



AUM

American University Of The Middle East

HOW TO USE SIX THINKING HATS METHOD

NASA Project: Life on Mars versus life on Earth

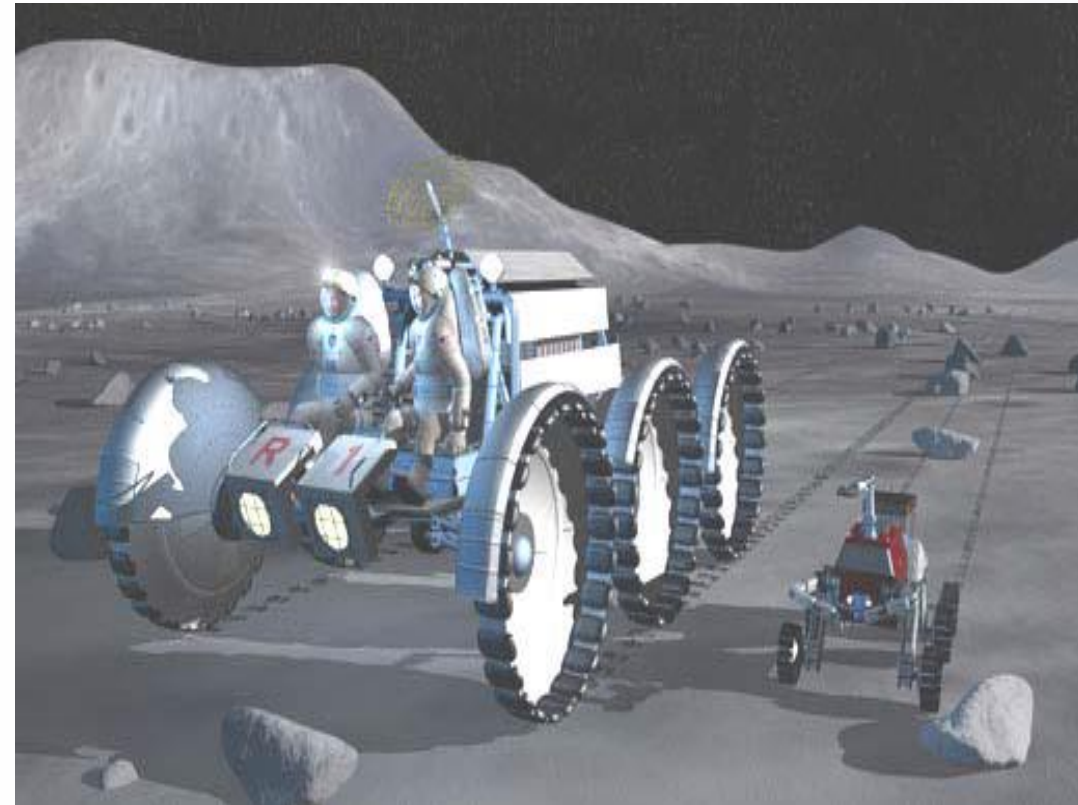
BACKGROUND INFORMATION

In 2004, The United States Government announced plans to **return humans to the Moon**, and to eventually **send humans to Mars**. This was quite a **change in policy**, as NASA's Solar System exploration has **only** been done by **robotic missions since the 1970s**.

As you might expect, this **plan** has many **supporters** and **critics**.

In this activity, **students** will **consider** this issue from the point of view of a **government policy advisor**.

They will **brainstorm** and **discuss** the issue **using the six-thinking hats** method (developed by Dr. Edward De Bono).



CREDIT:NASA

WHAT TO DO

- **Think of the following scenario:**

‘NASA and many other international space agencies and governments intend to cooperate to send humans to the Moon to live, conduct experiments and help plan for other missions to Mars and beyond.

Sending humans to the Moon offers a great opportunity for advances in science and technology. However, many argue that the amount of money required for this project would be much better spent on sustainable technology here on Earth, to combat issues such as water shortages, poverty and climate issues.

The Government has been asked to join this group and provide money and research to help send humans to the Moon. **It is your group’s job to advise the government:**

Should we send people to live on the Moon, or should we spend the money on much needed projects on Earth?’

STEPS TO FOLLOW (BEFORE THE HATS)

1. Creating groups.
2. Write down all the information you need to search to make a decision. You may want to allocate different research topics to different group members.
3. Take your time until next meeting to study the scenario, using library or online resources.
4. With research in hand, you will gather back into your groups.

STEPS TO FOLLOW (USING THE HATS)

1. Implementation of Six Thinking Hats method
2. Starting with the white hat, groups should spend the time indicated in Table 1, discussing and writing down notes under each hat on the worksheet. The instructor should keep time, and encourage groups to stay focused on the particular hat.
3. After the students have worked through the six-hats, each group will present their findings (Blue Hat) and their reasoning to the rest of the class.
4. Discuss whether the thinking hats process changed their mind about the topic.

Six Thinking Hats method (Time)

❑ Suggested time interval to be spent on brainstorming for each thinking hat color

Thinking hat color

■ White Hat:

■ Red Hat:

■ Black Hat:

■ Yellow Hat:

■ Green Hat:

■ Blue Hat:

Suggested time

10 min

5 min

7 min

7 min

5 min

5 min

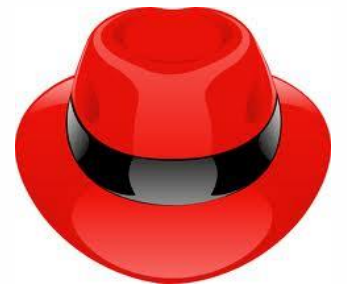


White hat: List the information, facts and figures about the issue. (10 Mins)

- NASA initiated a **new plan** to explore **deep space**.
- NASA's Solar System exploration has only been done by **robotic missions** since the **1970s**.
- NASA wants to **colonize moon** and **mars**, they want to send humans.
- This **plan** has many **supporters** and **critics**.

Red hat: What are your opinions and feelings about the issue? (5 Mins)

- Sending humans to the Moon offers a great opportunity for advances in science and technology.
- The amount of money required for this project would be much better spent on sustainable technology here on Earth, to combat issues such as water shortages, poverty and climate issues.
- I think this project will fail.
- I think this project has a huge potential.



Green hat: What are the alternatives or new ideas relating to the issue? (5 Mins)

- NASA should experiment first to see if the plan works.
- They can send animals first before sending humans.
- More developed robots to prepare conditions for human arrival.
- Send some shuttles to other planets to see if there's life.
- We should observe mars from earth.



Black hat: What are your criticisms, judgments and negatives about the issue? **(7 Mins)**

- It costs too much money to explore space.
- Robotics missions may not be sufficient to explore.
- Space is a mystery, we don't know what will be the result.
- Too much time, energy, money etc.
- Safety is a big issue.



Yellow hat: What are the positive aspects of the issue? (7 Mins)

- If mission succeeds, we will have other option(s) other than earth.
- It will help us for overpopulation on earth.
- We may find new elements that can help solve energy problems on earth.



Blue hat: Conclusion (5 Mins)

Based on all of the issues and ideas, what do you think is the best response to the question?

- We advise the government to support NASA for deep space exploration which can also help solve many problems on earth and give us other option(s) other than earth.

