sides of the issue. Divide the class into two groups and assign one group to study the hoax side and the other group study the fact side. Have the students debate the issue.</p> <p>Closure/Conclusion</p> <p><i>Ask:</i> How has today's debate changed your thinking about the U.S. lunar landing? Did you learn anything that you did not know before?</p> <p>Follow-Up Lessons/Activities</p> <p>Have the students go to the library to research other historical events that have ended up being called a hoax. They can use either books, back issues of magazines or newspapers. Ask the students if any of this research change their minds about this event. Have them share their opinions with the class.</p>			

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Social Studies Lesson Plan 12 Handout

Lunar Landing Facts versus Lunar Landing Hoax

Lunar Landing Facts

- There is a picture of the Earth rising as seen from the moon.
- Telecast of the landing was shown to people around the world.
- Astronauts left footprints on the surface of the moon and took pictures of them.
- President Nixon talked to Armstrong and Alden by radio when they were on the moon.
- Lunar samples were brought back from the surface of the moon.
- Astronaut James Lovell wrote that, "I personally made two trips to the moon ... You heard my speech, and I am not accustomed to making up stories for my audience." Lovell said, "We spent a lot of time getting ready to go to the moon. We spent a lot of money, we took great risks, and it's something everybody in this country should be proud of. The problem is, you see that movie "Capricorn One" and now you think that's really the way it goes."
- *Flags can ripple in a vacuum. And the astronauts were moving the pole and vibrating the ground near the flag. The "waving" is explainable as rippling.
- The images bled during development. It's an overexposure effect.
- Says Phil Plait of Bad Astronomy.com: "You want to take a picture of your fellow space traveler. The Sun is low off the horizon, since all the lunar landings were done at local morning. How do you set your camera? The lunar landscape is brightly lit by the Sun, of course, and your friend is wearing a white spacesuit also brilliantly lit by the Sun. To take a picture of a bright object with a bright background, you need to set the exposure time to be fast, and close down the aperture setting too; that's like the pupil in your eye constricting to let less light in when you walk outside on a sunny day. So the picture you take is set for bright objects. Stars are faint objects! In the fast exposure, they simply do not have time to register on the film."
- The pictures of the lunar lander show no blast crater. The LEM had to fire its rockets on landing, and a huge crater in the moon dust should have been blasted out.
- Plait points out that the LEM could not have just landed at full throttle, that it throttled down to one third of its full power on landing. Furthermore, given the diameter of the engine nozzles and the thrust of the engines, it was exerting only about 1.5 pounds per square inch on the ground as it landed. "Three thousand pounds of thrust sounds like a lot, but it was so spread out it was actually rather gentle."
- Capricorn I was shot in 1978, 9 years after man landed on the moon. The movie was made to look like the real thing, not vice versa!
- A 1999 Gallup poll showed that 94% of Americans believe that we did land on the moon.

Lunar Hoax Information

- On the moon, there is only one light source, the sun.
- If the sun is the only light source used by NASA on the moon, some of the shadows should not be as long as the other shadows.
- Stars are not seen in NASA Moon photographs. The astronauts do not mention that stars are visible when out of the earth's atmosphere.
- Temperatures on the moon's surface in the daytime ranges from 260° F to 280° F. This is too hot for film to survive. The film will crinkle up into a ball.
- A radiation belt named the Van Allen belt is located about 20 miles from Earth. Humans cannot get through this belt. It has 300+ rads of radiation. You would have at least 4 feet of lead surrounding you to be able to survive it.
- The millions of micro-meteors traveling at speeds up to 6000 MPH would tear the space ships to pieces.
- If you look at the pictures/video of people on the moon, you will never see stars in them.
- The 300-pound thrust of the LEM as it set down on the surface should have created a massive hole under the Lunar Module. The ground under the module does not show this.
- The U.S. flag planted on the moon is seen as "waving" in video clips. Since the moon has no atmosphere, there should be no air to move the flag.
- Camera crosshairs appear to be behind lunar features.
- Pictures of the moonscape do not show any stars in the background. Since there is no air on the moon, stars should be plainly visible.
- The pictures of the lunar lander show no blast crater. The LEM had to fire its rockets on landing, and a huge crater in the moon dust should have been blasted out.