

# Women's History Month Q&A



In honor of Women's History Month, NASA hosted a Q&A on LinkedIn with women leaders who answered questions about their career journeys and what it's like to work in STEM at NASA. The following is a compilation of questions and answers from the session.

## Thank you all for your time and inspiring more girls and women to study and work in STEM. From my 12 year old daughter (who loves Mathematics and Science and dreams of working at NASA): What would you tell your 12 year old self about working at NASA?

If I could go back in time I would tell myself that you need to double up on my math and science. But in addition, I would work on my communication skills both verbal and written. I would pat myself on the back for being well rounded, I played the clarinet, sketch and paint, I was the only girl on the boys basketball and baseball team too many times to count. But being the only one helped me feel confident when I later joined NASA teams where I was one of a few women in a male dominated environment. I would say it's OK to be different from everyone else. Practice solving problems. Continue to learn to cook, it is chemistry. I learned to work on my bicycle but I would have pursued learning to work on my dad or grandfather's cars. I would tell myself to ask for LEGOS for Christmas (we didn't have that when I was a kid). I would learn to Code with Scratch or Code.org. -Aprille Ericsson

I would tell my 12 year old self to not be afraid to fail. I was definitely an "over-achiever" type in high school, and knowing what I know now, failures are an important part of life. I have learned more from the times that I've failed than from when I've experienced success. There will be times when you don't get a perfect score on a test, or a project doesn't go as planned, so make sure that you take the time to learn from those experiences when they occur. - Karin Bozak

Great question!! I would tell my 12 year old self that working for NASA is very achievable! Being good at math and science is a good start, but also take time to develop yourself as a whole human. To work as an engineer, I had to get a college degree, but a big part of what helped me get a job for NASA were the relationships I developed before and after I got my degree. Life isn't about being "perfect" or the "best" (what does that really mean anyway?) but about being the best version of yourself and striving to become better at something every day. - Michele Beisler

#### If there was something you would do differently - to achieve your goals - what might that be?

I would take Calculus before I attended MIT! I would have taken a basic level Astrophysic class in college to help me understand the science so I could better support the scientist I work with. -Aprille Ericsson

For me, I did not know what engineering was until I was a junior in high school. I wish I would have explored career opportunities earlier to figure out what would be the best fit for me. There are lots of opportunities now to explore STEAM career paths at the middle school and high school levels. -Karin Bozak

### What advice would you give for someone struggling to decide on a major? Is it a hard requirement to have a bachelor's degree?

In terms of deciding on a major, I would recommend looking for shadowing opportunities, summer camps, or internships to explore different majors and gain experience that would help you to decide if you've selected the right major. For many of the engineering and technical positions at NASA, a bachelor's degree is a requirement. – Karin Bozak

I would also add that many bachelor of science degrees have similar classes the first 2 years of those types of majors (engineering and science degrees). Another option is to look into attending a community college for your first two year of school. Community colleges are often less expensive than major universities, just make sure you can transfer your credits so they count when you go for your bachelor's degree. - Michele Beisler

#### It's been known that space is designed for men and not women. What are some things that need to be redesigned/reconsidered for women to excel in space?

In earlier years the seats on board the Apollo and Gemini capsules were very narrow. During my visits to the visitor centers at JSC and GSFC I sat in the astronaut seats in the Apollo and Gemini Mockups. As a woman with hips I noticed it was a bit snug to fit in the seat. - Aprille Ericsson

For some of the vehicles and systems currently being designed for deep space exploration, including the Orion Crew Vehicle and the Gateway, engineers are taking into consideration many factors to accommodate the widest range of crew members possible. For example, the Orion Crew Vehicle display panels and chairs were designed to work for 99% of people, both men and women. Additionally, space suits, exercise equipment, and even space toilets are being designed in a way to ensure they are more inclusive to accommodate future astronauts. - Karin Bozak

#### What advice do you have for young women studying in a male-dominated field? How do you ensure you're being heard and being taken seriously?

