

MODAL VERBS & ADVERB CLAUSES OF REASON: STRANDED ON THE MOON

In typical English sentences, we may use several grammar structures at the same time. One example of a grammatical form used in conjunction with other forms is modal verbs. Modal verbs are often used to give advice or opinions. For example:

We should go to a restaurant.

However, this advice is too simple and direct. When advice is given in English, the expectation is that a reason is also provided. One grammatical structure that is often used to explain advice is an adverb clause of reason. For example:

We should go to a restaurant because we are all hungry.

When combined, these two grammatical structures can allow students to give advice and explain their reason for that advice.

In this activity, students will practice both modal verbs of advice and adverb clauses of reason. It can be difficult for students to think of advice and reasons for that advice without a clear context. In this week's Teacher's Corner our context is a space mission gone wrong. Students will give advice and reasons to help their team members who have been stranded on the Moon. The activity below is a modified version of a United States National Aeronautics and Space Administration's (NASA) teambuilding exercise.

In this activity, students are part of a space mission travelling to a science base on the Moon. During their descent to the surface of the Moon, their spacecraft crashes 80km from the Moon base. Now they must examine their supplies and decide which materials they will need to survive the 80km journey to the moon base.

The exercise was designed to test the ability of astronauts to think creatively and work together as a team. Each item in the worksheet below has a primary use but can be used in other ways as well. Encourage your students to think creatively about all of the items. For a list of suggestion on ways the items can be used, see Appendix B.

LEVEL

Upper intermediate and above

LANGUAGE FOCUS

- Speaking (primary focus)
- Writing (secondary focus)

GOAL

Students will use modal verbs and adverb clauses of reason to discuss what survival tools they will need to survive on the moon.

MATERIALS

- Teacher: whiteboard or chalkboard; markers or chalk; tape
- Students: pencils or pens, writing paper

PREPARATION

- Print enough Stranded on the Moon worksheets for each student in class. Print one copy each of the images in Appendix A to place on the wall or chalkboard.

PROCEDURES

Warm Up

1. Place on the board the two pictures in Appendix A
2. Ask students some questions to elicit the vocabulary: Astronaut, Moon
 - a. What do you call a person who works in space? (Astronaut)
 - b. Is this astronaut on Earth? (No)
 - c. Where is the astronaut? (the Moon)
3. Next, write on the board: An astronaut should be _____
4. Ask the students what characteristics an astronaut needs. List the characteristics the students name on the board.
 - a. An astronaut should be _____.
 - i. Brave
 - ii. Strong
 - iii. Smart
5. Once students have listed some characteristics, ask them why astronauts should have these characteristics. Tell them to form pairs or small groups and think of reasons why astronauts should have the characteristics the class listed.
6. While the pairs/small groups brainstorm ideas finish the *An astronaut should be* ____ sentence from above with *so/because* _____.
7. After the pairs/small groups have generated ideas, have them share ideas with the class. Write the ideas on the board. For example:
 - a. An astronaut should be brave because they will be far from home.
 - b. An astronaut should be smart, so they can solve problems.
8. After the pairs/small groups have presented their ideas, tell them that today they are going to be astronauts! Tell them the goal of today's activity is to see if they can be great astronauts!

Moon Mission: A Crash Landing

1. Have students combine their pairs/small groups to form larger teams of 4-5 students. Tell the students that in this activity they will be astronaut teammates. With their teammates they are travelling to the Moon.
2. Explain to the students that two days ago they left Earth to travel to a research base on the Moon. As they began to land on the Moon, they lost control of the spacecraft and crashed 80km

from the Moon base. Now they must use items from their crashed spacecraft to help them reach the Moon base.

3. Next, give each student a copy of the Stranded on the Moon worksheet. Tell the students that first they should work alone to complete the worksheet. Remind them that good astronauts should be able to work independently, so no talking for now!
 - a. On the worksheet are fifteen items. Students should list these items in order of importance from 1-15. One being most important and fifteen being least important. Also they should provide a reason for the rank they assign each item.
 - i. Note: this part of the activity could take some time, if more time is needed this could be assigned as homework and the activity continued in the next class.
 - ii. For Moon facts and suggestions on how items could be used, see Appendix B.
 - b. Encourage the students to use the grammar structures practiced in the warm up when they list the reason for each item's rank.
 - i. For example: We should take the oxygen tanks, so we have air to breathe.
 - ii. For items students think are unimportant, encourage them to use the negative form. For example: We should not take matches because there is no air on the Moon to make fire.
4. Once students have finished their list and reasons, have them share their ideas with their team.
5. Tell the team that they now must make a final team list. However, the team may only take the items listed in the top ten. They must leave five items at the crashed spacecraft. Students should use the grammar forms practiced in class to argue for the items they consider to be the most important.
6. Once each team has finalized their list, have them report to Mission Control (you!) on the items they plan to take and why.
7. Finally, have each team share their final list and reasons. If time permits have the whole class come together and make one final class list.

