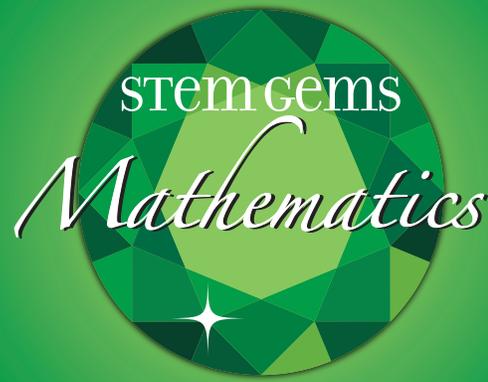


STEM Gem Career:
GEOPHYSICIST

STEM Gem:
DEBBIE LAWRENCE

“Have integrity. Stay on top of technology. Once you’ve got your degree, it’s only the beginning.”



Is a career in Geophysics in your future? Geophysicists like STEM Gem Debbie Lawrence use math to create visual models of what lies beneath Earth’s surface. The models are used to decide where to drill for water or hydrocarbons, such as coal or natural gas. She compares her science to piecing together a puzzle or cracking a code. Watch one of her videos. Then, with your STEM Gems Tribe, **discuss, explore, reflect,** and **act.**

DISCUSS

1. How do Geophysicists like Ms. Lawrence make a difference in the world?
2. What experiences did Ms. Lawrence have that led to her pursuit of a career as a Geophysicist?
3. What is Ms. Lawrence’s educational background?
4. What are some of the challenges that Ms. Lawrence faced along her journey?
5. What are some of Ms. Lawrence’s key accomplishments?
6. What inspired you most about Ms. Lawrence’s story?
7. Ms. Lawrence says: *“Have integrity. Stay on top of technology. Once you’ve got your degree, it’s only the beginning.”* How savvy are you with technology? What is the difference between being a *consumer* of technology and a *creator* of technology? Which are you?

EXPLORE

1. To pursue a career as a Geophysicist, what college majors should you consider? What colleges and universities have programs in these areas?
2. What companies hire Geophysicists? What is the salary range for a Geophysicist?
3. What classes should you take in middle and high school to prepare for college and a career as a Geophysicist?
4. Name at least two other women Geophysicists. How are they similar to Ms. Lawrence? How are they different?
5. What professional organizations support women in Geophysics? What programs are available for middle and high school students?

REFLECT

Some superheroes need x-ray vision to see through granite rock. Ms. Lawrence can see through rock without superhero vision. How? Because of math. Think about what you are currently learning in your math class. How does it apply to the world around you?

ACT

It's time to step outside your comfort zone. Name one concrete thing you will do before your next meeting that will have you one step closer to becoming a STEM Gem. Blog about it. Include it in your written or photo journal. Hold yourself accountable.

Work hard. Be brave. Stay curious.

BE A GEM!

Stephanie Espy

P.S. I'd love to hear about your journey. Share on Facebook, Twitter, or Instagram and tag @STEMGemsBook #STEMGemsTribe, or email me at tribe@STEMGemsBook.com.