



Cooperative Career Education: Curriculum Framework



Missouri Department of Elementary and Secondary Education
Division of Career Education
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FORWARD

Cooperative Education has long been an important part of the program mix for career and technical education programs, whether as a stand alone program based on the coop method or as part of the instructional methodology for programs such as Marketing Education, Health Occupations Education, and others. While program titles have changed from Industrial and Distributive Education to Cooperative Occupational Education, Cooperative Industrial Education, and Cooperative Vocational Education, the underlying concept of applying knowledge and skills learned in the classroom to the worksite remains unchanged. It is our intent to make sure cooperative education remains a valuable part of the program mix for career and technical education even as changes occur throughout the K-12 delivery system by providing a curriculum which develops career skills for all students.

The current change in program title to Cooperative Career Education provides an opportunity to review the program curriculum and goals last revised in 1997. Workplace demands have changed. Preparation of entry level employees has given way to an emphasis on workers with higher level transferable skills. The demands on schools have also changed. Standardized testing, emphasis on mastery of academics, and increased instructional time for the core subjects has placed pressure on all elective courses, particularly those using the cooperative method of instruction.

The purpose of this project is to provide teachers and other curriculum planners with a framework for revising program goals and curriculum standards for cooperative education programs. This framework can serve as the basis for development of a curriculum which meets the needs of the district and its patrons, and best serves the students in the district. This project points the way to strengthening cooperative education in the secondary schools of Missouri.

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Table of Contents

Forward	2
Acknowledgments	3
Table of Contents	5
Introduction	6
Cooperative Career Education	8
Rationale	8
Program Description.....	8
General Program Goals	9
Program Design	10
Skill Initiatives	13
SCANS Background.....	13
Show-Me Standards Background.....	14
21 st Century Skills.....	15
Workplace Readiness	16
Instructional Strategies in the Classroom	18
Project Based Learning	18
Simulation.....	20
Career and Technical Student Organizations	20
Community Service	21
Other work based learning options	22
School Based Enterprises	22
Job Shadowing.....	22
Short Term Internships.....	23
Curriculum Standards and Indicators	25
Summary of Sections	25
Academic Foundations for Careers.....	32
Applied Technology.....	43
Career Development and Employment	52
Entrepreneurship and Business Economics.....	66
Ethics and Social Responsibility.....	86
Leadership and Teamwork.....	96
Safety and Health.....	112
Technical Knowledge and Skills.....	122
Appendix A – Glossary of Terms	129
Appendix B – Scans Competencies and Foundations	141
Appendix C – Missouri Show-Me Standards	148
Appendix D – Coop Policy	153
Appendix E – Off Campus	154
Appendix F – Bibliography	161

INTRODUCTION

The challenge of designing educational programs to meet the current and future needs of society is a daunting one; a challenge which the educational system is not well suited to meet by nature of its structure and its orientation toward academic achievement. When the quickly changing demands of the workplace are added to this design challenge the task becomes even more difficult. Nevertheless teachers and curriculum planners must address the changes in schools and changes in the workplace when designing programs if we are to have students graduate from our schools prepared for all aspects of their future and prepared for the challenges our world will offer.

The information in this project should serve as the basis for curriculum development for Cooperative Career Education programs which serve a wide variety of student occupational interests. Portions may be appropriate for adoption by other career programs which utilize the cooperative education method of instruction. In either case this is a framework only. Additional work is required in order to produce a curriculum guide capable of guiding instruction and assessment.

One goal of the project is to redefine the content and purpose of Cooperative Career Education programs. Past curriculum has focused on classroom instruction and on-the-job activities which had entry level employment as its main goal. Current research on employment skills plus the demands of the workplace and the goals of public education indicate that programs must now prepare students for learning over their life long careers, not only for their first job. This requires a curriculum which includes higher level academic and occupational skills which are transferable across jobs and occupational areas.

The project also has the goal of fostering a variety of instructional methods to support the achievement of these higher levels of learning. Most Cooperative Career Education programs rely on textbooks as at least a reference if not the primary source of curriculum and instructional methods. The inclusion of sample activities with each curriculum standard is an attempt to demonstrate how knowledge and skills can be mastered through a variety of instructional and assessment techniques based on real world activities. This type of instruction in the classroom makes the on-the-job experience even more relevant and beneficial.

A third goal of the project is to encourage teachers and curriculum planners to consider new and innovative program design structures. Programs which break through the constraints of time and tradition may well be precursors for renewing the role of career education programs in the secondary curriculum.

The extent to which this project meets its goals depends upon the vision, energy and commitment of teachers and program planners. The project will be a

Introduction

success if it helps Cooperative Career Programs fulfill its potential by preparing students for success in a rapidly changing world.

Cooperative Education

RATIONALE

Cooperative Career Education (CCE) should play a vital role in the total offerings of a comprehensive secondary education curriculum. The concept of learning by doing has proven to be a strong approach for career preparation since cooperative education was first included in public education during the early part of the 20th century. CCE provides students the opportunity to learn knowledge and skills in the classroom and to apply and test that learning in the workplace. Students develop transferable employability skills and occupational competence which will serve them throughout their continuing education and career. The cooperative nature of the program insures that these competencies are based on industry standards. In addition to occupational competence, CCE programs foster self-directed learning, strengthen the development of core academic skills through application in authentic situations students to explore career options, enhance skills such as communication, leadership and problem solving, and contribute to community economic development. CCE expands opportunities for all students and exposes them to a broad array of career opportunities, work philosophies, and work environments. CCE enhances the school's ability to meet the needs of a diverse student population.

PROGRAM DESCRIPTION

Cooperative Career Education is a career and technical education program based on the cooperative education method of instruction. The program should serve students with a wide variety of career interests, including careers not traditionally considered "vocational". Academic study is combined with paid, supervised employment in a career area of interest. The employment is planned and supervised by the school in cooperation with a business or industry. A formalized agreement between all cooperating parties specifies the role each is to play as part of the program. A written plan of instruction details the knowledge and skills to be mastered. The teacher-coordinator responsible for the program conducts periodic visits to the student's workplace in order to better correlate classroom instruction with employment skills, and to complete evaluations of the student's performance which are supplemented by employer evaluations. Credit is awarded for the classroom instruction and for the on-the-job experience in compliance with established policies. The program is open to high school juniors and seniors as a practical arts elective. Cooperative Career Education programs may also utilize work based learning experiences in addition to cooperative education such as job shadowing, short term internships, career exploration activities and school based enterprises.

The following factors are considered to be components of quality Cooperative Career Education Programs:

Cooperative Education

1. Quality coop placements in which the student is allowed to perform work that both provides opportunities to develop new competencies and contributes to the productivity of the organization.
2. Teacher/coordinators with appropriate occupational experience as well as professional preparation for operating a school-supervised work education program.
3. Close supervision at the worksite by a training supervisor, as well as a mechanism by which the supervisor can share his own professional expertise with the coop student.
4. At the onset, an accurate and realistic description of the job for the student as well as accurate expectations by the employer of the skills the student brings to it.
5. Strong links between job training and related instruction, which includes an individualized, written training plan that is correlated to the students' in-school curriculum.
6. Frequent and specific informal and formal evaluations of the students' progress by the teacher/coordinator, with feedback and follow-up to improve performance.
7. Involvement of parents or guardians.
8. Placement of graduates in full-time positions, or referrals for additional instruction, and follow-up of graduates after three and five years.
9. Strong administrative support for the program.

GENERAL PROGRAM GOALS

The following are goals for the Cooperative Career Education program.

1. Development of occupational competence.
2. Development of higher level, transferable knowledge and skills related to careers.
3. Development of core academic skills through application in the workplace.
4. Development of career knowledge and awareness.

Specific program standards and performance measures can be found in "Program Standards for Marketing and Cooperative Education Programs", DESE Division of Career Education, and Missouri School Improvement Program Standards and Indicators Manual.

Cooperative Education

PROGRAM DESIGN

Cooperative Career Education has two essential elements: classroom instruction and work based learning opportunities. These elements are linked by a planned program of activities which provides the student with an opportunity to apply knowledge and skills learned in the classroom in a real world setting, and to acquire new skills at the work site. A qualified teacher-coordinator who serves in the roles of teacher, supervisor, program administrator, counselor, student organization advisor, and public relations expert has responsibility for operating the program.

The traditional program design is a one-year program for seniors composed of a class and one or two hours of the student's schedule assigned for the cooperative education experience at the workplace. Students earn two or three units of credit upon successful completion of the program. This is a program design well known by educators and potential employers throughout the state. One year programs have been the predominant program design through the years.

Schools must consider options to the traditional program design if Cooperative Career Education is to continue to serve the education and career preparation needs of students. Changes in the structure of secondary education such as increased graduation requirements and block scheduling, along with funding priorities, competing elective courses, and changes in the goals and curriculum for Cooperative Career Education programs provide the opportunity to consider program design options for delivering the benefits of cooperative education.

It should be noted that as programs are redesigned, some basic Department of Elementary and Secondary Education requirements exist concerning instructional time, time spent in on-the-job training, and how applicable hours of credit are awarded. Other guidelines exist for programs operated off-campus. Teachers and administrators who are redesigning programs should be aware of these guidelines. Requests for pilot programs which vary from these guidelines should be submitted to the Division of Career Education, Department of Elementary and Secondary Education.

The following elements should be reviewed when considering program redesign. They are presented here to provide options and inspire new thinking on the design of Cooperative Career Education programs, but are by no means the only elements which could be considered.

Shorter Programs: A program of one semester length which focuses on career exploration and employability skills with concurrent cooperative education placement.

Cooperative Education

Longer Programs: A program spanning two years with classroom experiences the first year supported by short term work based activities such as job shadowing and internship leading to more in depth occupational preparation and cooperative education the second year.

