



This write up is hot off the press, straight from the Challenger Learning Center of Wheeling, West Virginia. Read up on their 2006-2007 offerings, and don't hesitate to call James Dentel at ESBOCES for additional information and pricing.

Thank you for your interest in the Challenger Learning Center e-Mission programs! E-Missions are great tools for teachers to motivate students to learn about math and science and to get them excited about space exploration, while at the same time meeting standards and objectives in the classroom. A website is provided for each mission that includes lesson plans for preparation and all the materials and information needed to complete the mission.

As a teacher, you will assemble your class as an emergency response team that will handle a crisis. Each e-Mission is a different scenario that will engage your students during the "live event." After your students are prepared using the lesson plans provided, they will connect with a Flight Director at Mission Control to help solve some problems for NASA.

We have a variety of e-Mission packages available, so you can select which will best meet the needs of your class.

Moon, Mars, and Beyond (Grades 3-5)– www.e-missions.net

The class is organized into 5 planet teams to help NASA locate and rescue a lost space ship that is orbiting one of the outer planets. Each planet team consists of Cargo, Navigation and Transmissions Specialists. The Cargo Specialists calculate the number of days for a round trip to their planet and the amount of food, water and oxygen needed for the rescue trip. The Navigation Specialists plots coordinates to help get some location information on the lost space ship. The Transmissions Specialists decode messages which give them clues about the location of the space ship over the last 5 days. All teams work together using information they receive to determine where the lost ship is located. The Communications Team relays all information to Mission Control so that a rescue ship with all the loaded cargo can be launched from our base on Mars to that planet. Your class will locate and rescue the lost ship.

Storm-E (Grades 4-6)– www.e-missions.net

Storm-E (*Students and Teachers Observing and Recording Meteorological Events*) is an engaging, culminating event to any weather unit. The classroom becomes a command center of experts to make weather predictions. Air pressure, humidity, temperature, and wind data is analyzed by your team of experts and they are asked to help make decisions to hold or cancel outdoor events based on maps, charts, graphs, and satellite images provided to each team.

Operation Montserrat (Grades 5-8)– www.e-missions.net

The Soufriere Hills volcano located on the small island of Montserrat is ready to erupt at the same time a Category 3 hurricane is approaching the island from the east. The volcano team calculates rock fall and volcanic tectonic data to predict what will happen with the volcano. The hurricane team tracks the approaching hurricane and calculates estimated times of arrival on the island. The evacuation team uses population maps and available transportation options to move residents out of the danger zones to safe shelters on the island. Your team receives satellite data from the island every 5-6 minutes to assess the situation. The communication team's job is to keep Mission Control informed about this brewing situation on Montserrat and to relay recommendations from all teams.

Space Station Alpha (Grades 5-12)– www.e-missions.net

The astronauts aboard the International Space Station are trying to protect themselves from the worst solar flare ever recorded. The Storm Team calculates x-ray and proton readings to predict when the storm will cause problems for the ISS. The Radiation Team continually calculates the radiation levels from two TEPC monitors in various locations on the space station. The Life Support Team calculates the carbon dioxide and oxygen levels in the cabin and makes recommendations to keep those levels normal. The Crisis Management Team monitors all systems on board to ensure the astronauts are safe. Crisis Management also tracks the power load and the battery reserves available to ensure the safety of the crew. Recommendations are made to shield the astronauts from the harmful radiation, to keep the life support systems in balance, and to ensure the International Space Station has enough power to get through an eclipse as it weathers this solar storm. The Communication Team keeps Mission Control informed about the status of the station and relays recommendations from all teams.

Target Moon (Grades 6-8) - www.e-missions.net

A comet is on target to hit one of our lunar settlements. The Comet Tracking Team tracks the comet as it is approaching and provides Estimated Times of Impact and the Distance Reached by Ejecta. The Moon Mapping Team calculates which location on the moon has the highest probability of impact and the area of the impact. The Crisis Management Team determines which base needs evacuation orders and executes those orders. They are responsible for moving equipment and personnel to safety and calculating the estimated arrival times of astronauts using various methods of transportation. The Communication Team relays all data and recommendations to Mission Control as the team handles this crisis.