Adaptation of the NISE Network’s Moon Adventure Game to a moon base murder mystery game inspired by Among Us.

*This game was developed as an adaptation of the NISE Network’s Moon Adventure Game. It is inspired by the video game Among Us. Templates and task instruction pages will be added to the end of this document.*

Duration: 1hr (play time set up/preparation may take longer)

Players: 10-25

Grade: 5th grade and up

**Note to facilitators**

We recommend familiarizing yourself with Among Us by Innersloth on any media platform either by playing the game yourself, or by watching a tutorial video prior to leading a game. The rules and mechanics can be adapted to each group and lessons you are teaching. Examples in this set up are designed to incorporate the NISE Network’s Moon Adventure Game but the tasks can also be adapted to other subjects such as ecology and history. This program would make a nice review activity for classroom settings. (Your imagination is the limit of what you can set up with this program).

**Object of the Game** – Crewmates must complete their tasks before the imposters murder the entire crew.

**Components (Must be prepared before gameplay)**

**Tasks - (Minimum of Five)** -A good task is a simple activity that a player can do in less than 5 minutes. To limit talking between players, tasks must be simple enough for players to work through. If necessary, discussion can be permitted but limited to tasks and not speculation about the imposter. Players must move between tasks independently and not travel in groups. Any number of tasks can be arranged. Tasks can be altered based on interests and the age group that is participating in the game. If locations have exceptionally large groups, more tasks can be added to allow for more space between players.

*Tip- It is a good idea to have a sign at each station describing the station and how to complete the task. This way players who forget about tasks during the introduction to the game can remember how to complete the tasks.*

* + **Sample testing**- Using vinegar, baking soda, and water, create three or four sets of different ‘samples’ with varying pH levels (pH is a measure of how acidic). Prepare approximately two cups of each sample at a time to insure consistency. Using Microcentrifuge tubes, divide the batch into single use samples. Label each tube with a sample number so that players don’t confuse which sample they are testing. Each group of tubes can be placed in larger containers to keep them organized. PH strips are laid out at the task station for use. The goal of the task can change; for example, first game players find the most acidic sample and the next the neutral sample.

*Tip -Each player must test each sample so be certain that you have enough testing strips for the game*.

* + **Telescope data**- Create a composite of the supernova remnant, Cassiopeia A! Players must complete an image of by combining the different wavelength overlays. This is created by printing the different wavelength images on clear sheets or transparencies (take extra care to be sure the multiple sheets line up). If the players are older, images of the Crab Nebula can be mixed in to give an extra challenge. This activity is based on the images provided by Chandra X-Ray Observatory website.

Images for Cassiopeia A can be found at <https://chandra.harvard.edu/edu/formal/composites/casa_overlays.html>. Images for the Crab Nebula can be found at <https://chandra.harvard.edu/edu/formal/composites/crab_overlays.html> .

* + **Seismic data**- Use the moon map board and location overlays from the Moon Adventure Game and place a removable sticker dot somewhere on the moon board. This dot should overlap with one of the overlays positions on the board. Players must identify which overlay location is closest to the dot that is on the board. *Make sure the dot is removable to not damage the board*. If there are repeat players, the dot can be moved to another location on the board.
	+ **Temperature log**- Use the map binder from the Moon Adventure Game and identify which map to use to identify temperature. Players must then identify the coordinates of the hottest and coldest points along the rim of the crater.
	+ **O2 (electrolysis)**- Use pieces of the Moon Adventure Game to gather ice blocks from a chest using grabbers. Players exchange the ice blocks for water to use in the electrolysis activity. This task is better if a facilitator can remain at the station to reset and hand out materials to players as they come by.

**Task Forms –** These are used to identify a player's role and keep track of the tasks they perform. A template will be attached to this document as a starting point to create and customize your own forms. Be aware that a task form is needed for every player. If the players discover who the imposters are, the game will end and another round can start. New task forms then need to be distributed to the players with different players as the imposters. Note the number of players, if there are only ten players there should only be two imposters. As the number of players grows the number of imposters can increased to keep the game going. For twenty-five players there should be no more than four imposters. Crew will need to write the results of their tasks on their task form to prove that they competed the task.

* + **Identifier -** Crewmate or Imposter will be listed at the top of each form and covered by a pocket fold.
	+ **List of Tasks –** Each form includes a list of all tasks to be completed by the player. The tasks can be listed in random order to keep players from moving in groups through the activity.

*Tip - Task forms must be made in advanced to hand out to all players. A template will be attached at the end of this document. Clipboards can be used to keep everything organized. Tasks can be swapped out for whatever the facilitator needs.*

**Death cards -** Death cards are small cards that can be tucked into the pocket at the top of task forms. The imposters use these cards to eliminate the crewmates throughout the game.

