

Dear Teachers:

We are looking forward to your trip to the Expedition Center at the George Observatory!

The Chevron Expedition Center Program supplements the science curriculum for any grade level. It gives students an opportunity to discover what it would be like to be a part of a space flight mission. Plus, the mission challenges students to combine problem solving and higher level thinking skills, while promoting teamwork and cooperative learning. Yet the best part of the mission is that the students have fun while learning!

At the Expedition Center, we enjoy working with a broad range of students. We have found that if you have students with physical or learning disabilities or who do not speak or read English, it is helpful for us to know in advance. If you have questions regarding your mission call us at the George Observatory (281) 242-3055. If we do not answer, leave your name and contact phone number. We will get back to you as soon as possible.

Team Assignments:

You can assign your students to a team before you come to the Observatory or we can make the assignments for you. There are 9 teams, which are discussed in the Team Descriptions document.

If you have scheduled a **MINI MISSION**, fill in only the Mini-Mission Crew Manifest. All the students will be in the Spacecraft for a Mini Mission.

If you have scheduled a **JUNIOR MISSION**, fill in only the Junior Mission Crew Manifest. We require 1 adult for each team to help younger children with reading and directions.

If you have scheduled a **FULL MISSION**, fill in both the Mission Control and Spacecraft sides of the form. Halfway through the mission, the students will go through a crew exchange. The mission controllers will become the spacecraft astronauts and vice versa. However, the students will not change to a different team. For example, if assigned to the SATS team, they will be on the SATS team both in Mission Control and on the Spacecraft.

Team assignment tips:

- Do not assign more than 2 students per crew to the COM, DATA or NAV teams.
- COM Team: The voices of the students heard throughout Mission Control and the Spacecraft. The COM team sets the tone for the mission. It is important to assign this team carefully, selecting students who speak clearly and are neither too shy nor too zealous.
- DATA Team: types the messages between teams on the spacecraft and teams in Mission Control. Students assigned to DATA should have some keyboarding and spelling skills.
- BOTS Team: This team works with robots in the spacecraft and is good for students who are non-readers or speak little English.

Emblem/Crew Patch Activity:

Every NASA mission has a crew patch. If you have your students make crew patches, choose one to represent your mission and bring it with you. We will display it in front of Mission Control during your mission. Afterwards, the crew patch will remain on the wall of Mission Control, just as they do down at NASA!

There are several picnic tables and large oak trees near the bus parking lot as well as bathrooms. If the weather is nice, the students can eat lunch in this area. If the weather looks like rain, have the students bring their lunches to the Observatory and they can eat indoors. We appreciate your having the students clean up and using the trash cans provided, rather than the outdoor receptacles. The raccoons enjoy their leftovers if we use the outdoor cans for food!

Please let us know in advance if you have any special needs, and we will make every effort to accommodate your group. Feel free to call or email if you have any questions.

Thank you for your support,

The Staff of the George Observatory
281-242-3055
observatory@hmns.org

TEAM DESCRIPTIONS:

COMMUNICATION TEAM: As the voice of the mission, they set the tone for the mission. These students should be responsible and cool under pressure.

Skills: reading and oral communication, work in high stress situations, ability to prioritize.

DATA TEAM: Responsible for all written information exchanged between Mission Control and the Spaceship, they should be able to multitask.

Skills: computer keyboard operation, work under pressure, ability to prioritize tasks.

MEDICAL TEAM: Responsible for the health and safety of the astronauts, they study the effects of space flight on the human body.

Skills: good communication, simple math, and keyboarding.

NAVIGATION TEAM: The pilots identify constellations, take measurements and make calculations to get the ship into orbit and land on the Moon and/or Mars.

Skills: math, geography, and an interest in astronomy.

BOTS TEAM: Use robot arms to conduct experiments and analyze test results.

Skills: using joystick controllers, problem solving skills, patience.

SATS TEAM: Responsible for the assembly, deployment, and monitoring of a satellite.

Skills: strong mechanical skills, analytical problem solving, deduction skills.

LIFE SUPPORT TEAM: Responsible for the environmental conditions on the ship that enable astronauts to live in space. They monitor the air filtering, water recycling, and electrical power systems.

Skills: Strong problem solving skills, interest in environmental sciences and chemistry.

BIO TEAM: Analyzes the growth of plants in the greenhouse and maintains the Hydroponic system.

Skills: using joystick controllers, observation skills, patience.

GEO TEAM: Study rocks samples, core layers, and surface features of Moon and Mars

Skills: mapping, observation, and measurement skills, interest in geology.