



VERSO: Virginia's Online Curriculum Resource

More than 850 Virginia educators are already registered users of VERSO — Virginia's Educational Resource System Online (<http://www.cteresource.org/VERSO/Published/>). Introduced this summer by the Virginia Department of Education and supported by the CTE Resource Center, VERSO is the state's first online curriculum management system for Career and Technical Education.

In August, CTE Resource Center staff offered basic VERSO training and registration instruction to several hundred Virginia educators at the CTE Professional Development Institute in Roanoke. Since that time, Center staff members have conducted workshops for 16 school divisions and other groups to instruct approximately 785 CTE teachers and administrators in how to use the comprehensive online resource.

What's in VERSO?

For all visitors to the site, VERSO provides access to task/competency lists, student competency records, correlations of CTE courses with Virginia Standards of Learning, and industry certification/licensure information, in accordance with Governor Mark Warner's 2003 CTE initiative. For registered Virginia public educators, VERSO also provides access to completed instructional frameworks for Virginia CTE courses. These frameworks include elements such as the following for each task/competency:

- ◇ task/competency definition
- ◇ related Aspects of Industry
- ◇ related certification/licensure requirements
- ◇ related Standards of Learning
- ◇ related student organization events
- ◇ national industry and/or professional standards
- ◇ other information, as directed by the state program specialist (e.g., process/skill questions, collaborative lesson plans)

Now accessible on VERSO are the instructional frameworks listed in the box on page 5.

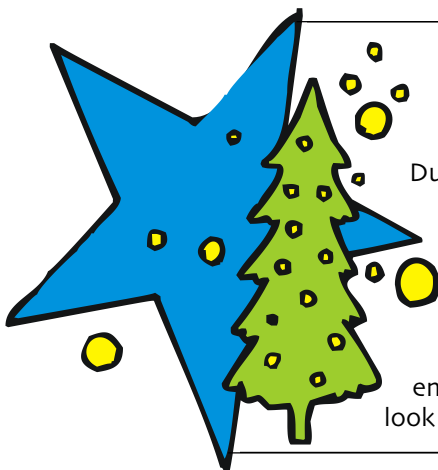
How do I register?

To register for VERSO and choose a password, educators should visit http://www.cteresource.org/VERSO/Published/login_form. Then follow the instructions under the heading Register. Registered users have access to all VERSO resources. Also, they receive email notification as new frameworks are published in the system.

How does it benefit me?

VERSO offers many benefits to CTE educators. It brings all state- and Perkins-required curriculum elements together in one system. It may be navigated using traditional Web-based search techniques. As an online resource, it can be easily and quickly updated or revised, ensuring current information. It is cost-efficient, allowing printing costs to be kept to a minimum, yet giving users the option to print task lists and frameworks, if desired. It holds the potential for unlimited additional resources to be incorporated and linked, making new connections and data available.

Suggestions for additions or enhancements to the VERSO system are welcome. To make suggestions or to ask questions about VERSO use, please contact Glenda Lewis (804/673-3778; glewis@cteresource.org) or Mike Merritt (804/673-3778; mmerritt@cteresource.org). To request a VERSO training session at your locality, please contact Peggy Watson (804/673-3778; mlwatson@cteresource.org).



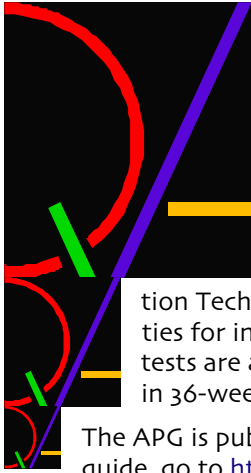
Happy Holidays

During the upcoming holiday season, the Center will close beginning on December 24 and will re-open on January 5. It will also be closed on January 19 in observance of Martin Luther King Jr. Day. To contact the Center during these dates, please leave a voice message at 804/673-3778, send a fax to 804/673-3798, or email the Center at info@cteresource.org. We look forward to working with you in the new year!