*Tip- The cards can be laminated to keep them in better condition as games are played. A template will be attached to the end of this document.*

**Sabotage events -** In the video game, Imposters can sabotage parts of the base to create confusion and allow them to pull off some fun kills. For example, imposters can turn out the lights or disable communications. For our real-life game, we can create events of sabotage. These are quick puzzles that the group works together to solve as fast as they can. The facilitator will sound an alarm signaling the start of the event. Players must quickly “fix” the sabotage before the imposters can use the confusion to kill players.

* + **Lights Sabotage** - An example of a sabotage event is a lights sabotage. Use the circuit activity from the Moon Adventure Game. Place the activity in a part of the room that makes the most sense for the space available. When the facilitator plays an alarm, the lights go off. If the game is being played outdoors or in an exterior room the facilitator can announce that the lights have been turned off, if the game is taking place in an interior room the lights can be turned off. *(Be sure to have a small light to prevent players from tripping over each other.)* Players must complete the circuit as fast as they can by gathering conductive materials. As an added difficulty, the players can only use items once. An option for this sabotage is to place specific lengths of wires around the play area. The players locate the wires to complete the circuit if they can find the wires quickly. The facilitator can wander around re-hiding the wires for the next sabotage event when players are working on tasks.

**Game Set up**

Tasks should be spread out to allow for the most amount of movement possible (within reason), this gives the imposters plenty of chances to hand out death cards without people seeing. The optimal set up would have multiple rooms or a large area with dividers to prevent players from seeing the entire play area. If there are not options available to divide the area, position the tasks so that players must turn their back on the group. Place the emergency meeting button in a central part of the play area so that there is enough room for all players to gather around it.

Prepare task forms ahead of time by covering the top part of the form and hiding the death cards in the pocket of the imposter’s forms. (Be sure to save a few death cards for the facilitator to hold onto.) Forms then can be put on a clipboard with a pencil.

**Game Introduction**- Introduce players to the game by setting the scene. A short introductory story is a good way to spark the imagination of the players.

Example story- The players are now the crew on the newly built moon base. The crew have daily tasks that must be performed. These tasks include scientific studies and daily maintenance of the base. Results must be recorded and sent back to HQ on earth (Hence the clipboards). But there was a spotty message from HQ that there could be imposters at the base, and they are highly dangerous. Daily tasks must be completed to keep the base operational, but the imposters must be found before the crew is murdered.

Introduce the players to the tasks. Go around and show the players where tasks are and how they can complete them. (if they forget how to complete a task, they can reference the sign at each station to remind them.)

State the rules to all players. (See below)

Hand out task forms and a pencil to each player. Have players spread out and secretively look to see if they are an imposter or crewmate. Imposters can leave their death cards in their task form pocket, or they can carry them wherever they can easily grab them for the game. When everyone is ready the facilitator can signal the start of the game.

**Rules**

* Players must keep their roles secret from everyone.
* There is no talking about who is an imposter or crewmate outside of meetings.
* If necessary, crewmates can quietly help other crewmates with tasks if they don’t understand the task.
* Crewmates must take death cards handed to them. (No pretending they didn’t see it to avoid death)
* When a crewmate receives a death card, they must count to 10 and then pretend to die. (Make it fun)
* All players must stop what they are doing and attend the emergency meetings to discuss who they think the imposter is. (This is the only time in the game that players can openly talk about their suspicions.)
* Any players that are dead must place their death cards in a visible spot (most place them on their clipboard).
* Dead players must continue until all their tasks are complete in order for crewmates to win.

**Game Play –** There are three phases in game play: tasks, meetings, and sabotage events.

1. **Tasks**- Players will be wondering around randomly completing their tasks, and imposters will be wandering around secretly handing out death cards.
2. **Meetings-** Players can call for emergency meetings when they find a dead player. By using a large sound button from the Moon Adventure Game, the players can hit the large button to call a meeting. This button should be placed in a central location. During meetings all killed players are only allowed to observe meetings. Dead players are not allowed to speak or gesture towards alive players. Alive players can take turns talking about who they are suspicious of and who they think is a crewmate. After talking for a few minutes. The facilitator can call out “1, 2, 3, Vote!” then all alive players are to point to who they want to vote out. Players have a choice not to vote for anyone. The player that has the most votes is then ‘ejected’ from the base and receives a death card from the facilitator. If there is a tie all players remain alive. Players can decide if they want to reveal what role to ejected players are or to keep it a secret. After voting players continue their tasks.
3. **Sabotage events**- players must ‘fix’ the sabotage that had damaged the base as fast as they can. Tasks cannot be completed, and a meeting cannot be called while there is a sabotage event taking place. If someone discovers a body during a sabotage event, they must wait to report it until the event is solved.

**How to win**

**Crewmates** - Crewmates can win by either having all crewmates (dead and alive) complete all their tasks, or by voting out all of the imposters (implying all tasks could be completed without incident).

**Imposters** – Imposters win by handing out death cards to kill enough of the crew so that there are an even number of alive imposters and crewmates. (Ex. If there are two imposters alive, they win if there are only two crewmates left alive.) Imposters must kill crewmates before all tasks are finished.







