

Grow Your Own Engineer A 10-Step Program

Your Child's Interests	Encourage Your Child to Explore:
Listening to music	Electrical, Audio, Computer & Software Engineering
Going to the movies	Electrical, Mechanical, Computer and Software Engineering
Reading a book	All forms of engineering need technical writers or editors.
Socializing with friends	All forms of engineering develop communication tools.
Playing sports	All types of engineers develop sports equipment.
Riding roller coasters	Civil, Structural & Mechanical are the most common.
IMing friends	Electrical, Mechanical, Computer Telecommunications and Software Engineering
Talking on the phone	Electrical, Mechanical, Computer Telecommunications and Software Engineering
Eating	Chemical, Food, Biomedical, Mechanical and Manufacturing Engineering
Going to the beach	Ocean, Civil, and Environmental Engineering
Fishing	Mechanical, Materials, Electrical and Computer Engineering
Skiing	Mechanical, Manufacturing, Biomedical, Materials Engineering
Cooking	Chemical and Food Engineering
Camping	Civil and Environmental Engineering
Watching TV	Electrical, Audio, Computer, Software and Manufacturing Engineering
Playing an instrument	Electrical, Audio, Computer and Software Engineering
Surfing the Internet	Electrical, Computer and Software Engineering
Inventing stuff	All kinds of engineers invent stuff
Going shopping	Industrial Engineers work for Macy's, Old Navy, and other large clothing chains.
Playing video games	Electrical, Computer and Software Engineering.



To help in your child's career development, be involved. Talk to him or her about favorite activities and interests, and dreams for the future. Be sure that you examine your own views about engineering so that you don't unintentionally reinforce a negative attitude (i.e. saying nerd instead of geek, admitting that you hated math or, making girls think engineering is only for boys). And lastly, have high expectations for your child. Expect him or her to be interested in and do well in engineering, and share how you feel.

To interest more students in STEM careers, both educational institutions and households must make a concentrated effort to breed an atmosphere of encouragement. We must convince our youth that technical careers are not just attainable but fulfilling too.



Engineering Education
Service Center

1004 5th Street, Springfield, OR 97477
www.engineeredu.com

10 Strategies to Nurture an Engineer

1. Keep the Faith - Your child can do it!

Remember that math and science grades are not always good indicators of success in engineering school. My son claims that math is his favorite subject. However, he only has a C in the class because he forgets to turn in his homework. Grades in his case are a poor indicator of his ability and potential.

2. Don't pass on bad math attitudes

Engineering is not all math. It's just one of the tools in the engineer's box. Show your child that math and science are fun by making real world connections. My daughter became very skilled at math because when we went shopping for clothes and the sale price was 20 percent off, she knew she wouldn't get that beautiful jacket unless she could tell me the correct price.

3. Help your child explore careers



I talked to an engineer who told me he loved to fish as a kid. Every chance he got he was out fishing. Wouldn't it be great if your child found the perfect job within his or her favorite hobby? The guy in the fishing story is now the head fishing reel engineer for Pure Fishing, Inc. There are countless stories about engineers finding their dream jobs through their hobbies.

4. Enroll your son or daughter in an engineering camp this summer

Camps are a great way to expose your son or daughter to engineering. See a listing of summer camps here.

5. Promote after-school activities

After-school programs in robotics or math are available at many locations. The best place to search for a quality after-school program is your child's school. To find more programs you can also explore this list of engineering related competitions.

6. Provide subtle communication

If your kids are typical teenagers, sometimes it's very hard to talk to them about career opportunities. If I ask my children to look at a book or catalog, they find a million reasons to ignore my request. A successful strategy in my house is to very quietly leave college catalogs or career books lying

around the house. Make sure they are visible but not too obvious. After a few days or weeks, you may notice that the book or catalog has been moved.

7. Supply direct communication

Many students form their attitudes about careers as a result of their interactions with family members. This can be used to your advantage by inviting to dinner any engineers or people in the field of technology. Encouraging that person to talk about his or her career - how he or she got into it and why it's satisfying. This can be a natural springboard for your child's questions and exploration.

8. Take educational vacations

When you travel around the country or even in your local area, there are many sights that will help your family learn about engineering. Places such as Hoover Dam, the National Inventors Hall of Fame, Thomas Edison's Birthplace, Museums of Ceramics or Aeronautics, roller coasters, etc. can all be educational and fun too. For sights in your area or to help you plan a road-trip, visit www.engineeringsights.org



9. Visit the websites of engineering colleges

Sit down with your child and check out the websites for your local colleges of engineering. Find out what is going on in your local area and look for ways to be involved. Make notes of what each school offers and especially about what seems exciting to your child. Make sure they know how to look for important information such as scholarships and entrance requirements. You can never do this too soon.

10. Find a mentor

Mentoring is successful because it's a one-on-one learning experience that can be so much more than a technical learning experience. Mentors can help students learn approaches into competitive industries, help them network, introduce them to key players, teach them how to listen, and help them evaluate solutions to problems. Mentoring is a part of being successful in any industry but especially for careers that are competitive. MentorNet is good place to begin searching for a mentor if you don't know anyone locally.