Inside This Issue

Curriculum Updates	Pages 2 - 3
Technology Education Projects	4
NAWI Conference	4
VERSO Frameworks	5
Meeting Facilities	6
Plans for Centerview	6

Here's the Latest on CTE Resource Center



APG Revised for Clarification

A revised edition of the *Administrative Planning Guide (APG)* for 2003-2004 has been posted on the Virginia Department of Education Web site. This new edition clarifies the length of courses in Business and Information Technology that may offer opportunities for industry certification. Certification tests are available only to students enrolled in 36-week courses.

The APG is published online only. To access the guide, go to <http://www.pen.k12.va.us/VDOE/Instruction/CTE/apg>. Information contained in the guide includes

- ❖ course descriptions
- ❖ course sequences
- ❖ certification requirements
- ❖ verified credit and diploma seal information
- ❖ elementary, middle, and high school opportunities for career exploration and planning
- ❖ contact information for the Virginia Department of Education, Office of Career and Technical Education.

For complete information about verified credits and other graduation requirements for 2004-2006, go to <http://www.pen.k12.va.us/VDOE/studentsrvcs/guidance-cnsl.shtm>. To see examples of CTE courses offering verified credit opportunities, go to the column labeled "Project Graduation," and click on "Sample Courses of Study that Satisfy Standard Graduation Requirements (Revised)" for a .PDF file; charts begin on page 20.

New FBLA State Handbook Completed

The FBLA State Handbook, revised for 2003-2004, is now available through the Center's online catalog and ordering system. The handbook is available in three formats: a printed copy (#1.03.33); a CD-ROM, designed for Mac and Windows users (#1.03.33C); and a downloadable Zip file containing PDFs of each section of the handbook (#1.03.33Z). To order, visit the Center's on-line catalog (look under "Business and Information Technology") or contact Matt Reinstein (phone 804/673-3778; fax 804/673-3798; email orders@cteresource.org).

For further information on the FBLA State Handbook, please contact Sandy Mills, Virginia FBLA-PBL Specialist (phone 540.868.7043; fax 540.868-7100; email lfmills@lf.vccs.edu).

CyberEthics Web Resources Posted

"CyberEthics" is the latest Featured Resources list on the Center's Web site at <http://www.cteresource.org/publications/featured/index.html>. The hyperlinked bibliography for CTE educators contains resources on

Web security and safety, copyright, privacy, netiquette, and other issues related to the legal and ethical ramifications of Web site development and use. Also included are links to CyberEthics lesson plans and an electronic presentation by Mark Snyder, MSA Consulting Group, on the legal and ethical responsibilities of Internet users.

The CyberEthics bibliography joins several other Featured Resources lists already available for CTE educators on the Center's site:

- ❖ [Academic and Career/Technical Collaboration](#)
- ❖ [Biotechnology for Educators](#)
- ❖ [Career Development](#)
- ❖ [Cooperative Education](#)
- ❖ [Information Technology](#)



New Agriscience Exploration: Grade 7

Agriscience Exploration: Grade 7 (#0.03.01C) is a book of new instructional units that reinforce the teaching of the seventh grade course for Agriscience Exploration (ANR8003).

Middle school Agricultural Education teachers in Virginia received a printed copy of the guide this past summer.

The guide is now available on CD at no charge to Virginia public educators. To order, please contact Matt Reinstein at the Center (phone 804/673-3778; fax 804/673-3798; email orders@cteresource.org; Web <http://cteresource.org/publications/ordering/>).

For more data about the Agriscience Exploration course, please contact Dr. Glenn Anderson, Specialist for Agricultural Education, Virginia Department of Education (phone 804/225-2840; email ganderso@pen.k12.va.us).

Culinary Arts Curriculum: A Joint Effort of FACS and T&I

A writing team of Family and Consumer Sciences and Trade and Industrial Education teachers met in November to write a framework for Culinary Arts (FCS8275, 8276 and TDI8521, 8522, 8523). The new framework will be available through VERSO when all writing team work and Center editing is completed.

