# **CREW MANIFEST MISSION: EARTH ODYSSEY**

Mission Date: Mission Time: # of Students: \_\_\_\_\_\_\_\_\_ Grade: \_\_\_\_\_\_\_\_\_

Teacher’s Name(s): School:

Please bring two (2) copies of this completed **CREW MANIFEST** with you for the Flight Directors on the day of the mission. Instructions for completing this form are provided on page 2.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **TEAM** | **MISSION CONTROL CREW** | **SPACE STATION CREW** |
|  | **COM** *Communications* | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **SAT** *Satellite* | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **ATMO***Atmosphere* | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **BIO***Biosphere* | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **CRYO** *Cryosphere* | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **GEO** *Geosphere* | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **OCEAN** *Ocean* | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | **SW** *Space Weather* | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

*\*Required to fly Earth Odyssey*

# 

# **Customize Your Crew MISSION: EARTH ODYSSEY**

The crew is customizable based upon the number and talents of your students. We recommend filling in the teams in a manner that fits the strengths of your students and teaching objectives.

To start, review the team descriptions on page 3. This will provide you with details needed to place your students on the most appropriate team. Then follow the guidelines below for completing the crew form on page 1.

Each TEAM includes at least one student on the Mission Control Crew and one student on the Space Station Crew.

* Place one (1) student on each crew – Mission Control and Space Station -- for each team. (Ex: Place one student on the COM team in Mission Control, and one on the COM team in the Space Station.)
* Once you have assigned one (1) student to the 8 teams of both crews (16 students in total) go back and assign a second student to the other slot for each team. These students will work as partners.
* Remember each team member in Mission Control Crew must have a corresponding team member in the Space Station Crew.

If you have questions about completing the Crew Manifest, please contact us at [info@clcstlouis.org](mailto:info@clcstlouis.org) .

# **TEAM DESCRIPTIONS MISSION: EARTH ODYSSEY**

Review each of these job descriptions to familiarize yourself with the type of work being conducted during the mission.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **TEAM** | **DESCRIPTION** | **JOB TITLES** |
|  | **COM** *Communications* | * Provide communications support between astronauts and Mission Control. * Manage the distribution of assignments during an event and during some emergencies. * Key skills: Comfortable reading out loud; multi-tasking | Astronaut  Engineer  Astronaut Trainer |
|  | **SAT** *Satellite* | * Monitor the Earth Observation Satellite network. * Build and test a remotely operated satellite to study Earth, installing critical equipment and components and retrieving data. * Key skills: Strong oral communication; dexterity | Computer Scientist  Mechanical Engineer  Electrical Engineer  Structural Engineer |
|  | **ATMO***Atmosphere* | * Examine the effect of greenhouse gases on global temperature. * Study precipitation, cloud cover and atmospheric aerosols. * Key skills: Observation | Meteorologist  Climatologist  Earth Scientist  Chemist  Environmental Engineer |
|  | **BIO** *Biosphere* | * Study the impact of Earth’s vegetation and photosynthesis on CO2 and climate change. * Observe population parameters and their environmental effects. * Key skill: Following written instructions | Biologist  Earth Scientist  Botanist  Ecologist |
|  | **CRYO** *Cryosphere* | * Study snow and ice cover, reflected sunlight and temperature to see how melting glaciers and sea ice affect sea level and water supply. * Key skills: Observation | Glaciologist  Earth Scientist  Climatologist  Spacecraft Engineer |
|  | **GEO** *Geosphere* | * Observe ways in which land use and vegetation affect the carbon cycle and the greenhouse effect. * Key skills: Spatial reasoning; high frustration tolerance | Geologist  Seismologist  Volcanologist  Earth Scientist  Spacecraft Engineer |
|  | **OCEAN***Ocean* | * Research how changes in temperature and CO2 in the atmosphere affect biological and physical properties of the ocean. * Key skill: Following written instructions | Oceanographer  Marine Biologist  Chemist  Earth Scientist |
|  | **SW** *Space Weather* | * Examine sun spot activity, solar flares and coronal mass ejections and their effects on the Earth, satellites and the spacecraft. * Handle preparations for solar flare or space debris emergencies by determining location, severity and effects. * Key skills: Efficient worker; comfortable with math | Electrical Engineer  Solar Astronomer  Physicist  Meteorologist |