

Evidence of Learning #3

Date: February 9, 2017

Subject: Astrobiology

Analysis:

The date was July 8, 2011. The day of the last space shuttle launch. Astronaut Christopher Ferguson, Douglas Hurley, Sandra Magnus, and Rex Walheim boarded Atlantis and made history that day. Little did I know that I would be able to speak with one of the crew members six years later. In one of the video conferences I had with my mentor, I told her how I had a big interest in going to space and how awesome it would be if I could talk to an astronaut. Dr. Thomas-Keprta immediately told me that her close friend was a former astronaut and her friend happens to be Rex Walheim. She then told me that she would ask him to talk to me. I was, of course, super excited for the opportunity.

On February 8, 2017 at 1:30pm, I finally got to speak with Mr. Rex Walheim. I have got to say that Mr. Walheim is probably one of the coolest people I have ever known. He was so kind and humble to me. I first asked him how he became an astronaut and his story is pretty amazing. After he graduated from college, he joined the Air Force to become a test pilot. Being a pilot has been his dream for a very long time. Unfortunately, during one of his medical test, the doctors thought they heard a heart murmur and told him he couldn't fly. He told me how he thought everything was over but the Air Force gave him a chance to be a flight engineer. This means he can sit behind the test pilot as they flew. Even though this wasn't his original plan, he went with it. After a little while, he again had to do a medical examination and found out

that he never had a heart murmur. As a result, he got back confidence to try to be an astronaut. The first time he applied to be an astronaut, he didn't get in. However, he tried a second time and was selected to be an astronaut. Astronaut Rex could've given up at the start but he didn't. He kept going and believed in himself. He is now a veteran of three space shuttle missions (STS-110, STS-122, and STS-135).

Later he told me the main characteristics an individual should have if they want to be a successful astronaut. Mr. Walheim stated that one should have a very strong technical background (engineer or science), should have an advanced degree of education (PhD or masters), be the best at whatever job you are currently in (biologist or a flight engineer), have people skills, be comfortable in uncomfortable situations, and also be independent. In addition to that, one must have really good language skills because NASA is constantly partnering up with foreign space agencies. His advice gave me a really good insight on what I must do to be an astronaut.

We then discussed about the Orion Spacecraft and the future of deep space exploration. Mr. Rex Walheim is actually the main liaison for the Orion Program. He basically gives an astronaut's perspective in the development of this mission. He mentioned how one of the main challenges astronauts will be facing when they go to Mars is the communication delay time. There is always a twenty four minute delay from Mars to Earth. As a result, astronauts must be able to problem solve really quickly without full dependence on Houston. He also told me how they are trying to develop a habitation module for future Mars missions. We talked about how the surface of Mars will be more exposed to radiation than we are used to here on Earth. Later, I asked him about the astronauts will go through in the Orion Program. He told me that crew

members will need to learn about their vehicle's infrastructure, will need to know how to do spacewalks, and also how to utilize robotic systems. I am so glad that I got to get a sneak peek about the new Orion Program.

Lastly, Astronaut Walheim talked about his experiences in space. He told me how on his last mission, one of the computers failed and how his crew had to slowly go through a procedure to fix the problem. He laughed about how slowly the crew spoke while trying to fix the problem because they were all exhausted from working all day. He also described how it was launching off of Earth. He stated that the launch was like the best roller coaster ride. The feeling is just amazing. Additionally, he described the multiple spacewalks he did while in space. The view of Earth is truly amazing, according to Astronaut Rex. Mr. Walheim also had the amazing opportunity to meet Former President Bush and Obama. He told me that President Obama was a very kind and down to Earth man. I thought it was amazing how he got invited to speak with the president in the Oval Office, twice! I finally asked him for advice for young kids because I will be teaching young children about space exploration during the summer. He told me to tell them that space is as cool as it sounds and that space travel will be more common in the coming years. He also gave advice for young girls. He told me to tell girls that they are 100% in the STEM Field and that NASA is constantly looking for a diverse workforce.

I never thought that I would ever get to talk to an astronaut in a billion years but I did. Astronaut Rex Walheim is by far the coolest person I have ever met. Despite all his accomplishments, he is extremely humble. He was so kind to me and his hard work and determination inspired me to do my very best. Like him, I would also love to go to

space. I especially want to go to Mars to collect samples so I will get a better understanding of astrobiology. The conversation I had with Astronaut Rex was definitely life changing.