For further information on Culinary Arts, please contact Virginia Department of Education specialists Sharron Glasscock, Family and Consumer Sciences (804/225-2826; sglassco@pen.k12.va.us), or Dr. Lee Ross, Trade and Industrial Education (804/225-2828; ross@mail.vak12ed.edu).

Curriculum Projects

Teacher Cadet

Teacher Cadet is a secondary curriculum newly introduced in Virginia to “encourage academically talented students who possess exemplary interpersonal and leadership skills to consider teaching as a career.”

Course competencies for the new course are located at <http://www.cteresource.org/VERSO/Teacher%20Cadet>. The current curriculum for Virginia’s Teacher Cadet program is *Experiencing Education*, developed in South Carolina.

In addition, a new *History of Public Education in Virginia* has been written to accompany the Teacher Cadet curriculum in Virginia. Teacher Cadet students are required to learn about the history of their state’s education system, and teachers may use the information in this document as a basis for their instruction.

For more information on Teacher Cadet, please contact Sharron Glasscock, Specialist for Family and Consumer Sciences, at the Virginia Department of Education (804/225-2826; sglassco@pen.k12.va.us).



Biotechnology Foundations

A working draft for the new course in Biotechnology Foundations was developed this summer and is designed for use by

Agricultural Education, Health and Medical Sciences, and Technology Education teachers.

The course focuses on techniques used to modify living organisms or parts of organisms, to improve plants and animals, and to develop microorganisms for specific purposes. Areas of study include bioprocessing and genetic engineering, medicine, biomechanical systems, and the environment. Students also gain insight into ethical issues related to biotechnology and explore related careers.

Plans are underway for the completed guide to be published in VERSO this winter.

For further information, please contact any of the following specialists at the Virginia Department of Education: Dr. Glenn Anderson, Agricultural Education (804/225-2840; ganderso@pen.k12.va.us); JoAnn Wakelyn, Health and Medical Sciences (804/225-2842; jwakelyn@pen.k12.va.us); George R. Willcox, Technology Education (804/225-2839; gwillcox@pen.k12.va.us).

Pharmacy Technician

Pharmacy Technician (#2.03.01) is a new CTE instructional framework developed by Virginia pharmacy industry representatives and Health and Medical Sciences educators. The guide correlates state course competencies with Virginia Board of Pharmacy requirements and with the national Pharmacy Technician Certification Board standards.

During 2003/2004, the Pharmacy Technician program is being piloted at Norfolk Technical Center, Norfolk Public Schools, and Highland Springs Technical Center, Henrico County Public Schools.

See VERSO for a copy of this new framework (<http://cteresource.org/VERSO>), or order a printed copy (phone 804/673-3778; fax 804/673-3798; email orders@cteresource.org).

For information on Pharmacy Technician, please contact JoAnn Wakelyn, Specialist for Health and Medical Sciences, Virginia Department of Education (phone 804/225-2842; email jwakelyn@pen.k12.va.us).

Business and IT Curriculum Revision

Teachers will meet at the Center on December 9–10 to revise the curriculum frameworks for four Business and Information Technology courses: Computer Information Systems (BUS6612/6614), Advanced Computer Information Systems (BUS6613/6615), Desktop/Multimedia Presentations (BUS6630/6632), and Advanced Desktop/Multimedia Presentations (BUS6631/6633).

The writing teams will address the task/competency list, task/competency definitions, industry certification, and equipment list for the courses, as well as correlate the tasks/competencies to the Standards of Learning. The frameworks will be distributed by the summer of 2004.

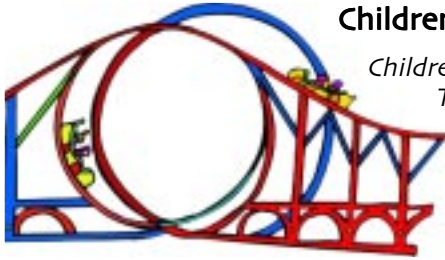
For more information, please contact Anne Rowe, Business and Information Technology Specialist, Virginia Department of Education (phone 804/225-2838; email arowe@mail.vak12ed.edu).

