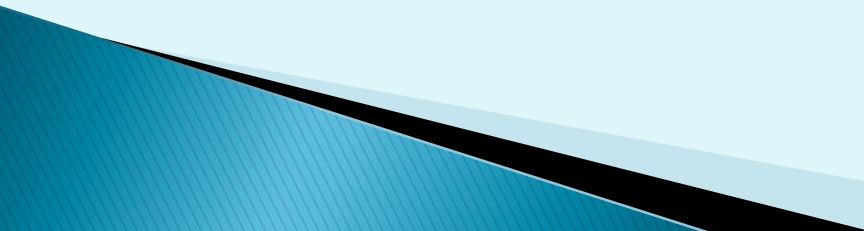


Impact of STEM

Keon Vereen & Nuvala Fomban
UW LSAMP

Outline

- ▶ Group Activity (keon & nuvala)
 - ▶ How to handle failure in STEM (keon)
 - ▶ How to succeed in STEM (Keon)
 - ▶ Strategic thinking (keon)
 - ▶ Successful STEM professionals & Faces of STEM (Nuvala)
 - ▶ How can you make an Impact in STEM? (Nuvala)
- 

Group Activity

- ▶ Please write down your most significant failure (30seconds)
- ▶ Please write down your most significant success (30seconds)

A Look at Minorities in STEM

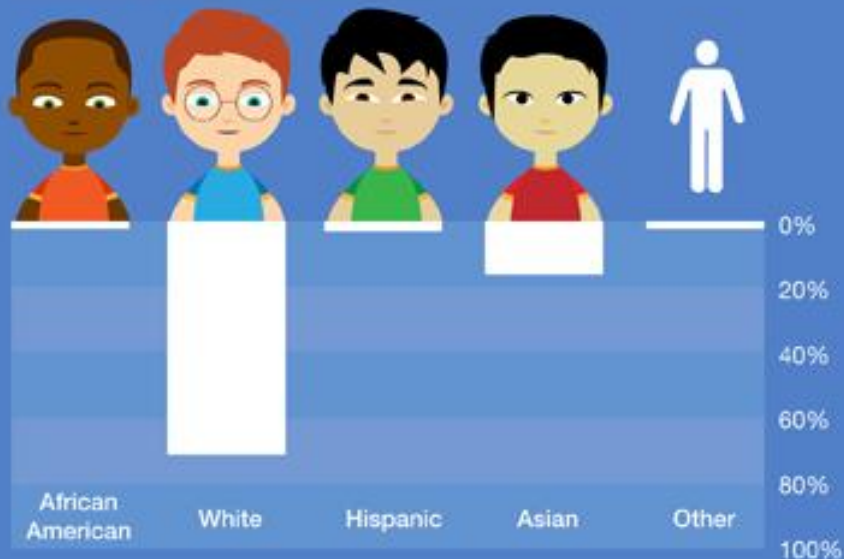
(Science, Technology, Engineering, & Mathematics)

One in five STEM workers is foreign-born. Of those, 63% of foreign-born STEM workers come from Asia.



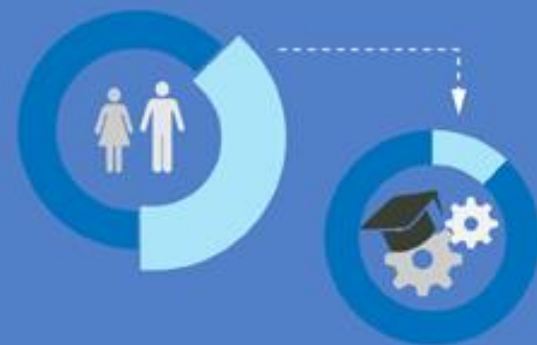
Half of all Asian workers with STEM degrees have STEM jobs, compared to 30% of Hispanics, African Americans and American Indians.

Scientists and Engineers (2006)



1 in 10 STEM professionals is a minority woman

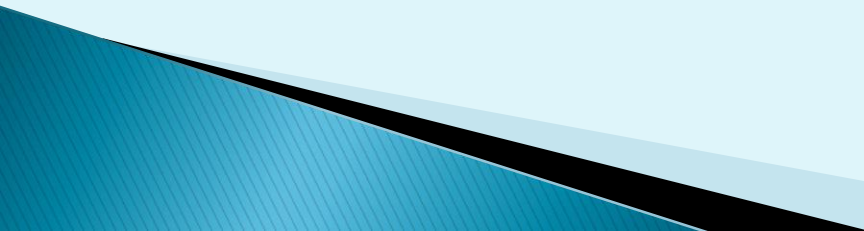
African Americans, American Indians, and Hispanics between 18-24 account for 34% of the population, but earn only 12% of all undergraduate degrees in engineering.



