



Jessica Strauss

Science of the Suit

A spacesuit is much more than just clothing an astronaut wears to do spacewalks. It is a life-sustaining spacecraft! Deemed an Extravehicular Mobility Unit, or EMU, spacesuits protect against the harsh environment of space. NASA crew support are tasked with designing a suit that ensures astronauts are protected from the extremes of microgravity, solar radiation, space debris, fluctuating temperatures, and the vacuum of space all while enabling astronauts to still have the freedom to move and do repairs on the ISS.

In this session, participants will engage in hands-on investigations to understand the science behind this extreme environment, the effects it has on the body, and how this shapes the design of life-sustaining space suits.

Biography: Jessica is a part of the SEEC-Space Educator Expedition Crew: a cohort of educators from around the country that help disseminate information and encourage educators to utilize space education in their classrooms. She will be attending the SEEC conference in Houston for the 4th time this year and will be presenting with NASA specialists such as Paul Boehm. In 2017 she was selected as part of the SEEC crew and went to the SEEC conference for the first time. In 2018 she returned to SEEC and presented an Engineer Design Challenge lesson created with my cohort of teachers from FL. Then in 2019 she once again returned to SEEC and presented a new lesson with NASA specialist Paul Boehm called Working Under Pressure, which simulates what it's like to do a spacewalk. In addition, she has created a website and started blogging to help share websites and information, you can find it at <https://straussjessica.wixsite.com/teachingspace>