Seminar Programs: Rather than a scheduled class which meets on the regular class schedule, the related classroom instruction is provided on an individualized basis with scheduled seminar meetings occurring during study or advisement time, before, or after the school day. The teacher-coordinator plans and leads the seminar and supervises the students' cooperative education experience.

Summer School: The option of operating the program during summer school provides the opportunity to bridge the gap between class and the cooperative education experience for two year programs, or as a pre-employment workshop and early placement for students enrolled in a one year program.

Specialized Programs: Develop specialized courses where career interests in one occupational area are sufficient to support enrollment. For example, if most students enrolled in the Cooperative Career Education program have career interests in Marketing and are placed in marketing related occupations, then offering a Marketing Education program with related occupationally specific curriculum can best serve the needs of students.

Coop Other Career Programs: The teacher-coordinator can provide cooperative education for students enrolled in other career education programs through close collaboration with the classroom teacher and the workplace.

Coop as a Capstone Experience: Cooperative Career Education can provide a capstone experience for students in a wide variety of career areas, especially those areas not traditionally served by career education programs. A semester or year long cooperative education placement for a student interested in an engineering career for example, supported by instruction on workplace readiness skills, can be a valuable career exploration and preparation experience.

Participation Criteria: Students enroll in Cooperative Career Education with various levels of preparation. Some may require additional preparation in seeking employment, employability skills, or workplace competencies before participating in cooperative education. Selecting students for the cooperative education component of the program who are prepared to participate and benefit from the program while providing assistance for those not adequately prepared adds value to the program.

Other Work Based Experiences: Many of the benefits of Cooperative Career Education can be derived from experiences which are less of a time commitment for students than cooperative education. A program which utilizes a variety of work based experiences in addition to cooperative education could serve more

Cooperative Education

students. Job shadowing, short term internships, simulations, collaborative projects involving the business community, and school based enterprises can all support parts of the Cooperative Career Education curriculum.

Designing a program which can deliver the many benefits of cooperative education will require new thinking, imagination, and a commitment to try new ideas if Cooperative Career Education is to realize its potential in the secondary schools of the future.

SCANS BACKGROUND

The Secretary's Commission on Achieving Necessary Skills (SCANS) was convened in February 1990 by the U.S. Secretary of Labor to examine the demands of the workplace and to determine whether the current and future workforce is capable of meeting those demands. The Commission was composed of distinguished representatives from education, business, labor and government. The Commission was directed to (1) define the skills needed for employment; (2) propose acceptable levels in those skills; (3) suggest effective ways to assess proficiency; and (4) develop a strategy to disseminate the findings to the nation's schools, businesses, and homes. The Commission's final report, Learning A Living: A Blueprint for High Performance, was released to "to encourage a high performance economy characterized by high-skills, high-wage employment."

Based on its research, the Commission identified five competencies — skills necessary for work place success, and three foundation skills and qualities that underlie competencies. A detailed list of the SCANS skills is found in the Appendix.

The competencies are: effective workers can productively use:

- Resources — allocating time, money, materials, space and staff;
- Interpersonal Skills — working on teams, teaching others, serving customers, leading, negotiating and working well with people from culturally diverse backgrounds;
- Information — acquiring and evaluating data, organizing and maintaining files, interpreting and communicating and using computers to process information;
- Systems — understanding social, organizational and technological systems, monitoring and correcting performance and designing or improving systems;
- Technology — selecting equipment and tools, applying technology to specific tasks and maintaining and troubleshooting technologies;

The foundation skills are:

- Basic Skills — reading, writing, arithmetic and mathematics, speaking and listening;
- Thinking Skills — thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn and reasoning;
- Personal Qualities — individual responsibility, self-esteem, sociability, self-management, and integrity

Although the commission completed its work in 1992, its findings and recommendations continue to be a valuable source of information for individuals and organizations involved in education and workforce development. The Commission has urged that school adopt these foundations and competencies

as part of the renewal of secondary education to better prepare students and the country's workforce for the challenges of the future.

SHOW-ME STANDARDS BACKGROUND

The Show-Me curriculum standards are the result of a group of master teachers, parents and policy-makers from around the state charged with creating Missouri academic standards as a result of the Outstanding Schools Act of 1993. The standards are built around the belief that the success of Missouri's students depends on both a solid foundation of knowledge and skills and the ability of students to apply their knowledge and skills to the kinds of problems and decisions they will likely encounter after they graduate. The Show-Me Standards include Academic Standards and Content Standards.

The academic standards incorporate and strongly promote the understanding that active, hands-on learning will benefit students of all ages. By integrating and applying basic knowledge and skills in practical and challenging ways across all disciplines, students experience learning that is more engaging and motivating. Such learning stays in the mind long after the tests are over and acts as a springboard to success beyond the classroom. The academic standards are grouped around four goals:

- Goal 1 -- Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.
- Goal 2 -- Students in Missouri public schools will acquire the knowledge and skills to communicate effectively within and beyond the classroom.
- Goal 3 -- Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.
- Goal 4 -- Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.

Missouri students must build a solid foundation of factual knowledge and basic skills in the traditional content areas. The statements listed here represent such a foundation in reading, writing, mathematics, world and American history, forms of government, geography, science, health/physical education and the fine arts. This foundation of knowledge and skills would also be incorporated into courses in vocational education and practical arts. Students would acquire this knowledge base at various grade levels and through various courses of study. Each grade level and each course sequence would build on the knowledge base acquired at a previous grade level or in a previous course.

Combining what students must know and what they must be able to do may require teachers and districts to adapt their curriculum. To assist districts in this effort, teachers from across the state are developing curriculum frameworks in each of the content areas. These frameworks show how others might balance

Skill Initiatives

concepts and abilities for students at the elementary, middle and secondary levels. These models, however, are only resources. Missouri law assures local control of education. Each district has the authority to determine the content of its curriculum, how it will be organized and how it will be presented.

These standards for students are not a curriculum. Rather, the standards serve as a blueprint from which local school districts may write challenging curriculum to help all students achieve their maximum potential. Missouri law assures local control of education. Each school district will determine how its curriculum will be structured and the best methods to implement that curriculum in the classroom.

A complete listing of the Show-Me Standards is found in the Appendix.

From DESE website: <http://www.dese.mo.gov/standards/index.html>

21ST CENTURY SKILLS

Today's students are living in a world which will require more of them than their schools are preparing them to deliver. A wide variety of economic, technological, demographic, and political changes have changed the way people live and work. The rate of change will accelerate into the future. Schools must close the gap between the knowledge and skills most students learn today in school and the knowledge and skills required for success in the communities and workplaces of the 21st century.

The Partnership for 21st Century Skills is a private-public organization which brings together the business community, education leaders, and policymakers to define a powerful vision for 21st century education to ensure every child's success as citizens and workers in the 21st century. The Partnership encourages schools, districts and states to advocate for the infusion of 21st century skills into education and provides tools and resources to help facilitate and drive change.

Member organizations in the Partnership for 21 Century Skills include: Agilent Technologies, American Association of School Libraries, American Federation of Teachers, Apple, Cable in the Classroom, Cisco Systems, Inc., Corporation for Public Broadcasting, Dell Inc., ETS, Ford Motor Company Fund, Intel, JA Worldwide, Microsoft Corporation, National Education Association, Oracle Corporation, SAP, Texas Instruments Incorporated, Time Warner, Inc. and Verizon.

The Partnership proposes six key elements for fostering 21st century learning. These elements are:

Skill Initiatives

1. Emphasize core subjects. Learning for the 21st century is built not only upon mastery of the core subjects at the basic competency level, but must also include understanding the core subjects at higher levels of learning.
2. Emphasize learning skills. Students need to know how to keep on learning by mastering the three broad categories of learning skills: information and technology, thinking and problem solving, and interpersonal and self-directional skills.
3. Use 21st century tools to develop learning skills. Students must master digital technology to access, manage, integrate and evaluate information, construct new knowledge, and communicate with others.
4. Teach and learn in a 21st century context. Students need to learn academic content through real world examples, applications, and experiences both inside and outside school.
5. Teach and learn 21st century content. Three areas critical to success in the 21st century communities and workplace are: global awareness, financial, economic and business literacy; and civic literacy.
6. Use 21st century assessments that measure 21st century skills. High quality standardized testing must be accompanied by classroom assessments to improve teaching and learning.

Preparing students for the 21st century requires schools to stress the what, that is the content, of knowledge and skills required for success, but also to stress the how, the methods used to learn these skills. Career education, particularly those programs which use work based learning methods such as cooperative education, has a long history of developing academic competence through application experiences in the real world. Cooperative Career Education programs should emphasize 21st century content and context as part of their curriculum planning process.

WORKPLACE READINESS

Workplace readiness is the combined general knowledge, skills and attitudes identified by employers as being fundamental for an individual's entry into employment. Workplace education programs should endeavor to produce a quality workforce by developing academic, technological, personal, and technical skills through application experiences within a broad context of careers.

Workplace education programs can be pre-employment school based programs supported by more in depth skill development in career education programs at the secondary and postsecondary levels, or they can be work based programs delivered as formal or informal training. The extent of change within jobs requires that an employee be prepared to learn and gain new knowledge throughout their career.

