



Did You KNOW...

...**THAT** engineering graduates had the highest average starting salaries—in the low \$40,000--of any college major?

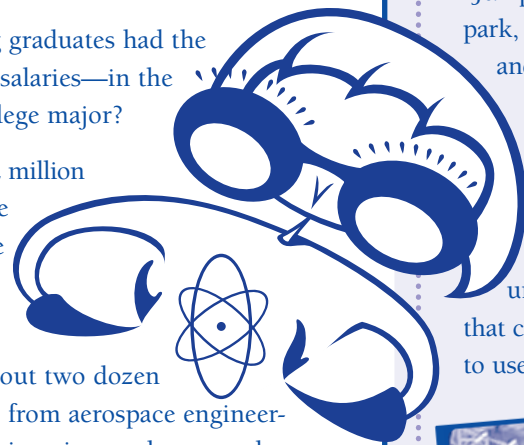
...**THAT** there are 1.2 million engineers working in the U.S. today, making it the nation's 2nd largest profession?

...**THAT** there are about two dozen engineering disciplines, from aerospace engineering to transportation engineering, and many sub-specialties within these fields, offering a wide range of jobs and challenges for these professionals?

For a list of engineering and design competitions open to middle and high school students, visit:

<http://www.asee.org/precollege/html/competitions.htm>

For resources for young inventors, visit: <http://inventors.miningco.com/cs/younginventors/index.htm>



Who Thought Work Could Be This Much fun?

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"Jumpin' Jellyfish" rides, in the California Adventure park, and now works there full-time to ensure the safety and reliability of all the rides in the park.

What's the best part of her job? Bevin believes the "variety and the ability to use my creativity" are the rewards of this career. "I get to work on all kinds of rides, with all kinds of mechanical systems, and with all kinds of people. I always like to understand how things work, and now I get to put that curiosity and my natural problem-solving abilities to use in an incredibly fun environment."



This is a view of the construction of one of Bevin's rollercoaster designs for the new "California Adventure" Disney park.

Web Sites to Check Out

There are hundreds of web sites dedicated to helping you discover the world of design, innovation, invention, and engineering. Here are a few that you can start with. You'll find many more links as you explore.

- www.discoverengineering.org
- www.gettech.org
- www.asee.org/precollege
- www.backyard.org
- www.nae.edu
- www.girltech.org
- www.wieo.org



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IBM Women in Technology, Get Tech!,
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TryScience.org, American Society for Engineering Education, American Society of Mechanical Engineers
National Academy of Engineering
National Engineers Week
Society of Women Engineers

WEPAN Administration Center
Lore-EI Center
Stevens Institute of Technology
Castle Point on Hudson
Hoboken, NJ 07030 www.wepan.org

CONNECTIONS

7TH AND 8TH GRADES

CONNECTING KIDS TO THE WORLD OF ENGINEERING

What Did You Do Last Summer?



to an amusement park? Go to soccer, basketball, or golf camp? Go to the beach? Did you know that engineers make a big contribution to your summer fun? From designing and ensuring the safety of those thrill rides at your favorite park to designing the roads and bridges that take your family on their adventure, to creating special devices in the ocean to keep the sand from washing away, engineers make a difference in nearly everything that touches your world.

What is engineering? Simply put, engineering is applied science, a creative process that uses basic concepts in science and mathematics to solve everyday problems to help make peoples' lives better. There are many kinds of engineers: chemical engineers, who create new and improved foods, cosmetics, and synthetic clothes; environmental engineers, who work to preserve the environment by designing new recycling methods and finding ways to purify air, water, and soil; biomedical engineers, who design artificial limbs, pacemakers, and medical instrumentation; and mechanical engineers, who design cars, manufacturing processes, robotics, and even amusement rides!

Do you enjoy using technology? Like to solve problems? Do you sometimes think about how to make things better? You might have the right stuff to be an engineer!



The ENGINEER'S SPORTING GOODS STORE

with thanks to www.discoverengineering.org

Are you into softball? Ever get a nasty sting when you don't hit the ball exactly on the "sweet spot?" How about mountain biking? Wish you had some extra cushioning to absorb those bumps? Well, engineers are hard at work creating a new breed of sporting goods, known as "smart" gear, to help professional athletes improve their game, reduce injuries, and increase their fun! Engineers create new types of materials and coatings to absorb the shocks that skiers feel as they zoom down a slope. Smart vibration dampening also helps divert that "zing" a softball batter feels when her swing is a bit off center.

Did you know that biomedical engineers design new types of sneakers for all types of sports?



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