

Start Where You Are magazine 2010–2011 curriculum — pages 8–9, lesson 2

Choosing the path through high school: Is a career/tech center right for you?

Objective: Students will identify some advantages of a tech center education, identify programs that relate to the jobs of people they know, and describe the pros and cons of one program that has some appeal to them.

Grade level: 9–11

Teacher prep time: 5–10 minutes

Class time: 20–30 minutes

Materials

- Start Where You Are magazine (volume 1, 2010), pages 8–9 (included here)
- worksheet (attached)

Format: independent work, followed by group sharing

Procedure

1. Introduce students to the idea of technical center programs. What do they know about the types of programs offered? What assumptions do they have?
2. Have students read pages 8–9 of the Start Where You Are magazine and complete the attached worksheet at the end of this file.
3. In small groups, or in one large group, have students share their results for 10–15 minutes. How did their understanding of tech centers change? What is one thing that surprised them?

NCDA guidelines for career management

- use accurate, current, and unbiased career information during career planning and management
- integrate changing employment trends, societal needs, and economic conditions into career plans
- use a process of decision making as one component of career development

Vermont's Framework of Standards vital results

- | | |
|-----------|---|
| Section 3 | Personal Development Standards |
| 3.2 | Students assess how they learn best, and use additional learning strategies to supplement those already used. |
| 3.3 | Students demonstrate respect for themselves and others. |
| 3.7 | Students make informed decisions. |
| 3.15 | Students know about various careers. |
| 3.16 | Students develop a plan for current and continued education and training to meet personal and career goals. |



VTSCA career standards

Academic Development Domain, Standard B: Students will complete school with the academic preparation essential for choosing from a wide range of substantial postsecondary options, including college.

- A:B1.5 organize and apply academic information from a variety of sources
- A:B2.1 establish challenging academic goals in elementary, middle/junior high school, and high school
- A:B2.5 use problem-solving and decision-making skills to assess progress toward educational goals

Academic Development Domain, Standard C: Students will understand the relationship of academics to the world of work, and to life at home and in the community.

- A:C1.3 understand the relationship between learning and work
- A:C1.6 understand how school success and academic achievement enhance future career and vocational opportunities

Career Development Domain, Standard A: Students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decisions.

- C:A1.1 develop skills to locate, evaluate, and interpret career information
- C:A1.3 develop an awareness of personal abilities, skills, interests, and motivations

Career Development Domain, Standard B: Students will employ strategies to achieve future career goals with success and satisfaction.

- C:B1.1 apply decision-making skills to career planning, course selection, and career transition
- C:B1.2 identify personal skills, interests, and abilities and relate them to current career choice
- C:B1.5 use research and information resources to obtain career information

Is a regional tech center for you?

Interested in getting a taste of the “useful arts” while you’re still in high school? If so, you may want to look into one of Vermont’s 15 regional career and technical centers, and two comprehensive high schools. These schools provide an early introduction to technical careers, along with basic training to get you started.

For the location of a technical center near you, and courses at each location, visit www.education.vermont.gov/new/html/pgm_teched/programs/location.html. Here are some of the courses available:

- | | |
|-------------------------------------|---|
| Agricultural mechanics | Emergency & fire management |
| Animation & Web design | Engineering |
| Architecture | Forestry & natural resources |
| Auto body repair | Health careers |
| Automotive technology | Heating, ventilation & air conditioning |
| Aviation technology | Heavy equipment |
| Business/marketing | Horticulture |
| Carpentry | Industrial maintenance |
| Communications technology | Industrial mechanics |
| Computer network management | Information technology |
| Computer programming | Law enforcement |
| Construction site management | Legal services |
| Cosmetology | Medical records |
| Culinary arts | Precision machining technology |
| Dental assisting | Printing |
| Design — visual communication | Salon management |
| Diesel/truck mechanics | Video production |
| Diversified agriculture | Web/multimedia management |
| Drafting & design | Welding/metal fabrication |
| Electrical engineering technology | Woodworking |
| Electricity/electronics occupations | |

What to know if you go ...

If you enroll in one of Vermont’s regional tech centers, you’ll usually spend the full school day at the center while continuing to be enrolled at your “sending high school,” where you may take additional academic classes if you wish. This may be necessary if after high school you’re planning to apply to a technical college or traditional college that requires certain classes such as Algebra II or chemistry.

If the idea of a regional tech center appeals to you, start by doing some up-front research because, as is true with any academic plan, if you’re interested in continuing your education after high school you’ll have to make sure you can graduate with all the credits and classes you need in order to be accepted at the school you’re aiming for.