Skill Initiatives

The model for secondary education remains firmly rooted in the industrial age in spite of attempts at reform. This design, which is based on fragmented subjects delivered on an agricultural calendar with learning constricted to a finite amount of instructional time, is still the primary structure of secondary schools even though the work world has changed drastically since the early 20th century. The Bureau of Labor statistics in *Working in the 21st Century* has identified the following workforce changes:

- ◆ The labor force is growing more slowly
- ◆ The labor force is getting older
- ◆ More women are working today than in the past
- ◆ Minorities are the fastest growing part of the labor force
Immigrants are found at the high and low ends of the education scale
- ◆ Education pays
- ◆ Some jobs with above-average earnings do not require a bachelor's degree, but most require substantial training
- ◆ Workers with computer skills are in demand
- ◆ The ten occupations that will generate the most jobs range widely in their skill requirements
- ◆ Benefits account for more than one-quarter of total compensation
Retirement plans are changing
- ◆ Workers will be supporting more Social Security recipients
- ◆ The trend in years spent with an employer is down for men and up for women
- ◆ The temporary help industry has grown rapidly
- ◆ The most common alternative employment arrangement is independent contractor
- ◆ Most mothers work
- ◆ Married couples are working longer
- ◆ The workplace is becoming safer

Clearly the nature of work and the demands on the workforce are different for students today than they were for their parents and grandparents. The very structure of schools must change, as must the goals. The emphasis on standardized test scores which measure mastery of core academics cannot alone address the need for a world class education which prepares students for entry into a complex, rapidly changing, highly competitive, interdependent world. Cooperative Career Education programs should build upon the base of academic skills, provide opportunities to enhance those skills through application in authentic workplace activities, and provide the employability and occupational knowledge and skills required for the workforce of the 21st century.

Instructional Strategies in the Classroom

PROJECT BASED LEARNING

Learning by doing has been a long standing practice in education. Just as cooperative education applies that concept to learning at the worksite, project based learning in the classroom replicates the type of learning and decision making which occurs on the job.

Two factors emphasize the need for incorporating project based learning into Cooperative Career Education programs. It is widely understood that learning does not occur in isolation – that students learn within the context of their world. Learning is partly a social process which takes place within the context of culture, community and past experiences. Students use what they already know to construct new knowledge and solutions to problems. Project based learning places the focus of teachers and students on the learning process rather than the retention and repetition of facts. The result is higher levels of learning.

The second factor which supports the use of project based learning is the changing nature of the work world. The early demands of the industrial age required workers who could competently perform repetitious, discrete tasks in isolation from other workers around them. The educational structure which evolved at that time mirrored the industrial model by stressing the acquisition of knowledge in separate subjects taught as unrelated topics. Most educators now realize that education must change, as modern industry has changed, to meet the challenges of the 21st century. Today's students must acquire both knowledge and learning skills if they are to be part of a globally competitive workforce.

Project based learning offers several benefits when incorporated into the curriculum.

- ◆ Student motivation to learn is increased because they are engaged in pursuing their own interest within the context of the project. Students frame the questions, use technology to seek answers, make decisions based on that information, and are involved in the evaluation of the project. Projects are challenging and adapted to individual learners.
- ◆ Interdisciplinary learning is enhanced. Students are required to integrate academic skills with occupational competencies in order to complete the project.
- ◆ Topics are explored in depth with an emphasis on understanding and application of skills rather than a broad coverage of subject matter. Students have an opportunity to develop higher levels of skill necessary for success in the workplace.
- ◆ Projects are based on real world problems which are relevant and interesting to students. Students will develop knowledge and skills in the context of the workplace at a level required by employers.

Instructional Strategies in the Classroom

- ◆ Learning skills will be enhanced because students are empowered to direct their own learning. Project based learning develops the social, personal and collaborative skills necessary for continuing learning throughout a career.

Project based learning should be a component of the instructional program for Cooperative Career Education. When planning for project based learning several factors are important.

- ◆ Select a project which is based on a question central to the curriculum topic. Clearly identify which standards and objectives will be taught through implementing the project.
- ◆ Carefully plan the logistics of the project to include materials which might be required, access to technology, potential roadblocks and how to overcome them, student grouping and leadership assignments, timelines, and acceptable options in terms of product.
- ◆ Understand that the role of teacher changes from dispenser of information and controller of learning to that of mentor, observer, communicator, and learning guide when project based learning is incorporated in the curriculum. Be prepared for varied levels of participation, students pursuing questions which seem tangential to the project, and a certain level of chaos as students leave the traditional expectations for classroom behavior for the self directed learning of projects.
- ◆ Design a variety of assessment opportunities while remaining focused on student mastery of the selected curriculum standards and objectives. Teacher checklists and rubrics are certainly one part of the assessment process. Other options should include periodic student reflection during the project activities which might include journaling, student discussion or written critiques. In additional self evaluation and peer evaluation at the conclusion of the project provide an opportunity for students apply their own expectations to the learning which resulted from the project. Individual and group presentations also help build on the learning process.
- ◆ Keep notes of what worked and what didn't work during the project. Teacher leaning about how to use projects for teaching curriculum standards is very much a part of the process. Realize that things won't go exactly as planned, that not all instructions and materials will be adequate, and that individual students and groups will pursue projects differently. Professional development opportunities focusing on using project based learning can also be helpful when available.

Many of the sample activities provided on the guide sheets in this project can be developed into project based learning activities. Consult one of the many resources available for planning and implementing project based learning, and then add it to the tools you have at your disposal to deliver a quality Cooperative Career Education program.

Instructional Strategies in the Classroom

SIMULATION

Simulations have been a part of educational methods for many years but are generating renewed interest with the increased availability of technology in schools. The business, scientific military, and medical areas are using simulations and gaming powered by technologies which create a virtual reality context for learning. Even without the use of technology the concept of learning in a simulated reality has educational merit.

Well designed simulations build collaboration and teamwork among students. Grouping and teaming students to work through a simulation replicates the situations often found in the work world. Simulations also provide an opportunity to receive feedback on performance, either during the operation of the simulation or through post-simulation evaluation. Simulations can motivate and empower students to problem solve and pursue their own learning, both skills necessary for success in the workplace.

While a great deal of interest is generated by simulations based on the technology of virtual reality, classroom simulations can take many forms. The simplest among these is the traditional case study approach to presenting problems and decision making. Projects based on real world activities and problems also represent a basic type of workplace simulation. Practice sets like those often found in accounting courses can simulate the work world in enough detail to provide real world learning experiences. Role playing can replicate situations found in the real world and allow the student to apply various solutions to problems. Simulations powered by computer software are powerful tools for replicating the work world. These programs provide feedback on decision making, introduce a wide range of variables, allow controls to be set by the teacher, and generate high levels of interest through their visual appeal. These benefits are increased when simulations are expanded beyond the classroom to on-line simulation and gaming programs.

Simulations which place the student in a real world setting as a context for learning and applying the curriculum competencies should be part of the curriculum for Cooperative Career Education programs. Students can develop skills in the controlled environment of the classroom which can then be applied through the cooperative education experience. The result is a student better prepared to meet the demands of the workplace.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Student organizations are a vital component of every career and technical education program. CTSOs are a unique educational method which builds

≡ Instructional Strategies in the Classroom

student engagement in their education, provides recognition, develops leadership, creates self-esteem and self-confidence, and makes the student aware of the role of school and community service in the growth and well being of their community. CTSO activities are integrated into instruction which leads toward mastery of curriculum competencies. They link school programs to the real world to enhance both school based and work based learning with the goal of better preparing students for the workforce and continuing education. A Career and Technical Student Organization should be an integral part of the instructional program for Cooperative Career Education programs.

COMMUNITY SERVICE

Community service projects contribute to the effectiveness of Cooperative Career Education programs by extending the classroom into the community. Community and school service projects, also referred to as service learning, enriches learning by engaging students in meaningful service which is integrated with classroom instruction. These activities are a vehicle for development of academic, personal and occupational skills. Community service also creates a sense of personal and social responsibility. In addition to skill development community service projects allow the student to reflect on their own personal and career interests in areas associated with the service project.

Quality community service projects have the following characteristics:

- ◆ Organized service activities
- ◆ Meet the needs of the community
- ◆ Fosters civic responsibility
- ◆ Integrated into academic coursework
- ◆ Provides reflection time for students

Community service can be a valuable instructional method for developing the knowledge and skills in the Cooperative Career Education curriculum. Teachers should seek opportunities to engage their students in service projects which are consistent with the curriculum standards. Support for the projects may be available through local, state, or corporate grants. Partnering with other community service organizations can be an effective way of getting students involved in service activities. Community service can be an important activity for students and for programs.

Other Work Based Learning Options

Cooperative education is a proven instructional method with a long history in career and technical education programs. While the expectation is that students enrolled in Cooperative Career Education program will participate in the cooperative education component, the program may include other work based options to assist students with meeting the program curriculum standards. One or more of these options could be incorporated into Cooperative Career Education based on program design, student needs and interests, course scheduling requirements, or the availability of quality job placements in the community.

SCHOOL BASED ENTERPRISES

School based enterprises provide for the application of classroom learning and the acquisition of new skills in a workplace environment under the direct guidance and control of the school. For some students participating in a school based enterprise is their first work experience. For others it provides the opportunity to develop higher level skills in management, supervision and leadership. School based enterprises are new to many in education, but have been part of career and technical education programs for many years, particularly programs in Marketing Education.

School based enterprises are one optional component for work based learning. Students are actively engaged in the planning, development and operation of an actual business. While most school based enterprises are variations of the school store, other examples range from banks to ad agencies, floral shops to landscaping services, and restaurants to home catering businesses. Revenues generated from school based enterprises are used to support educational needs in the schools. Fund raising activities, when planned and conducted with student involvement and responsibilities, can be used as enterprises for learning when the activities are tied to learning and assessment of the curriculum standards.

School based enterprises can be a vital learning tool for Cooperative Career Education programs. School based enterprises can provide replication of the work world in a controlled environment when properly integrated into the curriculum. To reach the full potential of school based enterprises teachers need to ensure that they have student learning as their primary goal. The need to generate revenue can overshadow the learning value of the enterprise. When student participation is not carefully planned and monitored the enterprise can become another job responsibility for the teacher.

