



Educational Topic

Engineering Technician

Related Job Titles:

Physical Science Technician, Data Technician, Engineering Aid, Aerospace Engineering Technician, Architecture Technician, Biomedical Technician, Chemical Engineering Technician, Civil Engineering Technician, Electrical Engineering Technician, Materials Engineering Technician

Job Description:

Engineering Technicians use science, math and engineering to solve technical problems. Most assist engineers and scientists by setting up or installing equipment, testing, maintaining and repairing equipment, conducting experiments, recording results, writing design plans and running tests. Engineering Technicians also gather data from various sources such as field notes, design books and lab reports. They look at the data and report any errors or data that do not fit with the rest. Engineering Technicians usually work in a laboratory, office or construction site. They spend a lot of time on the computer recording data, writing reports and writing design plans.

Interests / Abilities:

- Do you enjoy math and science?
- Are you good at math?
- Do you like to solve problems?
- Are you interested in how things work?
- Do you like working with computers?
- Are you good at working with a team?
- Do you express yourself well when writing?

Suggested School Subjects / Courses:

- Mathematics (algebra, trigonometry)
- Science
- Computers
- Technical drawing/drafting

Education / Training Needed:

At least two years of specialized training in Computer Hardware or Engineering Technology is required. This training may be earned at an institute, vocational school, community or junior college, or from work experience. It is helpful to have some experience from internships or summer jobs in laboratories.

Areas of expertise:

- *Electronics*: help design and lead the production of electrical and electronic equipment such as radar, sonar, navigation equipment and other instruments
- *Engineering drafting*: use graphics to show designs of products before they are built
- *Construction*: oversee the construction or repair of structures or facilities
- *Cartography*: create and edit maps and charts
- *Equipment*: test and maintain equipment

Additional Resources:

- Accreditation Board for Engineering and Technology, Inc.
<http://www.abet.org>
- American Institute of Aeronautics and Astronautics
<http://www.aiaa.org>
- Astrobiology Summer Academy
<http://academy.arc.nasa.gov/>
- Earth to Orbit: Engineering Design Challenges
<http://eto.nasa.gov/>
- Graduate Student Researchers Program
<http://spacelink.nasa.gov/Instructional.Materials/NASA.Educational.Products/Graduate.Student.Researchers.Program.Brochure/.index.html>
- Institute of Electrical and Electronics Engineers
<http://www.ieee.org>
- Junior Engineering Technical Society
<http://www.asee.org/jets>
- MATHCOUNTS Competition
<http://mathcounts.org/>
- Minority University Research and Education Programs
<http://mured.nasaprs.com/>
- NASA Cooperative Education Program for college students
<http://spacelink.nasa.gov/Educational.Services/NASA.Education.Programs/Student.Support/NASA.Cooperative.Education.Program/.index.html>
- NASA Jobs
<http://nasajobs.nasa.gov/>
- NASA SHARP Internship Program for high-schoolers
<http://www.mtsibase.com/sharp/>
- NASA Student Employment
http://nasajobs.nasa.gov/stud_opps/employment/index.htm
- NASA Student Involvement Program student contests
<http://www.nsip.net/index.cfm>

What can I do right now?

- Participate in Bot-Ball or FIRST Robotics competitions (see [Robotics Education](http://robotics.arc.nasa.gov) <http://robotics.arc.nasa.gov>).
 - Take as many math and science classes as you can.
 - Participate in National Engineers Week.
 - Participate in science fair projects.
 - Call the American Association of Science and Technology Centers for information on science museums in your area that you might visit. (202) 783-7200
 - Order activity books, poster sets and engineering kits by writing to the Society of Manufacturing Engineers, One SME Drive, P.O. Box 930, Dearborn, MI 48121-0930.
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- Order NASA career videos such as "Engineers: Turning Ideas into Reality," "Careers: Aerospace Engineer" or "Reaching for the Stars" from NASA CORE.
<http://core.nasa.gov>
 - Revolutionary Vehicle Concepts and Systems student competition
<http://avst.larc.nasa.gov/competitions.html>
 - Robotics Education
<http://robotics.arc.nasa.gov>
 - Student's Guide to Astrobiology
<http://www.astrobiology.com/student.html>
 - Tech-Interns.com
<http://www.tech-interns.com/>

- Please take a moment to evaluate this product at:
http://ehb2.gsfc.nasa.gov/edcats/educational_topic
- Your evaluation and suggestions are vital to continually improving NASA educational materials.
- Thank you.



<http://quest.nasa.gov/people/index.html>