Update of T&I Education Curriculum

Trade and Industrial Education is revising existing task/competency lists and creating new curriculum to be published in VERSO by summer 2004. During the 2003/04 school year, meetings have been slated for the following courses:

- ❖ Advertising Design
- ❖ Automotive Body Repair (Noncertified), Automotive Body Technology (Certified), and Automotive Body Technology (Noncertified)
- ❖ Automotive Service Technology (Certified), Automotive Servicing (Noncertified), and Automotive Maintenance (Noncertified)
- ❖ Business Trades
- ❖ Cabinetmaking
- ❖ Carpentry and Basic Carpentry
- ❖ Computer Networking Hardware Operations I/II/III/IV
- ❖ Cosmetology
- ❖ Electricity and Cabling
- ❖ Graphic Imaging
- ❖ HVACR
- ❖ Masonry and Bricklayer
- ❖ Plumbing
- ❖ Outdoor Power Equipment/Basic Small Engine Repair
- ❖ Precision Machining Technology
- ❖ Radio Communications
- ❖ Television Production
- ❖ Welding

New Products and Projects for Technology Education



Children's Engineering

Children's Engineering: A Teacher Resource Guide for Design and Technology in Grades K-5 identifies technology-based experi-

ences (instructional units) that enhance the content of selected Standards of Learning in English, mathematics, science, and history and social science in Virginia. The experiences enable teachers to introduce children in grades K-5 to the technological world around them.

Published in August, this document is designed to be a companion to the Standards of Learning and a resource for enhancing locally developed curriculum. Formatted as design briefs, the experiences promote critical thinking and problem-solving abilities, and they build upon a child's capability to retain content described in the Standards of Learning. Additionally, these experiences have been correlated to the *Standards for Technological Literacy: Content for the Study of Technology*.

Children's Engineering is available on CD-ROM (#6.03.01). To order, please contact Matt Reinstein at the Center (phone 804/673-3778; fax 804/673-3798; or email orders@cteresource.org).

For further information on *Children's Engineering*, please contact George R. Willcox, Specialist for Technol-

ogy Education, Virginia Department of Education (phone 804/225-2839; email gwillcox@pen.k12.va.us).

Geospatial Technology

The CTE Resource Center is working with Technology Education to develop a high school course, Geospatial Technology. Core areas of study include Geographic Information Systems (GIS), Global Positioning Systems (GPS), Remote Sensing (RS) and Cartography (C).

In this course students will explore and analyze the natural and human-made world—locally and globally—to identify and interpret spatial relationships. Students will use various information technology tools, processes, and techniques to create, store, and access data to solve human challenges. These experiences will employ real-world spatial analysis models and guidelines for integrating and interpreting data, with a focus on both the implications and the limitations of such technologies. Since almost all data include a location/geographic component, these technologies will be of value in virtually every career that involves people, goods/services, or information use.

Details on the course code number, essential competencies, and teacher training will be available in the spring of 2004. This course is scheduled for 2004/05 implementation. For additional information contact George R. Willcox, Specialist for Technology Education, Virginia Department of Education (phone 804/225-2839; email gwillcox@pen.k12.va.us).



Virginia to Host 2004 Annual Conference of the National Association for Workforce Improvement

NAWI Conference, April 28 - 30, 2004, Williamsburg, VA

NAWI's annual conference offers quality professional development for its members and guests through renowned speakers, panel discussions, and small group presentations, all focused on workforce education improvement issues. This year's theme is **Strengthening Academic Skills through Career and Technical Education**. Keynote speakers include the **Honorable Belle S. Wheelan**, Secretary of Education, Commonwealth of Virginia, and **Kimberly A. Green**, Executive Director, National Association of State Directors of Career Technical Education Consortium.

Call for Presenters

The **2004 Conference Call for Presenters** is available on the NAWI Web site (<http://www.nawi.ws/>). Virginia educators are especially invited to participate in the conference and to submit innovative ideas as possible presentations.

More Information to Follow

As we draw closer to conference time, NAWI will send out a complete conference registration packet. If you're not already on NAWI's mailing list or email listserv and would like to receive a packet, please be sure to contact nawi@cteresource.org.