JOB SHADOWING

Job shadowing is a work based learning option where students learn about a career of interest by following a host employee through their work day. Job

Other Work Based Learning Options

shadowing typically lasts one or two days per placement and is an unpaid experience for the student. Job shadowing allows the student to observe the workplace environment first hand. They see how occupational, academic, and employability skills are applied in the career area, and the value of preparation for careers. Students observe a variety of tasks without actually being involved in any hands on activities.

Job shadowing can be an effective work based learning option for Cooperative Career Education programs, particularly for students who are still exploring career interests. This effectiveness can be enhanced by careful planning of the job shadowing experience. A host employee should be identified by the company and briefed on the purpose of the visit and agenda for the day. Students should prepare a list of questions for the host, guided by research on the occupational area and teacher suggestions. Tours of the company should be an early part of the experience so that students have a broad understanding of the context for the roles and responsibilities of the host employee. Host employees should include their own education preparation and the continuing educational requirements as part of the explanation of their job. Teachers should include a summary assignment for the student to stimulate their analysis and synthesis of the job shadowing experience.

Job shadowing should be considered a prerequisite or supplemental activity for students enrolled in Cooperative Career Education programs. The purpose of such activities in these programs is to better prepare students for the cooperative education experience. As such they are another tool available to the teacher in designing a quality program.

SHORT TERM INTERNSHIPS

Internships have many of the same characteristics as cooperative education but several differences. Internships may or may not be paid work experiences. Internships generally have goals of experience in the career area and the application of learned skills in a work environment rather than the development of new skills. Internships are most often viewed as culminating activities after completion of a course of study. Even with these differences, the term internship is increasingly being applied to the cooperative education experience because it is a term commonly associated with workplace learning as part of a school program.

Internships provide directed learning experiences in actual job experiences. Students learn the requirements of the career area and how the knowledge and skills they have learned in school are applied on the job. Students gain work experiences which assist them with the transition to full time work and refinement of career goals for further education. Students make connections with people in the work world who can provide recommendations and career assistance.

=====**Other Work Based Learning Options**

Businesses get the opportunity to screen interns for future employment and use the internship process as a recruiting tool for future employees.

Short term internships can be an important work based learning option for Cooperative Career Education programs. Short term is defined as placement of nine weeks or less. Placement of longer than nine weeks raises questions about issues regarding the employment relationship between student and training station, liability, and compliance with program operational policies. The short term nature of the placement is more adaptable to the varied demands of a student's class schedule, graduation requirements, and other school related activities. A student could participate in several internships in a variety of businesses during the school year.

The requirements for conducting a quality internship experience are much the same as those required for cooperative education. There should be a written agreement with responsibilities and expectations clearly listed for all parties. The teacher in cooperation with the business and student should develop a list of job duties and responsibilities the student will assume during the internship experience. These should be correlated to the program curriculum standards. There should be a process in place to assess the student's internship experience and for the student to reflect on the contributions the experience made to their career preparation.

Cooperative Career Education teacher-coordinators and curriculum developers should consider these and other work based learning options when designing quality, effective programs with enough flexibility in delivery methods to meet the needs of students, the school and the community.

Curriculum Standards and Indicators

SUMMARY OF SECTIONS

The curriculum sections in this project provide basic information for developing a curriculum guide. At the beginning of each section is a list of the topics, performance indicators for that topic, standards, and objectives for that performance indicator. A shorter list which does not include the objectives is also included for quick reference.

Within each section the performance indicators, standards and objectives are assigned a code number. Performance indicators are assigned a letter with standards numbered under that letter. Individual objectives related to that standard then are assigned a code with the performance indicator letter, standard number, and objective number. The first performance indicator, first standard and first objective in Entrepreneurship and Business Economics is coded EBE A101. The second objective under that standard is coded EBE A102 and so on to the 10th objective of the second standard of the fourth performance indicator of Entrepreneurship and Business Economics – EBE D210.

Curriculum guide sheets are provided for each standard statement. These guide sheets are intended to provide framework information for development of a complete curriculum guide which should also include instructional strategies and sample assessments. In addition to the topic, performance indicator, standard, and objective, the guide sheets list cross walks to SCANS and Show-Me standards. Sample activities which can be developed into instructional activities or assessments are included on each guide sheet. At the end of each section is a list of resources which support instruction in that section.

The sections are presented alphabetically. There is no implication of sequence of instruction for the sections. Teachers developing curriculum guides should select sections that fit the needs of their students and community. The sequence of sections within the curriculum will depend on a variety of factors and is best determined by the teacher in consultation with district curriculum planners.

Academic Foundations for Careers links the workplace application of academic skills to the Show-Me Standards communication arts and math areas. Students will apply those academic skills in authentic workplace situations. Development of higher level skills will be supported by classroom instruction, employer evaluation, and teacher assessment of student mastery.

Applied Technology is a combination of SCANS skills and the Technology Foundation Standards for Students from the International Society for Technology in Education, and other sources. This section acquaints students with the broad application of technology in the workplace. The standards and indicators are not intended to develop specific software skills, but rather to build knowledge of how technology, including computers and software, can be applied at the workplace.

==== Curriculum Standards and Indicators

Career Development and Employment is a comprehensive section dealing with career awareness, career decision making, and the employment process. A career portfolio topic covers the basics of finding and applying for a job. Teachers may decide to reduce the career development areas of this section when students have had ample career guidance and instead focus on the job seeking and application skills of the portfolio section.

Entrepreneurship and Business Economics includes the knowledge and skills associated with understanding economics, business concepts, and the requirements and processes of entrepreneurship. Students will better understand business and their role as an employee in contributing to the success of that business and explore their potential for an entrepreneurial career.

Ethics and Social Responsibility focuses on ethical behavior in the workplace. Legal and regulatory issues related to employment and the responsibility business has to the community and society as a whole is also part of this section.

Leadership and Teamwork identifies important processes and skills for developing leadership skills. These skills are very important for students as they pursue their careers and adult roles. Mastery of these skills will better prepare students to meet the challenges of the workplace and society.

Safety and Health includes knowledge and skills required to be safe at the workplace. This section also includes the contribution healthy living plays in career success.

Technical Knowledge and Skills is that area of the curriculum which provides for development of career specific knowledge and skills. Included in this section are the various processes required for successful completion of a cooperative education experience.

==== Curriculum Standards and Indicators

ACADEMIC FOUNDATIONS FOR CAREERS

Occupational Communications

- A. Understand the importance of effective communication skills in the workplace.**
1. Use written communication skills in the workplace
 2. Use oral communication skills in the workplace

Occupational Mathematical Computations

- B. Understand the importance of effective mathematical computation skills in the workplace.**
1. Perform appropriate mathematical calculations in work-related situations.

APPLIED TECHNOLOGY

- A. Understand the uses and limitations of technological tools for achieving personal and workplace needs.**
1. Select appropriate technology to produce desired results
 2. Apply technology to accomplish workplace objectives
 3. Prevent or solve technology problems.

CAREER DEVELOPMENT AND EMPLOYMENT

- A. Understand the process for researching and selecting career opportunities**
1. Analyze the relationship between educational achievement and career planning.
 2. Analyze the need for positive attitudes toward work and learning.
 3. Locate, evaluate, and interpret career information.
 4. Determine how societal needs and functions influence the nature and structure of work.

==== Curriculum Standards and Indicators

B. Understand the process for career decision-making.

1. Apply problem solving skills to make decisions.
2. Examine the interrelationship of life roles as related to career planning.
3. Apply skills in personal career planning.

C. Understand the components required for a career portfolio.

1. Apply skills to seek, obtain, maintain, and change jobs.

ENTREPRENEURSHIP AND BUSINESS ECONOMICS

A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership

1. Discuss basic concepts of entrepreneurship/small business ownership
2. Examine cost-profit relationships
3. Discuss economic indicators/trends
4. Recognize international business concepts

B. Understand fundamental business concepts that affect business decision making

1. Discuss fundamental business concepts
2. Discuss core business activities

C. Understand concepts and processes associated with successful entrepreneurial performance

1. Discuss the Discovery stage of entrepreneurship
2. Discuss the Concept Development stage of entrepreneurship
3. Discuss the Resourcing stage of entrepreneurship
4. Discuss the Actualization stage of entrepreneurship
5. Discuss the Harvesting stage of entrepreneurship

D. Understand the personal traits/behaviors associated with successful entrepreneurial performance

1. Conduct Personal Assessment

Curriculum Standards and Indicators

2. Manage Personal Traits

ETHICS AND SOCIAL RESPONSIBILITY

Ethical Behavior

A. Understand and apply ethical behavior in the workplace.

1. Explain the importance of workplace ethics.
2. Apply ethical factors when making decisions.

Laws and Regulations

B. Understand laws and regulations that apply to employment.

1. Explain legal issues affecting business.
2. Explain local, state and federal laws and regulations affecting the workplace.

Social Responsibility

C. Understand the responsibility business has to society.

1. Describe social demands that affect business.
2. Describe environmental concerns that affect business.

LEADERSHIP AND TEAMWORK

Developing Knowledge of Self and Others

A. Understand that knowledge of self and others is the foundation of leadership.

1. Evaluate personal self-image.
2. Evaluate personal behaviors.
3. Use knowledge of others to improve one's leadership skills.

Defining Leadership

B. Understand how characteristics, relationships and context interact in leadership roles.

Curriculum Standards and Indicators

1. Analyze the characteristics of leaders.
2. Analyze the complex relationship between the leader and the follower.
3. Evaluate the role of context in the process of leadership.

Developing Leadership Skills and Practices

C. Understand the functions of effective leadership.

1. Communicate effectively in pairs, small groups, teams, and large groups.
2. Analyze and refine decision-making skills.
3. Evaluate the relationship between personal vision and the group vision.

Practicing Leadership

D. Understand how leadership can be demonstrated at the workplace.

1. Analyze leadership at the workplace
2. Practice leadership through CTSO activities.

Adapted from "Linking Leadership and Instruction: A Leadership Development Curriculum for Virginia Public Schools." Virginia Board of Education, August, 2003.

