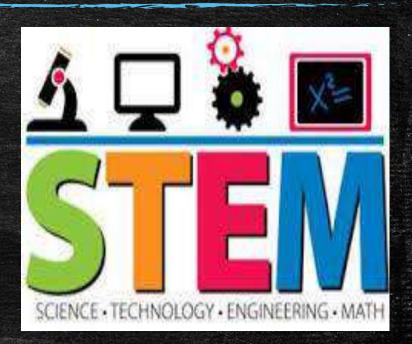
# WB Area STEM Program

## What is STEM?

- Science, Technology, Engineering, and Math
- Student centered learning
- Flipped classroom approach
- Group learning focused
- Project based learning
- Courses include: STEM History and STEM English





## Is STEM for me?



- Do you want to be challenged by innovative lessons and projects?
- Are you willing to work hard including time after school even beyond the school day?
- Do you like technology and are you willing to learn more about it?
- Are you self motivated?
- Do you work well with others in group learning settings?



## Skills You Will Learn in STEM

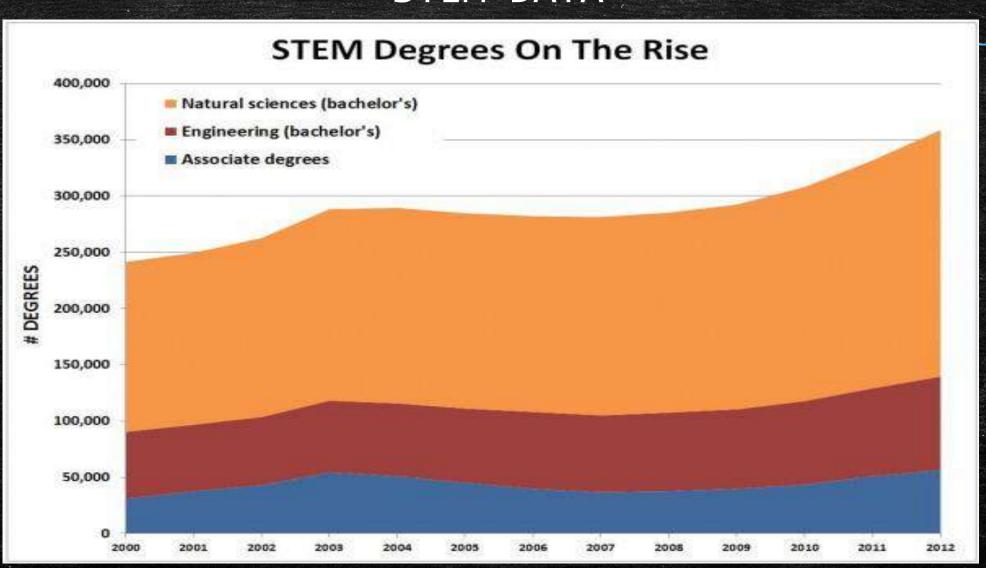
- Critical Thinking Skills
- Oral Communication Skills
- Writing Skills
- Technology Skills
- How to work well with others
- How to meet deadlines
- How to participate in competitions and be successful



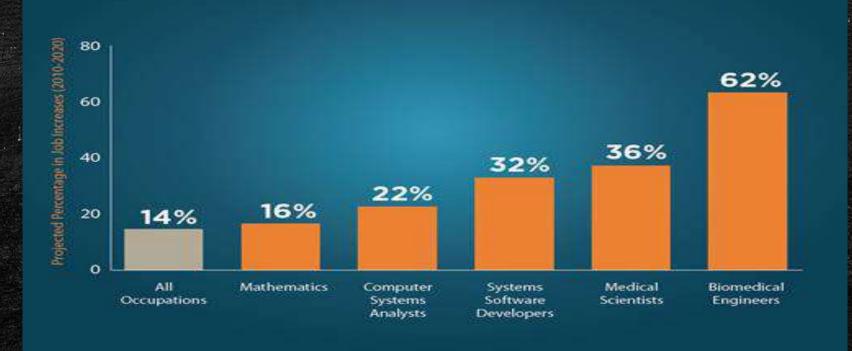


## STEM's Future and You

- STEM is more than just technology and science...
- STEM focuses on skills that will help students in school, now, and in their future careers and college experiences
- You do not have to be interested in engineering to be in STEM
- STEM majors and jobs are the fastest growing, in the most demand, and the most available in the USA for young people



#### PROJECTED PERCENTAGE INCREASES IN STEM JOBS: 2010-2020



STEM Care Technology Engineering Mathematics
IN THE U.S.