My advice for women and men applying for our NASA workforce is the same: Be your authentic self. Be sure to list all of the things that qualify you for the position. Highlight the experiences that set you apart. If you belong to any professional organizations like the National Society of Black Engineers I would point that out. I tell potential candidates to speak to a NASA employee prior to submitting your application. - Aprille Ericsson

This is a great question. I would approach this in two ways. I suggest focusing on building your confidence through work experience as well as focus on building relationships and understanding organizational structures (who has what positions in a given organisation). Also, find experienced people (both women and men) who are willing to mentor you. You can have both formal and informal mentors for different situations. Taking the time to foster professional relationships can really make a difference in your overall career. - Michele Beisler

Great question! I think it's important to be confident in yourself - both in what you know and in what you don't know. For what you know, my advice is to not be afraid to speak up and communicate your perspective in a group setting or meeting. For what you don't know, my advice is that you should not be afraid to ask questions or ask for help - no one male or female "knows it all"! -Karin Bozak

#### Aprille, as a minority, how has your experience been at NASA? What advice do you have for young black women interested in working in the organization?

My experience at NASA has been a great experience. I love the work I have done and the teams that I have been a part of. Some things that have helped me in this work environment have been having a mentor and a coach. But also having a great network of colleagues that I can call on for technical and personal support.

My advice for women and men applying for our NASA workforce is the same: Be your authentic self. Be sure to list all of the things that qualify you for the position. HIghlight the experiences that set you apart. If you belong to any professional organizations like the National Society of Black Engineers I would point that out. I tell potential candidates to speak to a NASA employee prior to submitting your application. - Aprille Ericsson

#### What advice do you have for women applying for positions at NASA? Are there particular qualities that suggest an applicant will be successful at NASA?

For applying to NASA technical and engineering positions, I think that problem solving skills are very important. Being able to identify the problem and constraints and evaluate possible solutions and the impact of those solutions is something that is done daily as part of my job. Also, I think that there are a lot of soft skills that are important, but are often overlooked. For example, communication across teams and organisations, the ability to present your solutions in a way that is clear to understand, working in a team environment, and managing conflict are all important skills – and ones that aren't often taught in engineering school! - Karin Bozak

The first thing is to keep in mind that there are many different kinds of positions at NASA. There are the obvious scientific, engineering and technical types of positions as well as non-technical positions, for example, finance, accounting, legal, procurement and many more. General advice I would give for applying for positions at NASA is to not get discouraged if you don't get hired right away. Keep applying

to positions that you are interested in. Another strategy to work for NASA is to look at the companies who are doing contract work for NASA and apply to work for those companies. In this scenario, you can get some good experience which can help you stand out when NASA positions are available. The final advice I would give is to show up wherever you go and contribute to the best of your ability, have a learning mindset and keep finding ways to be helpful. I have experienced that when I show up and find ways to be helpful doing things I love to do, doors have opened up for me throughout my career. - Michele Beisler

### What does a "typical" work day look like in your respective roles? How does a typical day differ from a testing/event day? From my 7 year old: Are there freeze dried donuts for space?

A typical day in my position involves many meetings – typically early morning meetings with the European Space Agency in the Netherlands and ESM-prime contractor, Airbus Defense Systems in Germany as they are 6-hours ahead given the time change. And some afternoon meetings with the Orion Program Office, which is in Houston, Texas, and with Lockheed Martin, who is the prime contractor for the Crew Module, and is located in Denver, Colorado. Given the complexity of the Orion spacecraft and many teams involved, meetings help us to communicate so we are all on the same page when issues are identified and when we need to make decisions on the best path forward. I will add that earlier in my career, I worked more directly on hardware development, so for that type of aerospace engineer position, I spent more like 75% of my time in a lab setting and only 25% of my time in meetings. – Karin Bozak

Great question - I don't know if there are freeze dried donuts for space, but I like the idea. I do know that NASA and the Canadian Space Agency are running a competition called, "Deep Space Food Challenge" to help bring innovative food technologies to space. The second phase is currently closed for new submissions, but you may be interested in following along to see what other innovative food ideas people are submitting. <a href="https://www.deepspacefoodchallenge.org/">https://www.deepspacefoodchallenge.org/</a> - Karin Bozak

Currently, my day is at a virtual location at home. I spend a large portion of my day in virtual meetings. When we are doing Thermal Vaccuum testing that may require round the clock testing for many months and sometimes longer. At the time we have team members sharing the schedule with different shifts during the day. -Aprille Ericsson

The last few years, my typical work day has been working virtually from home collaborating through meetings with teams across several NASA Centers. Now that there is more in-person interaction, I am travelling to collaborate with teams in-person. I spend about 50% of my time attending meetings and about 25% reviewing documents and creating presentations and about 25% supervising my employees. Most of my work is of a collaborative nature working with experts across all of NASA. - Michele Beisler