SAFETY AND HEALTH

Safety

A. Understand the importance of safety in the workplace.

1. Recognize the role of hazards in the workplace.
2. Implement a plan for workplace safety.
3. Examine the role of laws and regulations for workplace safety.
4. Apply safety procedures in the workplace.

Health

B. Understand the importance of healthy living for career success.

1. Define factors leading to a healthy and active life

==== Curriculum Standards and Indicators

2. Utilize health maintenance strategies.

TECHNICAL KNOWLEDGE AND SKILLS

Career Competency

A. Understand the skills required for success in a specific career.

1. Demonstrate job skills as listed on the training plan or Instructional Management Plan.
2. Demonstrate an understanding of the company's mission and goals.
3. Demonstrate behavior which meets the ethical, legal, and cultural expectations of a specific career.
4. Maintain records related to employment

Curriculum Standards and Indicators

PERFORMANCE INDICATORS AND STANDARDS OBJECTIVES AND CURRICULUM GUIDE SHEETS

Academic Foundations for Careers

Occupational Communications

A. Understand the importance of effective communication skills in the workplace.

1. Use written communication skills in the workplace
 - A101 Describe the advantages a written message may have over a spoken one
 - A102 Comprehend written communications in the workplace
 - A103 Compare and contrast different forms of written business communication as utilized in the workplace
 - A104 Create print and non-print communications for various audiences and for a variety of purposes
 - A105 Demonstrate proficiency in writing standard English.
2. Use oral communication skills in the workplace
 - A201 Demonstrate listening strategies that improve understanding and performance on the job
 - A202 Comprehend and give oral instructions in a business like manner as related to the workplace
 - A203 Demonstrate proper business etiquette in placing/receiving telephone calls and recording telephone messages
 - A204 Participate in informal presentations and discussions.
 - A205 Demonstrate proficiency in speaking standard English.

Occupational Mathematical Computations

B. Understand the importance of effective mathematical computation skills in the workplace.

1. Perform appropriate mathematical calculations in work-related situations.
 - B101 Compute addition, subtraction, multiplication, and division problems as related to the workplace
 - B102 Compute addition, subtraction, multiplication, and division of decimal number problems as related to the workplace

==== Curriculum Standards and Indicators

- B103 Interpret quantitative information from tables, charts, and graphs as related to the workplace
- B104 Compute ratios and percentages as related to the workplace
- B105 Calculate distance, weight, area, volume, and/or time problems as related to the workplace
- B106 Determine costs, time, and/or resources needed to complete a task within the workplace.

Curriculum Standards and Indicators

Academic Foundations for Careers – AFC A1

Topic	Occupational Communications
Performance Indicator	A. Understand the importance of effective communication skills in the workplace.
Standard	1. Use written communication skills in the workplace
SCANS	Information 7; Basic Skills 1, 2
Show-Me Standards	1.5; 2.1; 2.2; 2.5; 2.7; CA1, 3, 4, 5
Objectives	<p>A101 Describe the advantages a written message may have over a spoken one</p> <p>A102 Comprehend written communications in the workplace</p> <p>A103 Compare and contrast different forms of written business communication as utilized in the workplace</p> <p>A104 Create print and non-print communications for various audiences and for a variety of purposes</p> <p>A105 Demonstrate proficiency in writing standard English.</p>
Sample Activities	<p>With the permission of your supervisor or manager, bring to class a memo or other written communication generated at your workplace. Identify for the class the purpose of the written communication, why it was necessary to put the information in writing as opposed to oral communication, and what the communication requests.</p> <p>Write a set of operational policies for an aspect of your job. Submit the policies to your supervisor for review.</p> <p>Prepare a ten minute presentation for middle school students on your job. Include skills and education preparation required, benefits to you and the community, how the job can contribute to your career plans, and the benefits of cooperative education in preparing for a career.</p> <p>Identify four forms of written communication at your workplace. Discuss the purpose of the communication, why the particular form of written communication is appropriate, and how the communication could be improved.</p>

Curriculum Standards and Indicators

Academic Foundations for Careers – AFC A2

Topic	Occupational Communications
Performance Indicator	A. Understand the importance of effective communication skills in the workplace.
Standard	2. Use oral communication skills in the workplace
SCANS	Information 7; Basic Skills 5, 6
Show-Me Standards	1.7; 2.1; 2.3; 2.7; CA1, 6
Objectives	<p>A201 Demonstrate listening strategies that improve understanding and performance on the job</p> <p>A202 Comprehend and give oral instructions in a business like manner as related to the workplace</p> <p>A203 Demonstrate proper business etiquette in placing/receiving telephone calls and recording telephone messages</p> <p>A204 Participate in informal presentations and discussions.</p> <p>A205 Demonstrate proficiency in speaking standard English.</p>
Sample Activities	<p>Describe a complex geometric figure in enough detail so that a classmate can correctly reproduce the figure without looking at it.</p> <p>Train your teacher on your job duties during a coordination visit to your workplace.</p> <p>Locate any policies at your workplace regarding telephone etiquette/procedure and handling telephone messages. Compare these policies with those located by classmates.</p> <p>Practice handling difficult customers via telephone simulation exercises.</p> <p>Prepare and deliver a five-minute oral description of a career of your choice. Submit your outline to your teacher before presenting to the class.</p>

Curriculum Standards and Indicators

Academic Foundations for Careers – AFC B1

Topic	Occupational Mathematical Computations
Performance Indicator	B. Understand the importance of effective mathematical computation skills in the workplace.
Standard	1. Perform appropriate mathematical calculations in work-related situations.
SCANS	Resources 2; Basic Skills 3, 4; Thinking Skills 12
Show-Me Standards	1.10; 3.8; MA1, 3, 6
Objectives	<p>B101 Compute addition, subtraction, multiplication, and division problems as related to the workplace</p> <p>B102 Compute addition, subtraction, multiplication, and division of decimal number problems as related to the workplace</p> <p>B103 Interpret quantitative information from tables, charts, and graphs as related to the workplace</p> <p>B104 Compute ratios and percentages as related to the workplace</p> <p>B105 Calculate distance, weight, area, volume, and/or time problems as related to the workplace</p> <p>B106 Determine costs, time, and/or resources needed to complete a task within the workplace.</p>
Sample Activities	<p>Identify examples where basic arithmetic is used at your place of employment.</p> <p>Ask your manager or supervisor for an example of quantitative information presented in graphic form. Share with the class the interpretation of that information, how it is accumulated, and how the information is used in the business.</p> <p>Prepare a series of math problems related to your place of employment which include ratios, percentages, cost estimation, and distance or time problems. Have the class solve the problems and check their answers for accuracy.</p>

Curriculum Standards and Indicators

ACADEMIC FOUNDATIONS FOR CAREERS

RESOURCES

21st Century Literacies (Reading, see Sensemaking)

<http://www.kn.sbc.com/wired/21stcent/sitemap.html#sensemaking>

Above links from “Virginia’s Workplace Readiness Skills”

Idea Book: Integrating Work Skills and Basic Skills

http://cls.coe.utk.edu/pdf/Idea_Book_2000.pdf

Academic Standards Resources – Indiana Department of Education.

<http://www.indianastandardsresources.org/completeResource.asp?Subject=eng&Grade=12&Standard=>

A Collection of Authentic Workplace Materials (Canadian resource for samples of workplace reading and writing, accessible by occupation or by type of material)

<http://www15.hrdc-drhc.gc.ca/awm/default.asp>

A Collection of Authentic Workplace Materials (Canadian resource for samples of workplace reading and writing, accessible by occupation or by type of material)

<http://www15.hrdc-drhc.gc.ca/awm/default.asp>

A Definition of Purpose

<http://www.mines.edu/Academic/lais/wc/tutorials/anatext/writtext/wcontext/pop1b.htm>

Audience, Purpose and Language Use in Electronic Messages (Lesson Plan)

http://www.readwritethink.org/lessons/lesson_view.asp?id=159

Bang for Your Buck: Examining the Hidden Costs Behind Bargains and Quality Products

<http://www.nytimes.com/learning/teachers/lessons/20031106thursday.html>

Basic Algebra and Computer: Spreadsheets, Charts, and Simple Line Graphs (Lesson Plan)

http://www.powertolearn.com/teachers/lesson_activities/math/CBV.72.S.M.R7.F.pdf

Basic Math Calculator

http://www.convertit.com/Go/ConvertIt/Calculators/Math/Basic_Math_Calc.ASP

Business Letter Writing: Putting Your Reader First

<http://www.business-letter-writing.com/writing-a-business-letter-examples/putting-your-reader-first.html>

Business Writing (Assessment items with scenarios)

http://www.act.org/workkeys/assess/bus_writ/index.html

Conversion Diversion

http://faculty.cmsu.edu/iwe/Lesson_Plans/IET/ie0002.html

Carrying Out Math Calculations with Accuracy (rubric)

http://www.tensigma.org/pdf/line4bak/2007_rubric.pdf

Curriculum Standards and Indicators

Effective Email (Writing)

<http://www.mindtools.com/CommSkill/EmailCommunication.htm>

Effective Writing for the Workplace

<http://www.writerswrite.com/journal/cew1.htm>

Email Etiquette Workshop (PowerPoint)

<http://owl.english.purdue.edu/workshops/pp/emailett.ppt>

English and Your Career

<http://www.bls.gov/opub/ooq/1999/summer/art03.pdf>

Engineers Edge: Formulas used in design, engineering, and manufacturing (see bottom half of page)

<http://www.engineersedge.com/>

Evaluating Web Information

<http://www.lib.vt.edu/help/instruct/evaluate/>

Exactly How Is Math Used in Technology?