80%

OF THE FASTEST GROWING CAREERS

ARE IN STEM FIELDS. Science, technology, engineering and mathematics feed innovation and the economy.



OF ALL STEM JOBS
ARE AVAILABLE TO
WORKERS WITHOUT
4-YEAR DEGREES.

Installation, Maintenance & Repair occupations represent 12% of all STEM jobs that require less than a 4-year degree.



20% of all STEM jobs require an advanced 4-year degree or more in engineering.







A recent Brookings Institute report identifies new information about STEM careers and varying educational needs.









U.S. manufacturing enjoys an 8% wage advantage over all other industries.

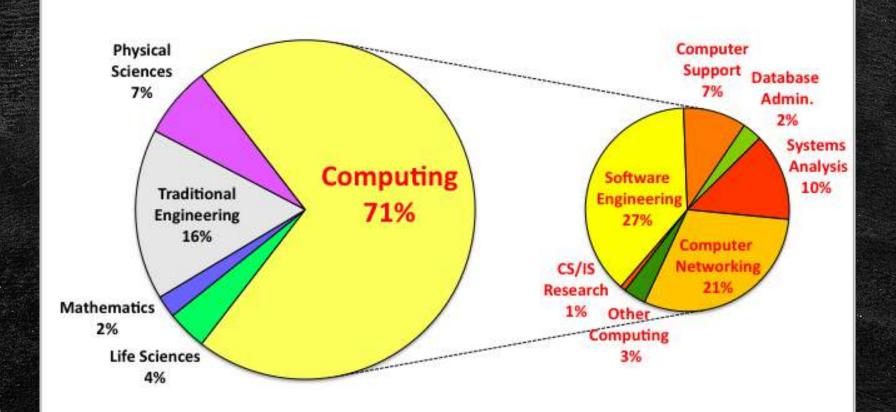




STEM jobs for vocational school and community college graduates have a 10% wage advantage over jobs with similar educational requirements in other industries.

is from Breaking Smithers [1656;9:429-2 perspect by BMT - The Assessment of the Manufacturing Specializing ...

#### Percentage Of New STEM Jobs By Area Through 2018



Data Source: US-BLS Employment Projections, 2008-2018 (http://www.bls.gov/emp/ep\_table\_102.pdf).

- Wilkes-Barre ranks 66 out of top 100 metropolitan cities nationwide for STEM jobs <a href="http://timesleader.com/news/506530/scrantonwilkes-barre-rank-66th-among-100-metro-areas-for-science-and-tech-jobs">http://timesleader.com/news/506530/scrantonwilkes-barre-rank-66th-among-100-metro-areas-for-science-and-tech-jobs</a>
- Wilkes University expanding engineering program <u>http://timesleader.com/news/507011/wilkes-eyeing-downtown-office-building-to-expand-engineering-programs</u>

#### WB Area STEM in the News

- STEM met with Governor Wolf
- STEM met with Bill Finnerty, CFO for Commonwealth of PA
- STEM finished 2<sup>nd</sup> in Regional STEM Competition (by 1 point) in 2015
  - http://www.timesleader.com/news/local-news-news/152271016/
- STEM finished 1<sup>st</sup> place in Regional STEM Competition in 2016 and is going to State Competition
- STEM runs school wide election in November
- STEM uses new technology, "Z-Space"
  - http://www.timesleader.com/news/editorial-ouropinion/152717765/OUR-VIEW-W-B-students-show-future-of-learning
  - http://www.timesleader.com/news/home\_top-local-news-news/152685869/











## Collaboration with PSU WB Campus

- WB Area STEM students will have the opportunity to take 2 college courses per year (one in fall semester and one in spring) after school at Meyers
- These courses will be college level courses in computer science, engineering, etc instructed by PSU WB faculty and students will receive college credit for the courses
- There is a tuition charge of \$393 (75% discount) that PSU WB will charge our students to take these courses

## US History Team Teaching

 Our 2 history teachers in the program, team taught a lesson over several weeks about the War on Terror and its origins from the 1970s through today

This lesson culminated in a trip to NYC to the 9/11 Memorial and

Museum



## STEM Pioneers/Trailblazers

- We are one of the first districts, locally, with a standalone STEM program within the confines of an existing building.
- Many local districts have come to meet with our staff to see how our program operates (WVW, Nanticoke, Wyoming Area).
- The future is here in WB Area, do you want to be a part of it?







