

Newspaper in Education Presents

inquiziKidz

BROUGHT TO YOU BY MANATEE COUNTY'S MAGNET SCHOOLS & ADULT CAREER & TECHNICAL EDUCATION

Who should you thank for your bicycle?

Discover the Future

Think about all of the things that a Machinist helped to make. Here are just a few:

- Molds for computer monitors
- Skateboard parts
- Aluminum baseball bats
- Motorcycle parts
- Molds for ballpoint pens
- Metal & plastic chairs
- Tools
- ...just about everything!

For more career information see your school counselor and get information on-line at:
<http://jobstar.org/tools/career/spec-car.cfm>
 OR
<http://www.acinet.org/acinet/default.asp>



Machinist

Thank you, machinists... We love our bikes!

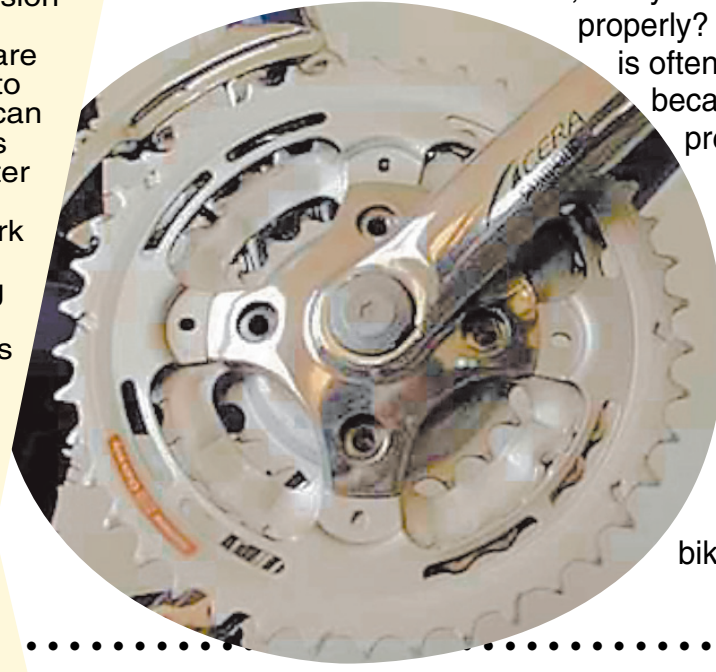
by Vickie Miller

The first modern-style bicycle was built and manufactured by a machinist. In 1885 the Coventry Machinist Company in England made the "Rover" bicycle that became famous. Before long almost everyone was learning to ride a bike....women, men, teenagers, children, farmers, doctors, preachers, even soldiers. Remember, the automobile was not yet invented so the bicycle was used for transportation. Some people just rode for fun. Bicycle clubs were formed throughout the world, and bicycle racing became a big sport.

In the United States in the late 1800s, many machinists became rich fast. In just a few short years 10,000,000 (that's 10 million!) bicycles were made and sold in the U.S. In addition to bicycles, machinists began making other bicycle parts, such as training wheels, rearview mirrors, and bicycle locks. The Wright brothers, who later built the first airplane, first manufactured bicycles in Dayton, Ohio. *Wright Cycle Company* had large profits, and with their income and the help of their machinist they were able to start experimenting with airplanes.

On today's bicycles a machinist is involved in making almost every single item. A machinist starts with a block of metal and then cuts out each piece to very exact measurements. Can you imagine if your gear was not perfectly round, or if your bicycle chain did not fit together properly? That's why the career of machining is often called "Precision Machining," because they make things within very precise measurements.

A machinist can also program a computer to make the parts. This is called CNC machining or Computer Numerical Control. When making the plastic pieces of the bicycle, such as the pedals or grips, plastic is poured into a mold. Of course, it also took a machinist to make the mold to exactly the right size. Thanks, machinists. We love our bikes!



Kidz biz

Freestylist hopes to impact his sport

by Vickie Miller

BMX enthusiast, Conall Kennan, is on the ramp to success. He's realized that there is a connection between his sport and a career in precision machining. That's why after graduating from Lakewood Ranch High School he enrolled in the Precision



Conall Kennan

Machining class at Manatee Technical Institute. Conall said that he wanted to choose a career that was related to bicycles. During the summers Conall is a BMX Freestyle instructor at Woodward Camp in Pennsylvania for youth 10 to 18 years old. He also works part-time at Ringling Bicycles repairing and building bicycles. Now, in the Precision Machining class, Conall is learning how those parts are made, and he has begun to think more about how he can improve the sport, such as making parts that are lighter and stronger.

Keenan's dream is to work for Profile Racing, a company in St. Petersburg that specializes in bicycle parts. Eventually, he hopes to own his own company and obtain a college degree.