<http://www.math.bcit.ca/examples/index.shtml>

Examining How Mathematics Is Used in the Workplace (Automobile Production, Nursing, Banking, Biology, Science)

http://www.maa.org/t_and_l/sampler/rs_6.html

Farese, L.S., Kimbrell, G., & Woloszyk, C.A. (2002). *Marketing essentials* (3rd ed.) Woodland Hills, CA: Glencoe/McGraw-Hill.

Field Research: Conducting an Interview (PowerPoint)

<http://owl.english.purdue.edu/workshops/pp/interviewing.ppt>

Finding Your Focus: The Writing Process (PowerPoint)

<http://owl.english.purdue.edu/workshops/pp/writproc.PPT>

Formulas for Consumers and Statistics

<http://www.brookdalecc.edu/fac/tlt/math/136/formulas.php>

Getting the Right Tone to Your Business Letter

<http://www.business-letter-writing.com/writing-a-business-letter-examples/getting-the-right-tone-to-your-business-letter.html>

Grammar, Punctuation, and Spelling (Instructional handouts)

<http://owl.english.purdue.edu/handouts/grammar/index.html>

High School Operations Research: Mathematics for Decision Making in Industry and Government

http://www.hsor.org/case_studies.cfm (Case Studies)

<http://www.hsor.org/modules.cfm> (Modules)

How Much Roofing Do I Need?

http://www.fieldshomeimprovement.com/ht_shingles.html

Curriculum Standards and Indicators

How to Write a Company Handbook
<http://www.profitguide.com/howto/article.jsp?content=843>

How to Write and Revise a Rough Draft
<http://www.utexas.edu/student/utlc/handouts/1234.html>

Improve Your Communication Skills (Writing)
<http://www.mindtools.com/CommSkill/WritingSkills.htm>

Information Skills (Emphasis on Reading)
http://www.mindtools.com/pages/main/newMN_ISS.htm

Internet Research
<http://www.library.vcu.edu/help/internet.html>

Interest Calculation and Spreadsheets (Lesson Plan)
http://www.powertolearn.com/teachers/lesson_activities/math/CBV.79.E.M.R6.D1.pdf

Interpreting Workplace Memos and Notices (Lesson Plan)
http://slincs.coe.utk.edu/gtelab/learning_activities/11broc.html

Introduction: Audience
<http://writing.colostate.edu/references/processes/audmod/>

Introduction: Development
<http://writing.colostate.edu/references/processes/develop/>

Introduction: Focus
<http://writing.colostate.edu/references/processes/focus/>

Introduction: Organization
<http://writing.colostate.edu/references/processes/organize/>

Introduction: Purpose
<http://writing.colostate.edu/references/processes/purpose/index.cfm>

Math and Your Career
<http://www.bls.gov/opub/ooq/1999/summer/art03.pdf>

Math To Build On (Mathematics for the Construction Industry)
<http://mathforum.org/%7esarah/hamilton/index.html>

Math, Timelines, and Data Management Case Studies
<http://www.apl.com/boomerangbox/casearch.htm#math>

Memo Writing
http://owl.english.purdue.edu/handouts/print/pw/p_memo.html

Online Plagiarism Tutorial
<http://www.lib.usm.edu/research/plag/plagiarismtutorial.php>

Curriculum Standards and Indicators

Online Technical Writing: Examples, Cases, & Models
<http://www.io.com/~hcexres/tcm1603/achtml/models.html>

Online Technical Writing: Instructions
<http://www.io.com/~hcexres/tcm1603/achtml/instrux.html>

Online Technical Writing: Proposals
<http://www.io.com/%7ehcexres/tcm1603/achtml/props.html>

Outline
<http://owl.english.purdue.edu/workshops/hypertext/ResearchW/outline.html>

Planning a Class Field Trip (Mathematics/Computers/Internet Lesson Plan)
<http://www.lessonplanspage.com/SSMathCIPlanningClassFieldTrip312.htm>

Powerful & Practical: Writing the Impact Report (PowerPoint)
<http://owl.english.purdue.edu/workshops/pp/ImpactReport.ppt>

Practice Exercises Index (Grammar, punctuation, spelling quizzes)
<http://owl.english.purdue.edu/handouts/interact/index.html>

Press Release Writing Tips
<http://www.press-release-writing.com/> (Use left-hand menu to access topics)

Pricing
<http://ohioline.osu.edu/cd-fact/1326.html>

Progress Report Memo: Analytical Report (Assignment instructions)
http://www.enl.umassd.edu/InteractiveCourse/assistant/AssignArch_BusCommTechWrite.htm#progress

Proofread the Final Draft
<http://www.factmonster.com/homework/t9xfinal.html>

Proofreading
<http://owl.english.purdue.edu/workshops/hypertext/ResearchW/proofread.html>

Proofreading for Common Surface Errors: Spelling, Punctuation, and Grammar
http://www.indiana.edu/~wts/pamphlets/proofing_grammar.shtml

Purposes in Writing
<http://web.umar.edu/~gdoty/classes/concepts-practices/purposes.html>

RAFT Organizer for Writing a Letter
http://its.quilford.k12.nc.us/act/grade6/gr6_files/Europe_DTP/Raft_Letter.doc

Reading and Interpreting Production Graphs
http://slincs.coe.utk.edu/gtelab/learning_activities/10broc.html

Reading for Information (Assessment items with scenarios)
<http://www.act.org/workkeys/assess/reading/>

Curriculum Standards and Indicators

Revise the First Draft

<http://www.factmonster.com/homework/t9revise.html>

Revision

<http://owl.english.purdue.edu/workshops/hypertext/ResearchW/revise.html>

Seven Steps to Library Research

http://www.lib.vt.edu/help/instruct/seven/library_research.html

Spell Check: Appraising the Value of Good Spelling

<http://www.nytimes.com/learning/teachers/lessons/20040129thursday.html>

Statistics: Determining Mean, Range, Median, Mode, and Probability (Lesson Plan)

http://slincs.coe.utk.edu/gtelab/learning_activities/09broc.html

Stock Charting: Percentages and Profits (Lesson Plan)

http://www.powertolearn.com/teachers/lesson_activities/math/CBV.73.S.M.R7.D1.pdf

Strategies for Developing Your Ideas

<http://writing.colostate.edu/references/processes/develop/list5.cfm>

Survey of Favorites (Lesson Plan)

http://www.powertolearn.com/teachers/lesson_activities/math/CBV.75.E.M.R1.F.pdf

Technical Reports

<http://www.io.com/~hcexres/tcm1603/achtml/techreps.html>

Technical Writing: Model Documents

http://longman.awl.com/englishpages/tech_model.htm

Tech Train: Excel Formulas and Functions

<http://www.techtrainteam.com/services/olt/office2000/xls-a3.html>

Tools for Reading the World

<http://www.noodletools.com/debbie/literacies/21c.html>

The Basic Business Letter: Parts of the Business Letter

http://owl.english.purdue.edu/handouts/print/pw/p_basicbusletter.html

Traveling in Time Zones (Lesson Plan)

<http://www.lessonplanspage.com/MathTravelingInTimeZonesIdea910.htm>

The Seven Cs of Business Letter Writing

<http://www.business-letter-writing.com/writing-a-business-letter-examples/7Cs-of-business-letter-writing.html>

Understanding Language Registers as a Means to More Effective Communication (Lesson Plan)

http://slincs.coe.utk.edu/gtelab/learning_activities/30carc.html

Using Math to Solve Problems & Communicate

<http://slincs.coe.utk.edu/gtelab/find.html#usemath>

Curriculum Standards and Indicators

Using Math to Solve Problems and Communicate (Lesson Plans)
<http://slincs.coe.utk.edu/gtelab/find.html#usemath>

Where Do I Begin?
<http://info-skills.lib.vt.edu/>

Wisconsin Academic Standards Resources – IDEA – <http://www.ideas.wisconsin.edu/>

Workforce Readiness Credential Library
Center for Literacy Studies, University of Tennessee/Knoxville, ©2000
http://eff.cls.utk.edu/work_readiness/eff_work_library_info.htm

Write a First Draft
<http://www.factmonster.com/homework/t6roughdraft.html>

Writing a Job Pamphlet
http://slincs.coe.utk.edu/gtelab/learning_activities/07all.html

Writing an Introduction
<http://owl.english.purdue.edu/workshops/hypertext/ResearchW/writeintro.html>

Writing Business Messages (PowerPoint)
<http://owl.english.purdue.edu/workshops/pp/audorg.ppt>

Writing for an Audience
<http://home.cogeco.ca/~rayser3/letter.txt>

Writing Guides for Different Types of Documents
http://writing.colostate.edu/references/index.cfm?guides_active=documents

Writing the Fire Investigation Report
http://www.interfire.com/res_file/reports.asp

MarkEd/Career Paths Resource Center
P.O. Box 12279
Columbus, OH 43212-0279
800-448-0398
Fax: 614-486-1819
Email: service@mark-ed.com
Web site: www.mark-ed.com

Curriculum Standards and Indicators

APPLIED TECHNOLOGY

Performance Indicator, Standards and Objectives

A. Understand the uses and limitations of technological tools for achieving personal and workplace needs.

1. Select appropriate technology to produce desired results
 - A101 Identify common tools, equipment, machines, and materials required for one's job
 - A102 Identify common business machines (for example, fax, copy machine, computer)
 - A103 Identify capabilities and limitations of technology resources
 - A104 Discuss problems related to the increased use of technology

2. Apply technology to accomplish workplace objectives
 - A201 Demonstrate appropriate use of telecommunications systems
 - A202 Utilize common software, including word processing, database management, spreadsheet, and presentation software to accomplish workplace objectives
 - A203 Use technology to gather information, make decisions, and present results of investigations

3. Prevent or solve technology problems
 - A301 Demonstrate appropriate care of computers, software and other technologies
 - A302 Practice responsible use of technology
 - A303 Identify potential maintenance or use problems with computers or other technologies

