

CHOOSE YOUR WORDS WISELY - Mars

Background Information

Communicating with astronauts or scientific equipment on another planet is difficult. There may be interference from cosmic phenomena or planetary atmospheric conditions as well as a time delay due to the great distance the message must travel. This activity will simulate the difficult communication that may cause problems during human exploration of other planets in our solar system.

Students will only be allowed to transmit messages that contain very few words. Limiting the number of words a student uses encourages them to use only critical information that applies to the situation. Students will also be challenged to think under pressure, as they will be timed; to speak clearly, as any miscommunication can be dangerous; and to work together to devise methods of communication that lead to success.

Objectives

Upon completion of this lesson, students will be able to:

- communicate messages effectively
- practice critical thinking skills

Instruction Time

30 minutes

Materials

2 Grid maps for each team of 4
Colored pencils
1 Die for each team of 4
Game piece (optional)
Clipboards (optional)
Walkie Talkies (optional)
Timer

Procedures

1. Introduce the activity with the following script:
A team of hikers has been investigating the Martian landscape for several hours. The hikers radio in a distress call reporting that their EGS (Electronic Guidance System) has malfunctioned, and they are disoriented. The Mars Control team is charged with returning the crew safely to Mars Base. The communication system that works as part of the EGS is malfunctioning as well, and it has been determined that approximately only 3 seconds of each transmission is coming through

clearly. This development limits the Mars Control to instructions of only 3 words maximum.

2. Split group in half and separate students or place them behind dividers. They should not be able to see the other team's grid map.
 3. Designate one group as the Hiking Team the other as Mars Control.
 4. The hiking team will choose a starting point by rolling the die. The number that appears is their starting position. The hiking team should mark this position with a colored pencil or a game piece and be sure not to reveal this location to the Mars Control team.
 5. Set the timer at 10 minutes and instruct the students to begin.
- IMPORTANT: Transmissions can be in the form a questions or statements but must never be more than three words.**
6. Teams should elect a spokesperson and decide what will actually be "transmitted" before a message is sent.
 7. The hiking team will start by describing their location WITHOUT USING THE NUMBER.
 8. The Mars Control team will need to respond with a question for clarification or instructions for moving the hiking team safely back to the base.
 9. Play continues until the hiking team lands on a black square (30 second delay), or an energy boost (gets to use one 5 word sentence.)
 10. Play is completed when the Mars Control team has safely returned the hiking team to the Mars Base.
 11. Keep track of the completion times to use as comparison if the activity is repeated.