

# CAREER BRIEF

## (Grades 3-5)

### ENGINEER



#### WHAT IS AN ENGINEER?

- An engineer designs and builds products and machines
- There are many different kinds of engineers: industrial, biomedical, environmental, marine, civil, mechanical, petroleum, computer, electrical, nuclear, materials, chemical, aeronautical and software

#### WHAT DO ENGINEERS DO?

- Design projects
- Test projects
- Make sure the projects they create are safe
- Civil Engineers are a kind of engineer that build roads, bridges, buildings and water supply systems

***Fun Fact:*** *The Ferris wheel is regarded as one of the largest engineering wonders of the world. The first modern big wheel was built by Pittsburgh's George Washington Gale Ferris, an engineer for railway technology and bridge building, for the 1893 World's Columbian Exposition in Chicago.*

#### EDUCATION AND TRAINING

- A high school diploma or equivalent (GED)
- A Bachelor's Degree in Engineering: go to college for four years and study engineering

#### SKILLS

- Must work well with a team of engineers
- Find any problems and create solutions for the problem
- Use a computer and learn engineering computer programs
- Pay attention to small details when planning and building

#### CHALLENGE WORDS

- Bachelor's Degree: a degree you get after going to college for 3-6 years

***"Scientists study the world as it is; engineers create the world that has never been."***

***—Theodore von Karman, Hungarian-American mathematician, aerospace engineer, and physicist***