Curriculum Standards and Indicators

Applied Technology – AT A1

Topic	Select Technology
Performance Indicator	A. Understand the uses and limitations of technological tools for achieving personal and workplace needs.
Standard	1. Select appropriate technology to produce desired results
SCANS	Information 8; Systems 18
Show-Me Standards	1.4; 1.10; 3.1; SC 8
Objectives	<p>A101 Identify common tools, equipment, machines, and materials required for one's job</p> <p>A102 Identify common business machines (for example, fax, copy machine, computer) Identify capabilities and limitations of technology resources</p> <p>A103 Discuss problems related to the increased use of</p> <p>A104 technology</p>
Sample Activities	<p>Compare product information for several brands of a piece of technology equipment of your choice. Based on the information, choose which product to purchase. Explain your choice to the class, including your need for the product, benefits and disadvantages of each brand, and rationale for purchasing that particular product.</p> <p>Interview the manager or supervisor at your place of employment to determine what problems they encountered with adding technology at work. Describe the problems to the class, and what solutions were used to correct the problems.</p> <p>Make a list of business machines used at your workplace. Describe the purpose of the machine, and how it is used at the workplace. If appropriate, suggest upgraded technology to replace the current machine. Submit your list in writing to your teacher.</p> <p>Locate two articles addressing the problems with increased use of technology in the workplace. In a brief written report describe: 1) the problems stated in the article; 2) possible solutions to the problems; and 3) how the problems relate to your workplace.</p>

Curriculum Standards and Indicators

Applied Technology – AT A2

Topic	Apply Technology
Performance Indicator	A. Understand the uses and limitations of technological tools for achieving personal and workplace needs.
Standard	2. Apply technology to accomplish workplace objectives
SCANS	Information 8; Systems 19; Basic Skills 8
Show-Me Standards	1.4; 1.8; 2.5; 2.7; CA 1
Objectives	<p>A201 Demonstrate appropriate use of telecommunications systems</p> <p>A202 Utilize common software, including word processing, database management, spreadsheet, and presentation software to accomplish workplace objectives</p> <p>A203 Use technology to gather information, make decisions, and present results of investigations</p>
Sample Activities	<p>Ask your supervisor or manager about workplace policies for use of telecommunications equipment. Present your findings to the class. Discuss the common and different policies and the reasons for them.</p> <p>Use appropriate techniques for telephone, fax and email communication at your workplace.</p> <p>Use word processing software to design a form to collect customer satisfaction information for your workplace. Ask your supervisor or manager to review the form.</p> <p>Design a simple inventory system using a database management program for a personal item, such as books, CD's, t-shirts, etc. Include fields which will help you manage that inventory. Share your system with the class.</p> <p>Identify three ways a database is used at your place of employment. Describe these uses and benefits to the business in an oral or written presentation.</p> <p>Select the appropriate software and prepare a job description for publication.</p> <p>Prepare a visual presentation which highlights the students and employers in your class.</p> <p>Use a spreadsheet to manage the budget for a fund raising event. Project possible results using future scenarios related to the event. Prepare financial reports from the spreadsheet.</p> <p>Prepare a 30 second TV ad and accompanying newspaper ad for your place of business. Ask your supervisor to review the ads. Show the ads to the class and discuss opportunities for improvement.</p> <p>Set up a spreadsheet to record your hours of employment, total hours worked, wages earned, taxes withheld, and other data related to your wages earned at the workplace.</p>

Curriculum Standards and Indicators

Applied Technology – AT A3

Topic	Solve Technology Problems
Performance Indicator	A. Understand the uses and limitations of technological tools for achieving personal and workplace needs.
Standard	3. Prevent or solve technology problems.
SCANS	Information 8; Systems 20; Personal Qualities 17
Show-Me Standards	1.10; 3.1; 3.8
Objectives	<p>A301 Demonstrate appropriate care of computers, software and other technologies.</p> <p>A302 Practice responsible use of technology</p> <p>A303 Identify potential maintenance or use problems with computers or other technologies.</p>
Sample Activities	<p>Locate and read the product information brochure for a piece of technology at your workplace. Is the appropriate care being taken of the equipment? Do you have suggestions for improving the care of the equipment? Share your findings with your supervisor and class.</p> <p>Prepare written guidelines for using a piece of technology at your workplace or classroom. Share these guidelines with the class.</p> <p>List three problems that might arise from the improper care of a computer. In a class discussion, share your lists. Discuss the costs associated with those problems and how the problems could have been avoided.</p> <p>Interview your supervisor to find out how electronic files, programs, and operating systems are safeguarded at your workplace. Present your findings to the class.</p>

Curriculum Standards and Indicators

APPLIED TECHNOLOGY RESOURCES

ActDen:

<http://www.actden.com>

American Library Association

<http://www.ala.org>

America's Learning Exchange

<http://www.alx.org>

Applying Advanced Word Processing Features and Techniques (Includes Lessons)

<http://teachers.henrico.k12.va.us/CTE/BIT0304/AdvCIS/CISadvWP.html>

Applying Spreadsheet Information (Lesson Plan)

<http://www.uen.org/Lessonplan/preview.cgi?LPid=9104>

Basic Spreadsheet Concepts

http://www.geekgirls.com/menu_spreadsheets.htm

Business Simulation Project

<http://www.geocities.com/CollegePark/Quad/5687/cbp.html>

Census Data

<http://www.censusscope.org/>

Comparing Prices of Dream Cars (Excel Spreadsheet Project)

http://www.successlink.org/gti/gti_lesson.asp?lid=2833

Computer Ethics

<http://www.ethicsweb.ca/resources/computer/issues.html>

Computer History

<http://www.computerhope.com/history/index.htm>

Computer Security and Privacy Issues (PowerPoint)

<http://teachers.henrico.k12.va.us/CTE/BIT0304/AdvCIS/ComputerSecurityPrivacyIssues.ppt>

Computer Technology – Create a Table (Lesson Plan)

<http://www.uen.org/Lessonplan/preview.cgi?LPid=9266>

Consumer Jungle

<http://www.consumerjungle.org>

Creating an Access Database

http://www.geekgirls.com/databasics_02.htm

CyberEthics: Featured Resources

<http://www.cterresource.org/publications/featured/cyberethics/index.html>

Database Dictionary

http://www.geekgirls.com/database_dictionary.htm#key%20field

Curriculum Standards and Indicators

Design a Mailing to Your Current Customers (using a database)

http://www.tensigma.org/pdf/l_n_e/lne_6_bcs/3066_scen.pdf

Don't Buy It (PBS Kids)

<http://pbskids.org/dontbuyit/>

E-Learning Guru

<http://www.e-learningguru.com/>

Electric Teacher

<http://www.electricteacher.com/>

ERIC/EECE Resource List

<http://ericeece.org/pubs/reslist/compsw.html>

Exploring Query Types

http://www.geekgirls.com/databasics_06.htm

http://www.geekgirls.com/databasics_07.htm

E-Z Instructions

<http://www.ezinstructions.com/>

Find the Word Processing Changes (Lesson Plan)

<http://www.uen.org/Lessonplan/preview.cgi?LPid=4983>

FindTutorials

http://tutorials.findtutorials.com/Digital_Cameras

<http://kodak.com/US/en/nav/takingPics.shtml>

Fortune Magazine Online, Check Stock Prices

<http://www.fortune.com>

Free Excel file downloads

<http://www.j-walk.com/ss/excel/files/general.htm> (Master List of General Downloads)

<http://www.j-walk.com/ss/excel/files/timesht.htm> (Employee Timesheet)

<http://www.j-walk.com/ss/excel/files/apptcal.htm> (Appointment Calendar Maker)

FreeSkills

<http://www.freeskills.com> Freeskills.com provides hundreds of free online IT tutorials.

Games Economists Play

<http://mcnet.marietta.edu/~delemeeg/games/>{no computer needed}

Getting Information out

http://www.geekgirls.com/databasics_05.htm

Graphics Links

<http://www.lttechno.com/links/graphic.html>

Graphs Online: N.C.E.S.

<http://nces.ed.gov/nceskids/>

Home Improvement Toolbox

<http://www.energystar.gov/homeimprovement>

Curriculum Standards and Indicators

How Stuff Works: Computer Stuff
<http://computer.howstuffworks.com>

How Stuff Works: Computer Stuff
<http://computer.howstuffworks.com>

Inflation Calculator
<http://www.westegg.com/inflation/>

Information Technology Terminology
www.slais.ubc.ca/courses/libr500/00-01-wt2/computer.htm

International Society for Technology in Education (ISTE)
www.iste.org

Internet Resources for Teachers
<http://ejw.i8.com/> Very comprehensive and easily displayed

Introduction to Spreadsheets
<http://www.cs.indiana.edu/classes/a106-fulc/spreadsheet.intro.html>

ITAA Workforce and Education
<http://www.ita.org/workforce>

ITS Connection
<http://www.itsconnection.com> Created by Texas Information Technology Educators

Jones Telecommunications and Multimedia Encyclopedia
<http://www.digitalcentury.com/encyclo/update/>

Keyboarding Speed & Accuracy Program
<http://www.typingmaster.com>

KRBC 9 News: Does It Work?
http://www.krbctv.com/does_it_work.htm

Lemonade Stand Business (Spreadsheet, Internet, and PowerPoint Project)
<http://www.teachers.net/lessons/posts/1542.html>

Lesson on the Basics of Using a Computer
http://www.tensigma.org/pdf/line_6_bcs/3022_pa.pdf

"Living Within Your Means" Webquest
<http://www.angelfire.com/stars2/lifeskill/>

Maintaining and Troubleshooting Systems
<http://teachers.henrico.k12.va.us/CTE/BIT0304/AdvCIS/CISadvMT.html> (Includes Lessons)

