

On Thursday, April 26, 2007 twenty-six fifth grade students went to Seattle, Washington to learn about aerospace and aviation. After arriving in Seattle, the group went to the Seattle Aquarium.

Katlyn explains, "At the Seattle Aquarium, first we went into the aquarium and we touched sea stars and other marine life. Then we had a lesson about the sea star and other invertebrates. I learned that the sea star has real live cousins and that the sea cucumber spits out its guts to distract its enemies. Then we looked at other marine life that swims. It was cool!"

On Friday, April 27, 2007 students went to the Museum of Flight where they had a class called Apollo Moon School. Vong explains, "In the museum, the instructor took us into a room and split us into two groups. I was in the group that worked on launching and landing. We had to make rockets. The instructor gave us two pieces of paper, a roll of tape, scissors, and a straw. First, we took the paper and wrapped it around the straw. Second, we added fins to our rocket. Third, we tested our rocket. The instructor put three patches of carpet on the floor and we had to try to blow our rocket and have it land on a certain patch."

Colby continues, "After launching a rocket you need to land, so we made parachutes with a payload at the end of the strings. We made our parachutes with paper, four strings and a plastic bag. Our goal was to make a safe landing without the payload tipping over. We also wanted the parachute to have a lot of hang time. Something I learned about this was that if your payload has a square base, you are more likely to have a safe landing."

Students also made bottle rockets to learn about launching as Heavenly explains, "We had to try a lot of marbles and air so that a bottle rocket would fly up to the black line. When the bottle reached the black line, it represented that we made it to the moon safely. First, we used no marbles and 5 pumps on an air pump, but the bottle did not go far enough. Then we used one marble and 5 1/2 pumps and it still did not go far enough. When we got to 7 marbles and 10 pumps it went up to the black line. We had a lot of different jobs. I was the data person. Mayra was the air pumper. Daisy was the person that had to get the materials ready so the rocket would fly. Laura was the person that had to catch the rocket."

Tam explains another activity students completed, "We had to have four people, four strings, and a ring in the middle with a ball that represented the Earth. We had to lift the Earth with the middle ring without making the Earth fall off. We tried to move the Earth one of the tubes without falling, but it was hard. The activity was fun!"

The other half of the group learned about exploring the moon as Pang Nou explains, "I was in the rover group. We had to build and make a rover work. First, we put the wheels on the body part. Then one of the staff came over and told us that we could practice making it move. After we were done making the rover work, we needed to make our rovers pick stuff up. We used some pinchers and connected it to the front of the body. When the rover picked up stuff, we could see how the pretend model is moving and how it picks up stuff, just like the real model does on the moon."

Alex explains the other exploration activity students completed, "We used model rovers to explore the moon. We used this rover that the teacher had built since it had a video camera. The video camera showed up on the TV screen. We had to try not to hit the rocks or we would damage the rover. We could see stars and we moved a rock."

Gabriella P. explains the activity students completed in the afternoon, "In the Museum of Flight we had a tour of the museum looking at planes throughout time. We learned about different planes that were built a long time ago. It was fun. I think the most interesting plane was the Aerocar III. It was a car but it was also a plane. We had to find answers to questions about the planes."

Then students had time to explore other parts of the museum as QocTavia explains, "Dr. Vincent showed us a room dedicated to World War I and II planes. We heard stories of the war. I learned that sometimes the men would put the pictures of their girlfriends or wives on the sides of their planes. We also had the chance to fly in an

automated glider. We learned a lot and had fun.”

Students then went across the street to see the Airpark part of the museum as Hly explains, “Walking through the Concorde plane was exciting because the inside of the plane was covered so we could just see things. We had to walk in a single file line because the aisle was narrow and the seats were facing each other. In the Air Force One, there was also glass covering things but not everything. There was glass covering most of the seats. What I thought was interesting was that Air Force One was a presidents’ plane. One thing I saw was a typewriter. I learned that President Eisenhower was the first president to fly on Air Force One.”

Students next went on a ferry ride as Indira explains, “We first sat on the benches. It was cold. Then some students took pictures of friends, the water, the city of Seattle, and the ferry. Then Dr. Vincent took us to the back of the ferry ride and it was very windy. It was blowing everybody and it was funny. Then we went back to our seats. When the ferry ride was returning to Seattle, we saw two marines. They were men and they talked about their jobs. They said that they had gone to Iraq. Then they left. It was very fun!”

On Saturday, April 28, 2007 students had the chance to meet three former astronauts as Michael explains, “Scott Carpenter, Tom Stafford, and Gene Cernan are the astronauts who shared with us. These astronauts talked about what happened when they went to space. I learned some facts about each of them. Scott Carpenter flew into space on May 24, 1962 atop the Mercury-Atlas 7 rocket. Tom Stafford was the captain of the Apollo 10. He wore red stripes on his suit so people could tell him apart from the other astronauts. Gene Cernan was the commander pilot with Stafford on the Gemini IX mission. He also flew on Apollo X and Apollo XVII. He was the last man on the moon.”