If you attend a career or technical center in Vermont, dual enrollment opportunities exist for you. Dual enrollment means you can graduate from high school with college credits under your belt! Learn more at <http://fastforward.vsc.edu/>.

In its **Best Careers** series, *U.S. News* recommended some of the following skilled trades:

cosmetologist/hairstylist

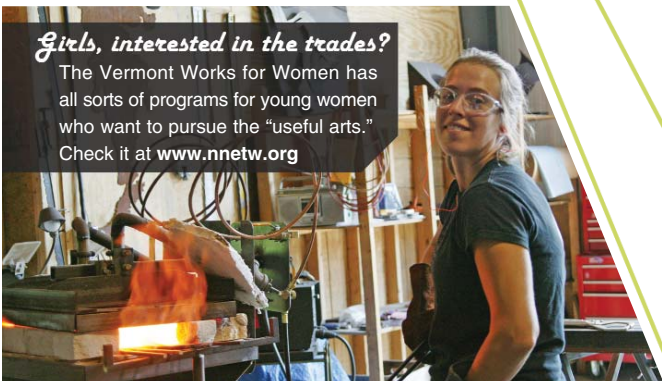
firefighter

machinist

electrician/electronics technician

Girls, interested in the trades?

The Vermont Works for Women has all sorts of programs for young women who want to pursue the “useful arts.” Check it at www.nnetw.org



Vermont Works for Women, Winooski

study **cosmetology @**

- Barre Technical Center *Barre*
- Southwest Vermont Career Development Center *Bennington*
- River Bend Career and Technical Center *Bradford*
- Cold Hollow Career Center *Enosburg Falls*
- Center for Technology, *Essex Junction*
- North Country Career Center *Newport*
- Northwest Technical Center *St. Albans*
- Hartford Area Career and Technical Center *White River Junction*

study **emergency & fire management @**

- River Bend Career and Technical Center *Bradford*
- Windham Regional Career Center *Brattleboro*
- North Country Career Center *Newport*
- River Valley Technical Center *Springfield*
- Northwest Technical Center *St. Albans*

study **industrial mechanics/maintenance @**

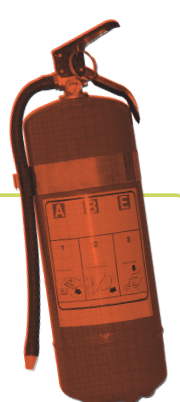
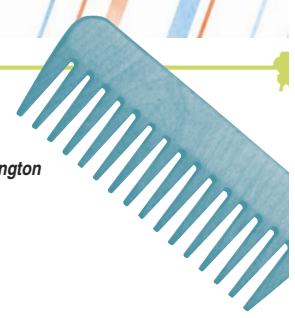
- Green Mountain Technology and Career Center *Hyde Park*
- River Valley Technical Center *Springfield*
- Hartford Area Career and Technical Center *White River Junction*

study **precision machining @**

- Southwest Vermont Career Development Center *Bennington*
- Lyndon Institute Technical Center *Lyndon Center*
- Patricia A. Hannaford Career Center *Middlebury*
- River Valley Technical Center *Springfield*

study **electricity/electronics/electrical engineering @**

- Barre Technical Center *Barre*
- River Bend Career and Technical Center *Bradford*
- Windham Regional Career Center *Brattleboro*
- Green Mountain Technology and Career Center *Hyde Park*
- Stafford Technical Center *Rutland*
- Applied Technology Center at St. Johnsbury Academy *St. Johnsbury*



TRY A TRADE!

equipment manager: You work for a construction company, and one of your responsibilities is to buy new equipment. At the Web sites of manufacturers of big machines — Caterpillar (www.caterpillar.com) and John Deere (www.johndeere.com) — find pricing information for a truck, a bulldozer, and a backhoe. Compare the prices and features of similar machines. Make a chart or poster as way of reporting your findings to your supervisors.

interior designer: A magazine wants you to present a basic design for the ultimate young-adult bedroom. Draw a plan that shows where all the furniture will be placed. Write down specifics about floor coverings, wall colors, window treatments, and lighting. Use pictures from magazines or Web sites, fabric samples, and paint chips from a hardware store to illustrate your ideas.

heating, ventilation, and air conditioning technician: Space that an air conditioner is equipped to cool is measured in British thermal units (BTUs). About 30 BTUs are required to cool one square foot of space. Research four different air conditioners, find their “cool capacity,” and determine the square footage of spaces for which they would work. Where might you use each one? What type of air conditioner would be best for cooling your bedroom? Your classroom? The school cafeteria?

