girls4tech

STUDENT ACTIVATION

Security Engineer

Malicious Hacker:
Someone who tries to get into your computer or device without permission.

Cybercrime:
A crime that involves a computer, a network or the internet.

Our world is using computers and digital tools more and more. But what if there is a hurricane or tornado that does a lot of damage to networks? What if the power goes out? What if **malicious hackers** get into a computer network and try to commit a **cybercrime**? So many "what ifs." There are a lot of possible tech disruptions in today's connected world, but don't worry! **Security Engineers** are on the job!

SECURITY ENGINEER

Security Engineers design computer systems that are ready for these "what ifs." They predict and solve problems *before* they happen. They also design the security rules and procedures that companies follow. Security Engineers teach employees how to follow the rules, so the company's business stays safe and productive.

IS THIS A GOOD CAREER FOR ME?

Me	Security Engineer
I have a curious mind. I like to predict and solve big problems.	Security Engineers are curious problem solvers.
I love innovation. I get excited about figuring out ways to make something work better.	Security engineers are technology innovators.
I like learning new skills and new information.	Security engineers are always expanding their range of skills and abilities.
I am interested in school subjects like technology, math and science.	Security engineers study computer science and how computers, networks and software work.
I enjoy explaining things. I like working with others.	Security engineers are strong communicators. They enjoy working in teams.

Discovery EDUCATION

Security Engineer

STUDENT ACTIVATION (Continued)

Encode:
To change information into a code to keep it secret from others.

How does this career help me?	How does this career help the world?
Every time your family buys something online, uses a phone to bank, or uses a credit card at a store, they benefit from the work of a Security Engineer. Security Engineers make sure your personal information stays safe and that you can access it during disruptions like natural disasters.	You might have seen reports of data breaches or cyberattacks at familiar businesses. Security Engineers work to protect a company and its customers' data. They try to predict **cybercrime** *before* it happens.

What are some similar careers?

Security Analysts make sure that online business is safe. After a **cybercrime**, Security Analysts figure out how much damage has been done. They make suggestions to fix the damage and keep it from happening again.

Cryptologists **encode** data so that others can't read it. This keeps a company's information safe from outsiders.

Here are ways to practice the skills to be a successful **Security Engineer**:

- Think of something in your life that you want to keep safe and secure. It could be your computer password or even your home. Make a list of what you currently do to keep that thing safe. Then make a list of ideas to make it even safer.
- Research a recent widespread data breach. Investigate what kind of data was stolen or damaged. Then make some recommendations about how businesses and people can protect their information in the future.
- Play some brain games! Give your brain a workout by doing puzzles and brainteasers, learning a new language or making music. All of these activities get your brain into great shape for some quick thinking!