In the meantime, take a look at the NAWI Web site <<http://www.nawi.ws/>> to see what the organization has to offer. Consider becoming a member if you're not one already. Mark your calendar now for the 2004 NAWI conference. Join NAWI's effort to improve workforce education!

Instructional Frameworks Currently in VERSO

The following list cites the CTE instructional frameworks that are online in VERSO, Virginia's Educational Resource System Online.

Agricultural Education

- ANR8054 Advanced Turf Grass Applications
- ANR8055 Floral Design I
- ANR8056 Floral Design II
- ANR8038 Floriculture
- ANR8035 Greenhouse Plant Production and Management
- ANR8034 Horticulture Sciences
- ANR8036 Landscaping
- ANR8037 Specialty Horticulture Arts
- ANR8051 Turf Grass Establishment and Maintenance

Business and Information Technology

- BUS6320 Accounting
- BUS6321 Advanced Accounting
- BUS6613, BUS6615 Advanced Computer Information Systems
- BUS6651 Advanced Computer Network Software Operations
- BUS7771 Advanced Database Design and Management (Oracle)
- BUS6631, BUS6633 Advanced Desktop/Multimedia Presentations
- BUS6641 Advanced Programming
- BUS6609, BUS6610 Computer Solutions
- BUS6660 Database Design and Management
- BUS6632, BUS6630 Desktop Multimedia
- BUS6160, BUS6161 Digital Input Technologies
- BUS6121, BUS6120 Finance
- BUS6670 Information Technology (IT) Fundamentals
- BUS6153, BUS6152 Keyboarding Applications
- BUS6150 Keyboarding (Middle School)
- BUS6151 Keyboarding (Secondary)
- BUS6736, BUS6735 Legal Systems Administration
- BUS6110, BUS6111 Make It Your Business
- BUS6731, BUS6730 Medical Systems Administration
- BUS6242, BUS6241 Notetaking
- BUS6621, BUS6622 Office Administration
- BUS6740 Office Specialist I
- BUS6741 Office Specialist II
- BUS6742 Office Specialist III
- BUS6116, BUS6115 Principles of Business and Marketing
- BUS6640 Programming
- BUS6626, BUS6625 Word Processing
- BUS6132, BUS6131 Business Law
- BUS7137, BUS7135 Business Management
- BUS6617, BUS6611 Computer Applications
- BUS6614, BUS6612 Computer Information Systems
- BUS6650 Computer Network Software Operations

Family and Consumer Sciences

- FCSAAI All Aspects of Industry for the Work of the Family
- FCS8285, FCS8286 Early Childhood Education I, II
- FCS8204, FCS8206, FCS8208, FCS8241, FCS8242, FCS8243, FCS8244, FCS8245 Exploring Work and Family Roles
- FCS8223, FCS8225 Family Relations
- FCS8280, FCS8281 Fashion Design Occupations I, II
- FCS8211, FCS8212, FCS8277, FCS8278, FCS8213 GRADS (Graduation, Reality, and Dual-Role Skills)

- FCS8202, FCS8203 Hospitality Services I, II
- FCS8209, FCS8210 Individual Development
- FCS8295, FCS8296 Interior Design
- FCS8233, FCS8234 Introduction to Early Childhood Education
- FCS8247, FCS8248 Introduction to Fashion Design and Marketing
- FCS8249, BCS8240 Introduction to Food Occupations
- FCS8258, FCS8259 Introduction to Hospitality, Tourism, and Recreation
- FCS8254, FCS8255 Introduction to Housing, Home Furnishings, and Design Occupations
- FCS8226, FCS8227 Life Planning
- FCS8228, FCS8229 Nutrition and Wellness
- FCS8214, FCS8219 Resource Management
- FCS8231, FCS8232 Parenting
- FCS8205, FCS8282 Work and Family Management