Optional Expansion Activity:

- Conditionals are another grammatical structure that pairs well with this activity. Students can present their ideas in grammatically complex ways: *We should take rope, so we can tie things. If we tie the parachute with rope, we can make bags to carry items.*
- This activity can be extended into a writing activity that can be done in class or as homework. Have students, alone or in teams, create a writing journal that begins with the following sentence:

With our items prepared, our team began the 80km trip to the Moon base.

Have the students describe their journey to the Moon base and how they used each item to survive!

Encourage your students to learn more by having them visit the following websites:

[Apollo Archives](#)

This website contains a collection of photographs from the NASA lunar missions.

[Moon Base Alpha](#)

In this game by NASA, players work to fix damaged equipment at a lunar research station.

americanenglish.state.gov

STRANDED ON THE MOON: STUDENT HANDOUT

The year is 2025 and you are part of a four-member team traveling toward the Moon. Suddenly, you notice there is a problem with the controls of the spaceship. You land 80 kilometers from the lunar base. Now you and your team must travel the 80km to reach the moon base and safety! Decide which items you think the team should take on the trip. Make a list of the items from most important to least important. Once you have made your list, talk with your team and make a list for the team! Good luck astronaut!



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Life Raft - Rank: _____

A self-inflatable floatation device

Reason:



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Two 45kg tanks of oxygen - Rank: _____

Oxygen for breathing

Reason:



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Space blanket - Rank: _____

A sheet of metallic material used to keep warm

Reason:



©Brittany/Shutterstock

Solar powered flashlight - Rank: _____

Portable lights powered by solar batteries

Reason:



©Vectors1/Shutterstock

Signal mirror - Rank: _____

A handheld mirror

Reason:



©Sirapob/Shutterstock

38 liters of water - Rank: _____

A container of water

Reason:



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First aid kit - Rank: _____

Contains basic emergency items

Reason:



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Food concentrate - Rank: _____

Dehydrated food to which water is added

Reason:



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Magnetic compass - Rank: _____

A tool to tell directions

Reason:



©warner/Shutterstock

Solar-powered radio - Rank: _____

A communication tool powered by the sun

Reason:



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Map of the Moon - Rank: _____

A map showing the Moon's terrain

Reason:



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15 meters rope - Rank: _____

Manufactured rope

Reason:



©montego/Shutterstock

Parachute - Rank: _____

A large piece of silk cloth

Reason:



©Anteromite/Shutterstock

Tape - Rank: _____

Materials to repair tiny holes in fabric

Reason:



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Box of matches - Rank: _____

Wooden sticks with sulfur-treated heads

Reason:

APPENDIX A:



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APPENDIX B:

In the Stranded on the Moon activity students are challenged to use items in new and creative ways. During this activity you can teach students some basic information about the moon that may help them in their decision on what to take on the journey.

Moon Facts:

- Unlike Earth, the Moon has an extremely thin atmosphere. Almost none! That makes using matches impossible.
- The Moon has a very weak magnetic field. A strong magnetic field is necessary for a compass to work.
- Observing the Moon, we can see it go through phases from Full Moon, where the whole Moon is visible, to the New Moon when the whole Moon is unlit. This is because it takes the Moon about 28 Earth days to go through a complete day-night cycle.
- The temperature on the Moon can be 120 Celsius during a Moon day. During a Moon night temperatures can be as low as -230 Celsius!
- The gravity of the Moon is much lower than on Earth. As a result, weights are much lighter on the Moon. A person weighing 100kg on Earth weighs only 16kg on the Moon.

Here are some possible ideas for how some of the items could be used. These are just suggestions, and your students may think of many more ideas. Encourage them to be as creative as possible!

Life Raft

- Carry supplies and pulled like a wagon – less gravity means less weight so it won't be too heavy!

Two 45kg tanks of oxygen

- Used as propellant, like a jetpack – however this would waste precious oxygen!

Space blanket

- Wrapped around the water container to keep the water from freezing or boiling
- As a signal material because it is shiny – as a result the signal mirror could be left behind

Solar powered flashlight

- Used as a beacon – without trees and obstacles the light could be seen from far away
- Used as a signal to get the attention of the Moon base so the mirror could be left behind

Signal mirror

- As a flashlight – light from the Sun could be redirected to a specific spot

38 liters of water

- The water will be needed by the astronauts for drinking
 - Spacesuits have a special device to connect to the water container. Remember you can't take off your space helmet on the Moon because there is no air!

First aid kit

- Adhesive bandages could be used to patch small holes making the tape unnecessary

Food concentrate

- The food will be needed for the astronauts to eat

Magnetic compass

- With no magnetic field on the Moon, the compass is not useful

Solar-powered radio

- Used to communicate with the Moon base

Map of the Moon

- To help the team travel in the correct direction

15 meters rope

- Tied to the raft so that the raft can be pulled
- Used to create straps so items can be carried by the astronauts

Parachute

- Used to create a tent to block the sun during rest periods
- Used as material to create bags to carry items

Tape

- Instead of taking the first aid kit, tape could be used to wrap injuries
- Could be used to attach the space blanket to roof of the raft – this might make it easier to see from the Moon base

Box of matches

- With no atmosphere on the Moon, matches are not useful