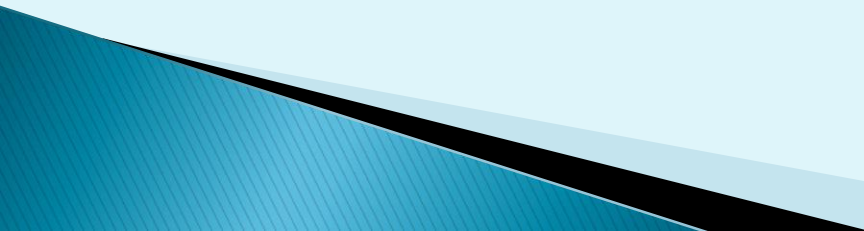
Examples



Failure in STEM

- ▶ “Edison failed 10,000 times before he made the electric light. Do not be discouraged if you fail a few times.” –Napoleon Hill
 - ▶ Everyone fails, the difference is how you rebound.
 - ▶ How bad do you really want it? Are you willing to get to the other side?
- 

Success in STEM

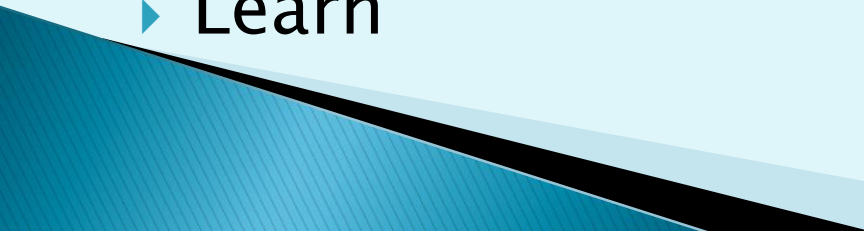
- ▶ Hard Work
 - ▶ Take Responsibility
 - ▶ Act Like You Cannot Fail
 - ▶ If You Fail, Do Fail Miserably
 - ▶ Think, Plan, Succeed
- 

Strategic Thinking

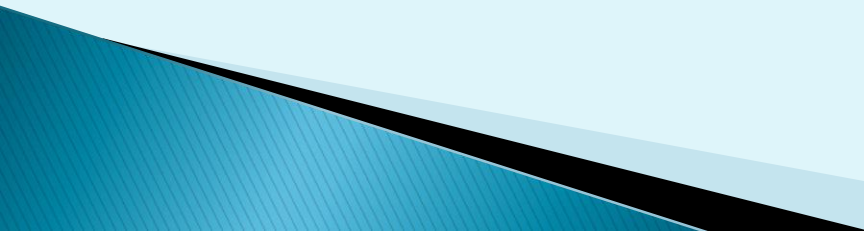
- ▶ What is Strategic Thinking?



Can you be a strategic thinker?

- ▶ Anticipate
 - ▶ Think Critically
 - ▶ Interpret
 - ▶ Decide
 - ▶ Align
 - ▶ Learn
- 

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- 



Antonia Novello



Shirley Ann Jackson



Ellen Ochoa



Mario J. Molina



Franklin Chang-Diaz



John Herrington



Neil DeGrasse Tyson



Freeman Hrabowski

Antonia Novello



Antonia Novello (born August 23, 1944) is a Puerto Rican physician and public health administrator and is the first woman and first Latina to serve as Surgeon General.

Shirley Ann Jackson



- ▶ Shirley Ann Jackson (born August 5, 1946) is an American physicist, and the 18th president of Rensselaer Polytechnic Institute.

Ellen Ochoa



▶ Ellen Ochoa (born May 10, 1958) is an electrical engineer, and the first Latina in the world to go into space.

Mario J. Molina



- ▶ Mario J. Molina (born March 19, 1943) is a chemist who was the first Mexican born citizen to win the Nobel Prize in Chemistry for detecting the hole in the ozone layer.

Franklin Chang-Diaz



- ▶ Franklin Chang-Diaz is a Rican American physicist and former astronaut. He holds the record for most Space Shuttle missions (7). Currently, he is the president of Ad Astra Rocket Company.

John Herrington



- ▶ John Herrington (born September 14, 1958) is a former naval aviator and astronaut. He is the first enrolled member of a Native American tribe to fly in space.

Neil DeGrasse Tyson



- ▶ Neil DeGrasse Tyson (born October 5, 1958) is an American astrophysicist and science advocate.

Freeman Hrabowski



- ▶ Freeman Hrabowski (born August 13, 1950) is a prominent educator promoting STEM fields and advanced degrees.

Dean of Georgia tech

How long it takes to make an impact in STEM

- ▶ Please write down the total number of working hours you have used in building up your career as of today.

Your Inner Genius

- ▶ “Know Thyself” –Your True Self
 - What are a few words to describe yourself?
- ▶ What is your purpose?
 - Think, Write (Plan), Create
- ▶ Develop a Vision
 - What do you want? Why do you want it?
- ▶ Goals
 - Can you align your plans around your Vision?

Closing Remarks

- ▶ Be happy, grateful, yet always uncomfortable
- ▶ You shouldn't seek to be the revolutionary, yet the individual willing to build growth over time (continuous progress is key).
- ▶ “Remember that happiness is a way of travel, not a destination”–Roy Goodman

How can you Impact STEM?

10,000 hours

I will make 3-5 slides for this concept.