Students next had a class in the Aviation Learning Center. Jasmine explains one of the activities they completed, “We each found a partner and went to a computer where there were headphones waiting for us. So we put our headphones on while the teacher was instructing us how to do our work on the computer. First, we pressed a button that said ‘Start.’ We started to hear the computer’s voice talk to us about Leonardo Da Vinci. We had to answer questions about him, such as ‘Is there more pressure on the top or bottom of a plane wing?’ or ‘What was Leonardo’s first invention?’ My partner and I learned as much as we could about Leonardo Da Vinci.”

Chue Yee continues, “At the Aviation Learning Center we learned about making a flight plan. What we needed to know for a flight plan is what kind of airplane we are flying, the color of the plane. We used a map to know where to go and where to land. We needed to tell someone where we were going so if something becomes wrong with our airplane, somebody could come find us. We needed to give more details about our plane too. Before we could fly, we needed to mark the point we are starting from and where our destination would be.”

Mayra explains another activity completed in the Aviation Learning Center, “We went into a room with a small airplane and we had to check if there was any damage to the plane. We had to check the right and left wing, the tail, and the cockpit too. We also had to check the nose, and by the propeller we saw a bird’s nest. There also were leaks all over and on the right wing the lights were not secure. We had a clipboard so we could come back to it and see the problems.”

Daisy explains the last activity students completed in the Aviation Learning Center, “We flew in a flight simulator. The flight simulators at the Museum of Flight were harder than the ones here at Farnsworth because we had to work with a joystick instead of a throttle stick. There was also a button for how much power we wanted. When we were flying we had to fly from Boeing Field to Paine Field. Then we saw flashing lights and had to fly toward the lights just like in our simulators at Farnsworth.”

Later in the afternoon, students attended a second museum class in the Challenge Center called Voyage to Mars as Ebony explains, “We pretended we were going to Mars in the year 2026 to replace another team on Mars by taking their place to study Mars for two years. I was a Data Officer, in other words I was a communication link between those

on the spacecraft and mission control. It was kind of hard because everyone was sending me notes to send to the Mars spacecraft. Also, I had to look at Mars' moon rocks on the computer. Then the teams switched places after they landed on Mars. Then the two year crew had to go back to Earth. Before take off there was a dust storm coming. The Head Commander told us it could last for months so we had to do an emergency takeoff. Our takeoff was successful and we were on our way back to Earth."

Gabriella M. explains another job students had on the way to Mars, "My job was a communication specialist, which was very cool. I had to communicate with the other communicator in the other area. For example, when I was in the spacecraft, I talked to my communicating teammate in mission control. I was also in charge of the cameras and sending emergency messages. It was very fast and hard to do my job."

Ying explains his job as a navigation specialist, "A navigation specialist is a very important person. Navigation specialists help to launch and land a space shuttle. They all communicate to the navigation team in the space shuttle. A navigation specialist shows directions to a planet. A navigation specialist also launches a shuttle from danger. A navigation specialist's most important job is to know where the shuttle is or where you are. This is what a navigation specialist needs to do."

Karina continues, "On the Mars expedition, I was part of the Probe team. I worked with Chue. Daisy and Vong were the other teammates that also helped to launch two probes. We had two probes to launch to Mars' biggest moon. We also had to wear white suits because we were on the shuttle and because there was dangerous stuff. It was a success. That day, I learned working as a team works the best!"

Now Teddy continues, "In the activity called 'Mission to Mars' I was a Life Support Specialist. A Life Support Specialist's job is to make sure that the astronauts can stay alive with clean air, food, and water aboard the spacecraft. One problem we had to solve was that the CO₂ filters were filled up and the astronauts were running out of breathable air. We solved the problem with four minutes to spare."

Bea explains her job for the Mars mission, "When I was a Remote Specialist during the class it was hard and fun. My partner was in another room. We were studying the rocks from Mars. My teammate would send facts and I would also have to research about different rocks. It was difficult sending information back and forth and doing our work. It was fun because we worked together."

Christina continues as she explains her job as an Isolation 1 specialist, "Being an Isolation 1 Specialist during the Challenger Center class was not easy. It was very hard. An Isolation 1 Specialist has a chemical job. We had to use tools, such as measurement tools, computers, and a robotic arm. First, we had to learn how to use the buttons and how to use the robotic arm. We then had to put chemicals into a balance and measure it."

Laura explains her job as an Isolation 2 Specialist, "Being an Isolation 2 Specialist is special work in which you work with a robot that you press the buttons and it is for studying. You need good skills for working. You have to learn and study for the job. I had to make sure that I did the right thing. I pressed the buttons to control the robotic arm to pick up a square metal so that it could stay in the spot. I had to put four of the square metals in four spots. An Isolation 2 Specialist has special work for anyone to try."

Maria explains about her task on her mission to Mars, "The exploration to Mars was very exciting because we pretended we went to Mars and we worked like the people in space worked. My job was an Isolation 3 Specialist. I had to do experiments with a robotic arm. At first it was hard but in the end, it got easier. I had to move little boxes with the robotic arm. I really liked doing my job!"

Erin explains the final assigned job, "I was on the Medical Team in the Challenger Center. I had to check the radiation badges that were placed on each person. I had to use a remote to check the radiation levels. If it showed two green lights that meant safe and a red light meant unsafe. My job was to make sure everyone was healthy on the spacecraft."

On Sunday, April 29, 2007 students returned to Minnesota with many stories to tell and many memories to share. Be sure to check out the website to read students'

memories and see more pictures of the trip.