landscape architect: The county in which you live has just designated a piece of land on which to build a new park, and you've been hired to design the landscape. To get design ideas, visit local parks in your area or go online to research famous ones like Central Park in New York City and Lincoln Park in Chicago. Take notes on all aspects of the park: walkways, bike paths, shrubbery, flowers, trees, skate ramps, and facilities. Then make a detailed sketch of your park that includes basic components — parking lot, playground, garden, outdoor stage, and any other features you want to include.

plumber: You're applying for a job at a plumbing company. As part of the application process, you must submit a simple diagram of a toilet and explain how it works. (Feel free to do some research at www.howstuffworks.com or in plumbing guides at the library.)

surveyor: You're about to graduate from a surveying program, and your graduation challenge involves choosing a plot of land and surveying it. Pick a defined area such as the school parking lot or athletic field, and record as many details as possible — include slopes, large rock formations, the size of the land, cracks in the surface, tree growth, etc. Visit www.lrsp.com/lot.pdf for an example of a land survey.

flooring mechanic: You've been hired to tile a room that's 10 feet wide and 25 feet long. The tile the customer selected is a 10-inch square. Assuming a half inch between tiles, draw a diagram to show how many tiles will be needed and how they will be laid down.

Source: Career Ideas for Teens in Architecture and Construction by Diane Lindsey Reeves.



Students at Stafford Technical Center in Rutland got their green on, working at a Route 7 solar project that will supply power for approximately 50 homes. Students in the electrical plumbing program constructed and installed the solar panels, while students in the architecture, engineering, and design program designed the energy shed where the wiring is housed. After removing trees and redesigning the surrounding area, students in the forestry and natural resources program will construct walkways to enable the public to view the project up close and personal.

VERMONT'S “ENLIGHTENED” ELECTRICAL workers go solar!

In 2009, the South Burlington-based union IBEW Local 300 — the Vermont branch of the International Brotherhood of Electrical Workers — invested more than \$100,000 to teach the state's electrical workers everything they need to know about installing, maintaining, and trouble-shooting the latest in PV systems (that's “photovoltaic,” or solar energy, systems).

The training — open to everyone from new apprentices to senior electricians — involves a 32-hour, hands-on course that's extremely popular, with demand outstripping classroom capacity. This may be due to the fact that among green energies, solar power is the least controversial in Vermont: Unlike wind energy projects involving turbine “farms,” solar arrays can simply be built onto or into existing structures, and they create no noise, visual obstruction, or negative impact on local wildlife.

In October 2009, the Vermont Clean Energy Fund announced \$3.1 million in renewable energy grants, including seven projects through Housing Vermont and a grant to build a solar array atop City Market in Burlington. Peck Electric in South Burlington has “enough projects to keep us busy a long time,” said Matt Murphy last year in an interview with *Seven Days*. Murphy, who oversees Peck's solar projects, quit his job as a computer programmer to become an electrician, primarily because

he was so interested in solar power. “There's a huge demand right now,” according to Murphy, and there's more good news as a result of the 2009 stimulus package and Clean Energy Act: Those investments will mean more than 4,000 clean energy jobs for Vermonters.



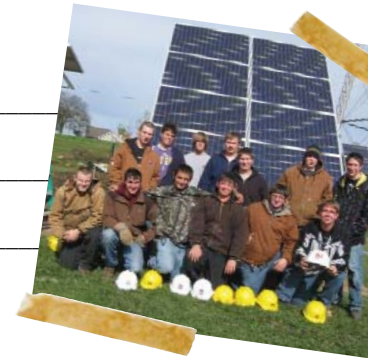


Is a career center or tech center right for you?

Pages 8 and 9 of the Start Where You Are magazine feature information on career programs and technical center programs in Vermont. Read the information on those pages and complete the following items.

Identify three advantages of a tech center education:

1. _____
2. _____
3. _____



Identify any programs that relate directly to the jobs of people you know.

Name of program

**Relationship of person to you
(parent, uncle/aunt, sibling, cousin, friend)**

1. _____
2. _____
3. _____
4. _____
5. _____



Choose one tech program and describe the pros and cons of taking that path through high school:

Pros

Cons

1. _____
2. _____
3. _____
4. _____
5. _____



If you were to choose a tech center education, describe the effect it would have on your own four-year high school plan, including possible benefits and drawbacks.
