

TEACHERS IN SPACE

www.teachers-in-space.com

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Joe Latrell builds Mission Control Center for VBS

So what do you do when your church has Space as their theme for vacation bible study (VBS) and you work with Teachers In Space? You build a working mission control center of course.

The design is based on images from NASA's mission control at Kennedy Space Center. The set wall is constructed using wood framing with openings cut for 40" and 20" monitors. Shelves in the back supported the monitors (once their stands had been removed). A simple cleat system made from wood blocks helps hold the monitors in place. A replica FLIGHT OPS station was constructed and painted to look like the stations mission controllers use. This added a bit more authenticity to the set and gave the students a place to sit and imagine working at NASA. We placed two Chromebooks in the station with NASA logos and web browsers set to a host of NASA sites.

The imagery on the main screens came

from a few different sites. Heavens-Above.org has a wonderful 3D rendering of the International Space Station on orbit using real imagery of the Earth. The flight tracker is a real time feed from the European Space Agency. Finally, we had a live video feed from NASA TV providing the ISS interior shots. PowerPoint slides were used during some activities to provide information and a working feel to the entire system. In total, four computers were used to create the set giving the children plenty to see and do.

The set really added to the entire space theme. The kids really loved the visuals and asked great questions about it. During the week, students also learned about meteor impacts, distances in space, and rocket physics. They even built and launched their own Alka-Seltzer based rockets.

The Mission Control set is currently being used at another church for their

VBS. It is scheduled to be used a few more times this summer before getting a refit to make it easier to transport and a little more realistic. The goal is to make it into a traveling display for schools and other venues.

Sites for reference:

http://heavens-above.com/ISS_3D.aspx

<http://www.ustream.tv/channel/live-iss-stream>



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Teachers In Space Welcomes New Newsletter Editor



Stephen Pederson joins our newsletter team from Randolph-Macon Academy (R-MA) in Front Royal, VA. Stephen has assisted with grant information in the past and teaches both Exploring Space and Life Skills (college prep) to Juniors as an Advanced Aerospace Science Instructor.

After attending a Teachers in Space workshop in 2011 on Space Medicine and Human Factors, Stephen has enhanced his Living in Space lesson by illustrating his experience in the altitude chamber and the effects of hypoxia on the human body. Stephen spent seven days at the NASTAR Center in various workshops including space flight simulation rides in their centrifuge trainer which allows him to explain increased gravity effects on the human body. He also participated in a medical study to try determine baseline medical requirements needed for space tourists with existing medical conditions. Through online training with NASA's Digital Learning Network, Stephen has increased his knowledge concerning available on-line classroom resources for teachers. Stephen searches social network sites to acquire photos and multimedia from astronauts working on the International Space Station to enhance his aerospace education classes. Stephen is a member of the National Space Society, the National Association of Rocketry, and the American Institute of Aeronautics and Astronautics.

Stephen recently attended a Meet an Astronaut at the Smithsonian's National Air and Space Museum in D.C. where he listened to a presentation by astronaut Reid Wiseman. During the talk, Stephen heard first hand about the kinds of training involved in preparing for a mission, the Soyuz launch and landing, the dynamics of space sickness experienced during the first days in space, maintaining the ISS, and the effects of gravity upon reentering Earth.



Coming up in August: New workshop and flight opportunities

Stephen was afforded the opportunity to ask Commander Wiseman to describe what his senses first picked up after the hatch opened on the Soyuz capsule. Commander Wiseman's response was the cool breeze on his face since the ISS is always 72 degrees. Information learned during this astronaut talk will supplement material in Stephen's Living and Working in Space lesson.

NASTAR Offers Free Workshops for Teachers

Every year, the National Aerospace Training and Research (NASTAR) Center offers workshops to teachers in support of their classroom activities. Many Teachers In Space participants take advantage of these workshops annually. There is no cost for teachers to participate beyond food and lodging. This year's workshops with seats still available include those listed below.

The Atmosphere and Weather - July 20

Exploring the Solar System - July 21

Rocket Science - July 22

Space Suits - July 22

Acceleration - July 24

Physiology of Flight - July 27

K'NEX Energy, Motion and Aeronautics - July 28

500 Years of Flight - July 29

Rocket Science, Stage II - July 30

Space Payloads - July 31

For a complete description of each course and registration packet, visit NASTAR at <http://www.nastarcenter.com/education/teachers/>