Go full speed, Conall. We're wheeling with you!

school biz

Instructor Shares Secrets

by Vickie Miller

Top Secret! That was how one of David Grenier's work projects was classified when he worked as a machinist. In his 26 years as a machinist, one job stands out as the most exciting. He helped make a nuclear fuel



David Grenier

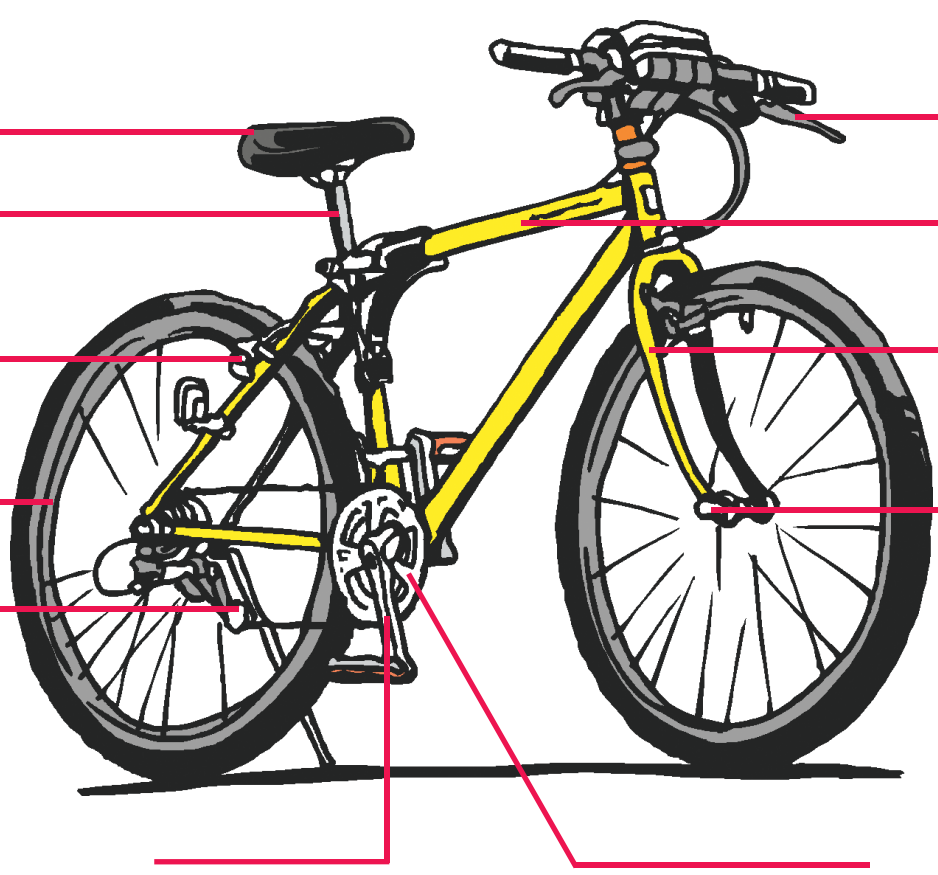
instrument for a submarine. Basically, it was a large tube made out of stainless steel and lined on the inside with dead uranium to protect from radiation. The purpose of this tube was to insert and remove fuel from a submarine, sort of like a very large gasoline pump. This top secret job was one, very big part! Mr. Grenier said that the part was about 10 to 12 feet tall and was so heavy that it kept sinking into the ground. They built a wall around it so no one could see what they were building since it was considered a government secret, and inspectors came in to make sure they were making it properly.

Mr. Grenier enjoys sharing his machinist secrets with his students. He said that students who choose Precision Machining need to have patience, be able to reason things out, and be able to see how things fit and work together.

explore it

Label the parts of a bicycle

- chain wheel
- rear brake
- seat post
- crank
- hub
- frame
- brake lever
- front fork
- derailleur
- saddle
- rim



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Manatee Technical Institute

- Ballard Elementary Magnet
- Daughtrey Preparatory Magnet
- Harlee Middle Magnet
- Johnson Middle Magnet
- Lee Middle Magnet



- Lincoln Middle Magnet
- Manatee Elementary Magnet
- Rowlett Elementary Magnet
- Tillman Elementary Magnet
- Wakeland Elementary Magnet

Schools listed in red offer instruction in the subject area featured in today's InquiziKIDz



- <http://www.pmaef.org/Student/ladder.htm>
- <http://www.jobbankusa.com/ohb/ohb223.html>
- <http://www.collegegrad.com/careers/produ05.shtml>
- <http://www.xap.com/career/careerdetail/career51-4011.01.html>
- <http://www.pmaef.org/Educator/TeachRes/StudentAmb/Choices.pdf>