Health and Medical Sciences

- HMS8305 Pharmacy Technician

Marketing

- MKT8167, MKT8168 Advanced Travel and Tourism
- MKT8162, MKT8163 Advanced Hotel-Motel Marketing
- MKT8130, MKT8131 Advanced Marketing
- MKT8177, MKT8178 Advanced Sports, Entertainment, and Recreation Marketing
- MKT8110 Fundamentals of Marketing
- MKT8160, MKT8161 Hotel-Motel Marketing
- MKT8125 Internet Marketing
- MKT8111 Introduction to Marketing
- MKT8120, MKT8121 Marketing
- MKT8191 Real Estate Marketing
- MKT8175, MKT8176 Sports, Entertainment, and Recreation Marketing
- MKT8165, MKT8166 Travel and Tourism Marketing

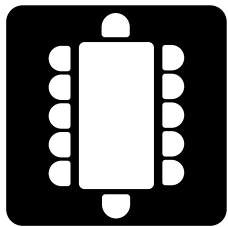
Technology Education

- DTE8492, DTE8437 Architectural Drawing and Design
- DTE9820 Biotechnology Foundations
- DTE8493, DTE8436 Engineering Drawing and Design
- DTE8434, DTE8435 Technical Drawing and Design

Trade and Industrial Education

- TDI8609 Commercial Photography I, II, III (8607, 8608, 8609)
- TDI8621 Computer Maintenance
- TDI8624 Computer Systems Technology I, II, III (8622, 8623, 8624)
- TDI8610 Basic Photography
- TDI8529 Cosmetology I, II, III (8527, 8528, 8529)
- TDI8704 Criminal Justice I, II, III (8702, 8703, 8704)
- TDI8532 Drafting (8530, 8531, 8532)
- TDI8904 Industrial Cooperative Training I, II, III, IV (8901, 8902, 8903, 8904)

CTE Resource Center
2002 Bremono Road, Lower Level
Richmond, Virginia 23226
Phone: 804/673-3778
Fax: 804/673-3798
Web: <http://cteresource.org>



Center Meeting Space Available

Looking for meeting space in central Virginia? Upon request, the CTE Resource Center provides meeting rooms and catering

services to local school divisions and state/local agencies. Use of Center facilities is generally limited to groups affiliated with Virginia Career and Technical Education (CTE) or Henrico County Public Schools. Internet access and computer equipment are available upon request.

There is no charge to these groups for use of these meeting rooms:

- ❖ Computer Lab (approx. 25' x 30'): Comfortably seats up to 25 persons.
- ❖ Conference Room (approx. 12' x 30'): Comfortably seats up to 12 persons.
- ❖ Library: Front area comfortably seats up to 8 persons, and back area, up to 4 additional persons.

The Center schedules its meeting space on a first-come-first-served basis. To make inquiries or to reserve space, please contact Peggy Watson (phone 804/673-3778; email mlwatson@cteresource.org) or submit the online Facility Use and Catering Services Form at <http://www.cteresource.org/services/meetingspace.html>.

For further information, see the Center's Web site at <http://www.cteresource.org/services/meetingspace.html>.

New CenterView Format

This issue of *CenterView* is the last appearance of the newsletter in traditional printed format. With the next issue in February 2004, *CenterView* will be solely an online newsletter with a new look and a new title (*Center News*). It will replace not only the paper copy, but also the What's New section of the Center's Web site.

Advantages to the online format will be

- ❖ the addition of embedded Web links
- ❖ substantial cost savings on paper/printing/postage
- ❖ more frequent publication (bimonthly)
- ❖ quick updating of information
- ❖ the potential to reach a much wider audience.

When a new issue of the newsletter is published, the Center will send out an email announcement to all interested persons. If you would like to be on the notification list, please send an email to the following address: centerview@cteresource.org.

An archive of past *CenterView* issues will continue to be available on the Web site.

To send suggestions, comments, or questions regarding *Center News*, please contact Mary Grattan (phone 804/673-3778; email mgrattan@cteresource.org).

CTE
Resource Center

CenterView is a product of the CTE Resource Center, a Virginia Department of Education grant project administered by Henrico County Public Schools.

Peggy L. Watson, Administrative Coordinator

Mary C. Grattan, Librarian/Editor