# Vex IQ Stem Readiness
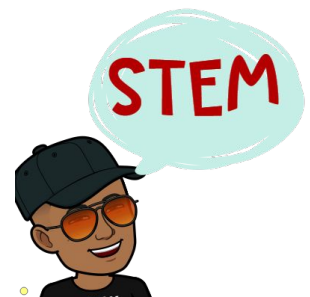
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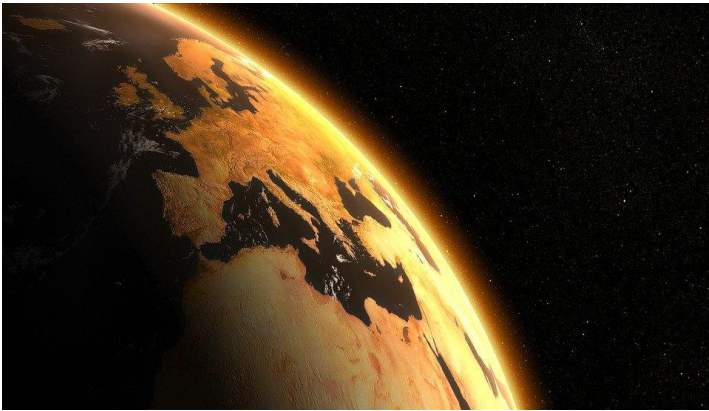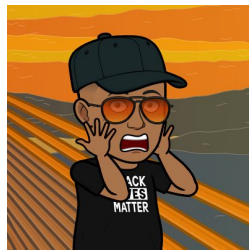
## The STEM career that appeals to me the most is...

Nuclear engineering sounds incredibly interesting to me. I want to be able to provide for my family and make the world a cleaner place. Mrs. Huffine, my robotics coach, PLTW teacher, told me that a nuclear engineer could get up to 150,000 dollars a year which is 12,500 dollars a month. I would then be able to provide for my family and come up with new ways to get the world cleaner and safer.

# Why?



Currently, in our world, we are facing several global environmental concerns such as global warming, melting of the ice caps, and pollution. All of these are having a dramatic impact on our future.
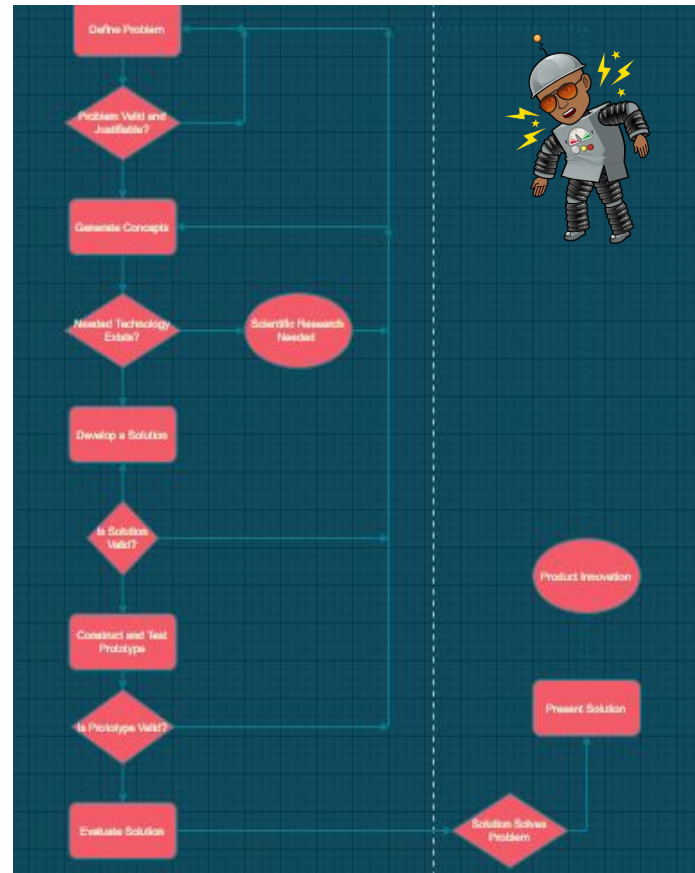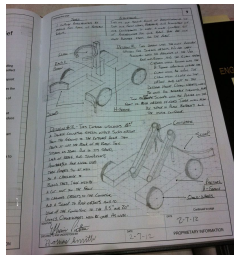


# What part of nuclear engineering?

One aspect of nuclear engineering that interests me would be harvesting the energy from the stars and using nuclear fusion to possibly energize homes by producing less waste.

# Share how your involvement in competitive robotics is preparing you for this field.

Being on a competitive robotics team has let me experience first hand the engineering process. From strategizing about how to make the most points to designing our robot I have learned how vital following the engineering process is.

# Share required skills or fields of study that persons working within this career gained/studied to allow them to be successful.

I would need a bachelor's degree in nuclear engineering which would include taking calculus, algebra, trigonometry, science, biology, chemistry, and physics. I am in 7th-grade honors math and next year I will be taking pre-algebra which will take me 1 closer step to algebra in high school, which would put me one step even closer to taking higher math in college. I should also have logical thinking, analytical skills, and I should be detailed oriented. I would gain these skills from programming a robot because I would not be able to program a robot if I was not detail-oriented in my work. I would get communication skills by working with my peers in programming and making a robot. Working with moving robots would allow me to know things like machinery, that would help me to be able to improve the engineering world.

SKILLS

# How do you believe this career field will evolve over the next ten years?

I know this career will evolve to be a job that will improve how we humans use and make energy. Over the next ten years, nuclear engineers would be able to build a program to test their ideas that could make new ways of obtaining energy cleanly and safely.

# Is there a well-known person working within this field? How has this person inspired you to learn more about this career path? What do they attribute to their success?

Lise Meitner was a physicist who was born in Vienna. She and her nephew, Otto Frisch, articulated, how the nuclear fission process happens. She inspires me because I want to be in nuclear engineering when I grow up. I think it's really cool that she explained how an atom could be split . Don't forget how she made it so far in science while the society was mostly male dominant. Meitner and Otto Hahn identified and detected an element Barium by loading Uranium with neutrons. She was a big help to science.

Lise Meitner from
Google Images

# Resources

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https://scientificwomen.net/women/meitner-lise-66

https://www.bls.gov/ooh/architecture-and-engineering/nuclear-engineers.htm#tab-4

https://www.careerexplorer.com/careers/nuclear-engineer/how-to-become/#:~:text=Entry%2Dlevel%20nuclear%20engineering%20jobs,biology%2C%20chemistry%2C%20and%20physics

https://www.atomicheritage.org/profile/lise-meitner

https://www.livescience.com/47749-nuclear-engineering.html#:~:text=According%20to%20the%20Massachusetts%20Institute,mitigation%20to%20limit%20consequences%20through

https://www.sciencebuddies.org/science-engineering-careers/engineering/nuclear-engineer

https://ners.engin.umich.edu/careers/about-the-field/

https://thesaurus.yourdictionary.com/occur