Did You Know...?

Did you know that NASA's James Webb Space Telescope will be able to see 13.5 billion years in the past and its orbit is about 1 million miles (1.5 million kilometers) away from Earth? In fact, as the largest telescope ever built for space, the primary mirror is so massive that it must be folded before launch so it can fit inside the rocket. Then, it's unfolded precisely into place after launch, making it the first segmented optical system deployed in space. We invented new technologies to build this engineering marvel that will revolutionize our understanding of the universe.

Employment of information security analysts is projected to grow 18 percent from 2014 to 2024*, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks.

Did you know the Global Hawk Unmanned Air Vehicle flies at over 60,000 feet altitude? NASA uses the Global Hawk to follow hurricanes across the Atlantic Ocean. An all-female flight crew set a record for longest flight on a single tank of gas with the Global Hawk flying for 34.3 hours straight!

*Source: U.S. Bureau of Labor Statistics

What Is Engineering?

Engineers are changing the world all of the time. They dream up creative, practical solutions and work with other smart, inspiring people to invent, design and create things that matter.

What Do Engineers Do?

- Engineers make a world of difference.
- Engineers are creative problem-solvers.
- Engineering is essential to our health, happiness and safety.
- Engineers help shape the future.

Top Reasons to Love Engineering

- Love your work, AND live your life too!
- Be creative
- Work with great people
- Design things that matter
- Never be bored
- Make a good salary
- Enjoy job flexibility
- Travel
- Make a difference
- Change the world

Awesome Career Path Resources

- TryEngineering.org
- ManufacturingisCool.com
- EngineerGirl.org
- EngineerYourLife.org
- DotDivas.org
- ComputingCareers.acm.org

Engineering as a Career

Is a career in engineering right for you? You may want to ask yourself...

- Am I good at problem solving?
- Am I interested in helping people live better?
- Am I interested in improving the environment?
- Do I ever look at a product and start thinking of ideas on how to make that product better?
- Do I enjoy trying to figure out how machines, bikes, radios or the human body work?

If you answered yes to any of these questions, you may want to consider a career in the field of engineering.

Cool Careers in Engineering

- **Aerospace Engineering**
  Design commercial airplanes and military fighter jets, space telescopes and satellites. They also develop sports equipment such as golf balls and tennis rackets that require good aerodynamics.

- **Electrical Engineering**
  Design, develop, test and supervise the production of electrical equipment, including computers, machines, aircraft, radars and navigation systems.

- **Biomedical Engineering**
  Develop lifesaving technologies and devices related to health care, including medical diagnostic machines, medical instruments, artificial organs and limbs.

- **Environmental Engineering**
  Protect fragile resources of our planet. They translate physical, chemical and biological processes into systems that destroy toxic substances, remove pollutants and eliminate contaminants from the air.

- **Computer Science**
  Research, design, develop and test computer programs and supervise their manufacture and installation.

- **Materials Engineering**
  Your job might be to create shock-absorbent material for a running shoe, enhance the handling ability of snowboards with more flexible materials, or identify steel beams capable of bearing the weight of a bridge.

- **Cyber Security**
  Cyber Security refers to all of the tools we use and actions we take to keep computers, networks and information safe and available for those who need it, and unavailable for those who should not have it.

- **Mechanical Engineering**
  Research, design, develop, manufacture and test tools, engines, machines and other mechanical devices, including generators, internal combustions, turbines and robots in manufacturing.