

THE SUN

HERE COMES

- ***Ninety-three million miles away, the sun erupts.***
- ***Early warning signs indicate the eruption could be the largest ever recorded.***
- ***Scientists wonder if this is a solar flare, an x-ray burst or a solar proton event.***

Closer to home, Mission Control warns astronauts aboard the International Space Station to be prepared: similar solar storms have incapacitated satellites and could carry dangerous levels of radiation.

As the storm ripples through the space station, electronics systems begin to act erratically . . . Oxygen generators stop working . . . Power capacity begins to drop . . . Radiation levels start to rise. With these life-threatening events taking place aboard the Space Station, the Challenger Learning Center's Mission Control scrambles to assemble a team of specialists to assist the astronauts.

"E-Mission: Space Station Alpha" is an innovative distance learning program offered by the Challenger Learning Center at Wheeling Jesuit University.

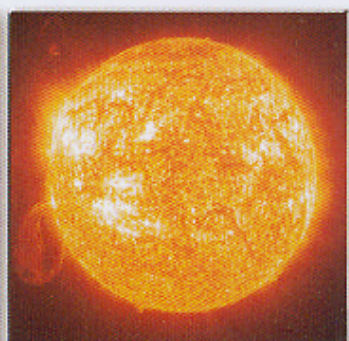
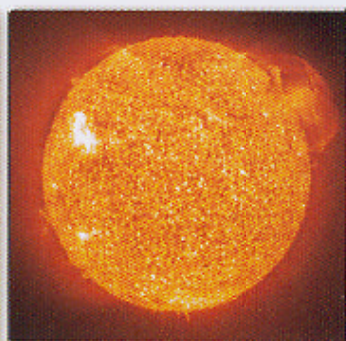
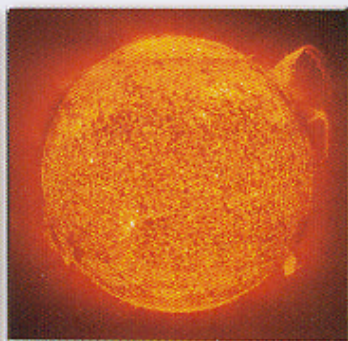
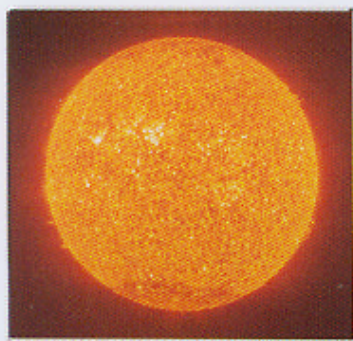


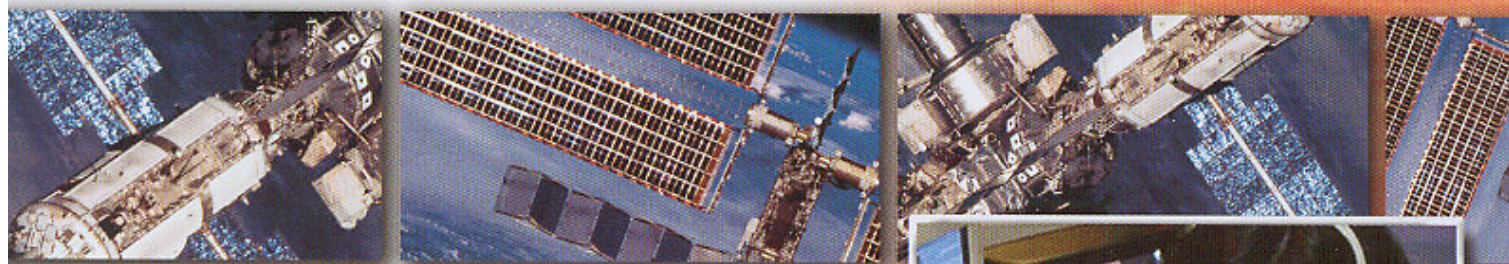
How will the astronauts restore power levels?

What can they use to shield themselves?

How long until the air runs out?

Solve these problems during a distance learning adventure.





Challenger's e-Mission

"E-Mission: Space Station Alpha" is an innovative way to engage students with the power of math and science in real-life situations. During the mission, students connect live with a flight director at the Challenger Learning Center in Wheeling, W.Va. With the help of computers, the Internet and a small video camera, students interact with Mission Control to track the solar storm, monitor orbital position, predict radiation levels, study oxygen levels and divert power to life support systems.

Students assisting the Space Station astronauts join one of four teams:

- STORM Team: Solar Tracking and Orbital Monitoring
- Radiation Team: Radiation monitoring and shielding
- Life Support: Environmental monitoring and astronaut health
- Power Team: Electronics systems and power generation

To participate in a mission, students must first complete classroom activities to demonstrate their knowledge of science and math. On mission day, students serve as specialists to examine data, analyze it, and make their recommendations to Mission Control.



The Curriculum

Throughout this problem-solving process, students apply math to integrated science topics, including biology, chemistry and physics. "Space Station Alpha" was designed by science teachers, educational researchers and subject matter experts.

The program features:

- Five units of science and math curriculum (10 days) aligned with state and national standards
- Teacher training, including technology support
- Live mission with Challenger's Mission Control

"Space Station Alpha" is an interactive method for teachers to effectively utilize technology in the classroom. Research indicates that this way of learning leads to improved problem-solving and critical thinking skills and teaches students the importance of teamwork and communication.

For more information about "Space Station Alpha," contact Wheeling Jesuit University's Challenger Learning Center at 304-243-4325 or visit www.wju.edu/clc/ssa.



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