

# WHERE WILL STEM TAKE YOU?

### SEE WHERE STEM CAN TAKE YOU APRIL 5-8, 2018 WASHINGTON, DC AT THE USA SCIENCE & ENGINEERING FESTIVAL

PHOTO BY BRIAN SKERRY





## INTO THE DEEP BLUE

AWESOME JOBS: Oceanographer, Marine Archaeologist, Geophysicist, Digital Nautical Cartographer, Marine Mammologist

### **COOL STATS**:

- 95% of the ocean is unexplored
- 94% of life on Earth is aquatic
- 6.8 miles is the deepest part of the ocean
- Life on Earth began in the ocean 3.5 billion years ago
- The ocean contains 96% of Earth's water

#### **COLOSSAL CREATURES:**

160 foot long jellies
82 foot Fin Whale
25 foot Giant Oarfish
36 foot Giant Squid
6 foot Leatherback Turtle

Rocket Scientist, Robotics Specialist, Flight Controller

**COLOSSAL BODIES:** 

• 1.3 million Earths could fit

inside the Sun

• 1 billion+ suns could fit inside

the red giant star Betelgeuse

• NASA's first Space Launch System

vehicle weighed 5.75 million lbs fueled

AWESOME JOBS: Astronaut, Spacewalk Trainer, Aerospace Engineer,



### INTO OUTER



### STEM CAN TAKE YOU...

# SPACE

### **COOL STATS:**

- Earth's solar system formed about 4.6 billion years ago
- 12.9 billion miles is the farthest any spacecraft has traveled
- The Earth is 93 million miles from the Sun
- 3,564 confirmed planets outside of Earth's solar system
- 8 hours 56 minutes is the longest spacewalk on record

# INTO NATURE

AWESOME JOBS: Geothermal Scientist, Conservation Scientist, Structural Geologist, Science Photographer, Epidemiologist

### COOL STATS:

- There are 18 volcanoes in the U.S.
- Rain forests make up 6% of the Earth's land surface, but produce 40% of its oxygen
- Bamboo can grow 3 feet in height in 24 hours
- The lowest temperature ever recorded on Earth was -128.6° F in Antarctica

### **AMAZING CREATURES:**

- The black mamba snake slithers up to 7 miles per hour
- Giraffes only need 5 to 30 minutes of sleep every 24 hrs
- An elephant can smell water from 12 miles away & eats up to 300 pounds of food a day
- The heaviest polar bear recorded was 2,210 lbs



### INSIDE THE HUMAN RODV

AWESOME JOBS: Medical Illustrator, Prosthetic Designer, Surgeon, Pharmacist, Audiologist, Chemist, Bioengineer



### **COOL STATS**:

- The human brain contains approximately 100 billion neurons
  Microorganisms in the body outnumber human cells by 10 to 1
- There are 3 billion letters, or base pairs, in the human genome
- The adult human skeleton is made up of 206 bones
- The trillions of cells in the body are organized into just 200 major types

### **POWERFUL PROTEINS:**

- Alpha-keratin protein forms your hair/fingernails
  - Actin and myosin proteins in muscles help you breathe and blink
  - Hemoglobin carries oxygen in your blood
    Enzymes in saliva and the stomach
  - digest food

# INTO CYBERSPACE

AWESOME JOBS: Cybersecurity Specialist, Ethical Hacker, Data Visualization & Graphic Artist, Threat Hunter, Quantum Information Scientist

### **COOL STATS**:

- Less than 40% of internet traffic is generated by humans
- More than 60% of internet activity is generated by bots & malware!
- 30,000 websites are hacked daily
- Cyber crime damages could cost \$6 trillion a year by 2021
- The Cybersecurity unemployment rate is 0%

### **CYBERSPACE SURROUNDS US**

Cyberspace is not a place – Cyber is all around us. It's as infinite as the ideas in your mind!



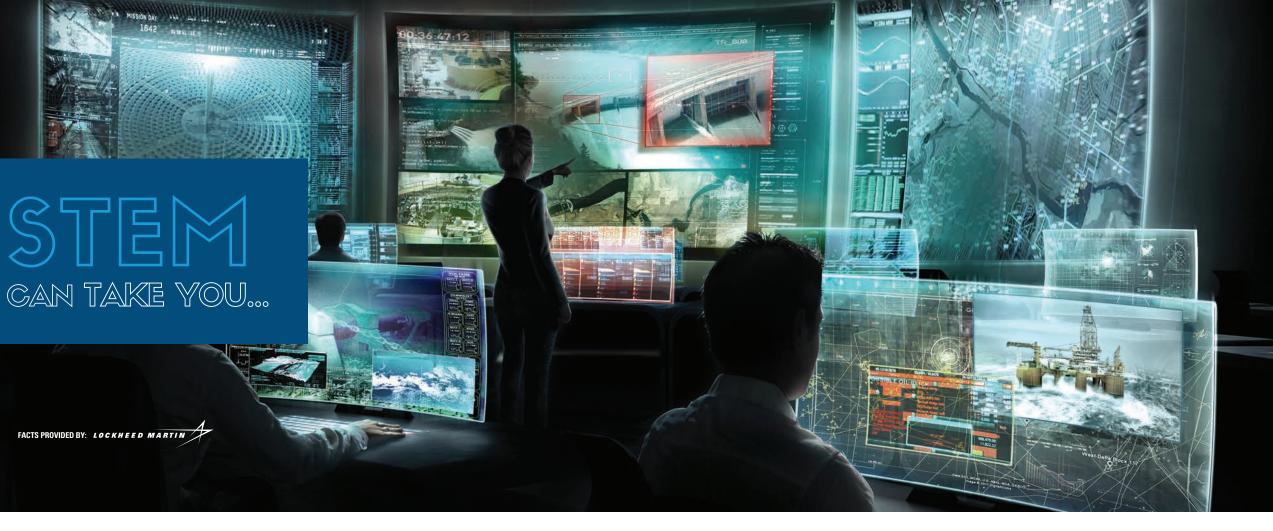
#### DON'T MISS THESE EXCITING 2018 FESTIVAL EVENTS IN WASHINGTON, DC.

















ACT, American Association of Colleges of Pharmacy, American Farm Bureau Foundation for Agriculture, The American Society of Landscape Architects (ASLA),
American Society for Microbiology, Boston Scientific, Carnegie Institution for Science, CASIS, Center for Biotechnology Education at Johns Hopkins University, ePlanetarium,
Genentech, George Mason University, Georgetown University, International Brotherhood of Electrical Workers (IBEW), K'NEX, Merck KGaA, NATCA,

National Institute of Standards and Technology (NIST), Orbital ATK, Space Camp, SpaceX, SPIE, State Department, Thermo Fisher Scientific