Manipulate a Spreadsheet to Determine Important Information
http://www.tensigma.org/pdf/line_6_bcs/3082_assign.pdf

MarketingTeacher.com
<http://www.marketingteacher.com/>

Curriculum Standards and Indicators

Mary's MS Word Page

<http://www.oops.bizland.com/maryswordideas.htm>

Medicine and Madison Avenue

<http://scriptorium.lib.duke.edu/mma/>

Microsoft Education Instructional Resources

<http://www.microsoft.com/education/Default.aspx>

Microsoft in Education

<http://www.microsoft.com/education/schools/default.>

Microsoft Lesson Plans, Tutorials, Case Studies

<http://www.microsoft.com/Education/LessonPlans.aspx>

MS Office Links

<http://www.oops.bizland.com/msoffcelinks.htm>

NetLingo

<http://www.internet-trainer.com/glossary.htm>

On-line Computer Applications tutorials

<http://www.internet4classrooms.com/on-line.htm>

Planning and Designing a Database

http://www.geekgirls.com/databasics_03.htm

http://www.geekgirls.com/databases_from_scratch_2.htm

Possess Basic Word Processing Skills (rubric)

<http://www.tensigma.org/pdf/line6bcs3025rubric.pdf>

PowerPoint Tips and Tricks

<http://www.greece.k12.ny.us/taylor/tips/ppt/>

Preparing the Resume

http://trackstar.hprtec.org/main/display.php3?track_id=47550

Shop and Compare Hardware (How to Buy – Brands and Pricing)

<http://eshop.msn.com/category.aspx?catId=255>

Spreadsheets (Lesson Plan)

<http://www.uen.org/Lessonplan/preview.cgi?LPid=9114>

Spreadsheets in the Classroom

<http://scrtec.org/track/tracks/f03050.html>

Stock Market Basics:

<http://www.tulsaworld.com/StockMktBasics/StockBasicspage9.asp>

Streamlining Data Entry

http://www.geekgirls.com/databasics_04.htm

Table it or Spread it? (Word/Excel Lesson Plan)

http://www.successlink.org/gti/gti_lesson.asp?lid=3325

Curriculum Standards and Indicators

Tech Depot: Hardware and Software

<http://techdepot.officedepot.com/search.asp?Operator=ALL&CONTEXT=SITE&Keyword=computer+software&x=18&y=4?AffID=11334>

Technology for Teachers (lots of Web links and lessons)

http://www.bhsu.edu/education/edfaculty/Itturner/Technology_for_Teachers.htm#computer_skills

Technology Terminology Study Guide

www.caroline.k12.va.us/pages/term1.html

Technology Terminology

<http://fc.fms.k12.nm.us/~rmilliken/terms.pdf>

"The ABC's of Excel"

<http://www.forsyth.k12.ga.us/kadkins/abc.htm>

The Computer Museum

<http://www.tcm.org>

Troubleshooting Computers

<http://www.barnettcomputerservices.com/troubleshooting/troubleshooting.htm>

U.S. Department of Commerce

<http://www.ta.doc.gov/Go4IT/>

Using and Evaluating Web Sites

<http://www.kn.sbc.com/wired/21stcent/sitemap.html#questioning>

Using Spreadsheet Software as a Database and for Designing Forms (Lesson Plan)

http://www.successlink.org/gti/gti_lesson.asp?lid=3829

Wall Street Journal Career Section

<http://careers.wsj.com>

WebQuest for Search Activities

<http://scrtec.org/track/tracks/f03468.html>

Windows XP/2000: Getting Started

<http://help.unc.edu/?id=167>

Word Processing Basics: Proofreading (Lesson Plan)

<http://www.uen.org/Lessonplan/preview.cgi?LPid=7649>

Working Safely with Computers

<http://www.rowett.ac.uk/compcode/safety.html>

Curriculum Standards and Indicators

CAREER DEVELOPMENT AND EMPLOYMENT

Career Opportunities

A. Understand the process for researching and selecting career opportunities.

1. Analyze the relationship between educational achievement and career planning.
 - A101 Compare the relationship of academic and vocational skills to personal interests.
 - A102 Link career goals to skills developed in academic and vocational programs.
 - A103 Identify the relationship of education to the selection of college majors, further training, and/or entry into the job market.
 - A104 Identify transferable skills that might apply to a variety of occupations and changing occupational requirements

2. Analyze the need for positive attitudes toward work and learning.
 - A201 Present positive contributions workers make to society.
 - A202 Describe the social significance of various occupations.
 - A203 Develop a positive attitude toward work.
 - A204 Suggest learning habits and skills that can be used in various educational situations
 - A205 Identify positive work attitudes and behaviors

3. Locate, evaluate, and interpret career information.
 - A301 Compare the educational requirements of various occupations.
 - A302 Reference a range of career resources (e.g. handbooks, career materials, labor market information and computerized career information delivery systems).
 - A303 Evaluate classification systems that categorize occupations and industries
 - A304 Illustrate the concept of career ladders and career webs.
 - A305 Compare the advantages and disadvantages of self-employment as a career option.
 - A306 Assess individuals in selected occupations as possible information resources, role models, or mentors
 - A307 Examine how employment trends relate to education and training.

Curriculum Standards and Indicators

- A308 Consider the impact of factors such as population, climate, and geographic location on occupational opportunities
- 4. Determine how societal needs and functions influence the nature and structure of work.
 - A401 Examine the effect of work on lifestyles.
 - A402 Describe how society's needs and functions affect the supply of goods and services.
 - A403 Contrast occupational and industrial trends as related to training and employment
 - A404 Evaluate how the global economy affects individuals

Career Decision Making

B. Understand the process for career decision-making.

- 1. Apply problem solving skills to make decisions.
 - B10 Assess personal responsibility for making tentative educational and occupational choices
 - B102 Analyze alternatives in given decision-making situations
 - B103 Determine personal strengths and weaknesses in relationship to postsecondary education/training requirements
 - B104 Indicate appropriate choices during high school that will lead to marketable skills for entry-level employment or advanced training
 - B105 Distinguish required steps toward a personal transition from high school to entry into postsecondary education/training programs or work.
 - B106 Determine steps to apply for and secure financial assistance for postsecondary education and training
- 2. Examine the interrelationship of life roles as related to career planning.
 - B201 Document knowledge of life stages
 - B202 Assess factors that determine lifestyles (e.g. socioeconomic status, culture, values, occupational choices, work habits)
 - B203 Determine ways in which occupational choices may affect lifestyle
 - B204 Appraise the contributions of work to a balanced and productive life
 - B205 Analyze the interrelationship of work, family, and leisure.
 - B206 Compare different career patterns and their potential effect on family patterns and lifestyle
 - B207 Evaluate the importance of leisure activities.

Curriculum Standards and Indicators

- B208 Examine ways that occupational skills and knowledge can be acquired through leisure
 - B209 Identify evidence of gender stereotyping and bias in educational programs and occupational settings
 - B209 Analyze attitudes, behaviors, and skills that contribute to eliminating gender bias and stereotyping
3. Apply skills in personal career planning.
- B301 Formulate career plans that reflect the importance of lifelong learning
 - B302 Employ knowledge of postsecondary vocational and academic programs
 - B303 Give reasons why changes may require retraining and upgrading of employees' skills
 - B304 Determine school and community resources to explore educational and occupational choices
 - B305 Determine the costs and benefits of self-employment.
 - B306 Compare occupational skills developed through volunteer experiences, part-time employment, and education programs.
 - B307 Compare education and job opportunities

Career Portfolio

C. Understand the components required for a career portfolio.

- 1. Apply skills to seek, obtain, maintain, and change jobs.
 - C101 Use skills to locate, interpret, and use information about job openings and opportunities.
 - C102 Explore academic and/or vocational skills required for a full or part-time job.
 - C103 Research skills and behaviors necessary for a successful job interview
 - C104 Demonstrate skills related to preparing a resume and completing job applications.
 - C105 Locate specific job openings from accessed resources
 - C106 Demonstrate employability skills necessary to obtain and maintain jobs
 - C107 Assess occupational opportunities as related to working conditions, benefits, and opportunities for change
 - C108 Compare placement services available to make the transition from high school to civilian employment, the armed services, or postsecondary education/training

Curriculum Standards and Indicators

Career Development and Employment – CDE A1

Topic	Career Opportunities
Performance Indicator	A. Understand the process for researching and selecting career opportunities
Standard	1. Analyze the relationship between educational achievement and career planning.
SCANS	Information 5; Basic Skills 12
Show-Me Standards	1.10; 3.6; SS6
Objectives	<p>A101 Compare the relationship of academic and vocational skills to personal interests.</p> <p>A102 Link career goals to skills developed in academic and vocational programs.</p> <p>A103 Identify the relationship of education to the selection of college majors, further training, and/or entry into the job market.</p> <p>A104 Identify transferable skills that might apply to a variety of occupations and changing occupational requirements.</p>
Sample Activities	<p>Locate and complete an on-line interest inventory. Based on the results of the inventory select two occupational areas which may be of interest to you. Explain to the class how your interests match the two occupational areas.</p> <p>Identify three academic skills you apply at your workplace. Describe how those same skills could be applied in other occupational areas.</p> <p>Interview a manager or supervisor at your place of employment about what additional training was required after they began working there. Prepare a list of required and voluntary training available at your place of employment.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE A2

Topic	Career Opportunities
Performance Indicator	A. Understand the process for researching and selecting career opportunities
Standard	2. Analyze the need for positive attitudes toward work and learning
SCANS	Information 7; Interpersonal 9; Basic Skills 11, 13
Show-Me Standards	1.8; 2.4; CA6; SS6
Objectives	<p>A201 Present positive contributions workers make to society.</p> <p>A202 Describe the social significance of various occupations.</p> <p>A203 Develop a positive attitude toward work.</p> <p>A204 Suggest learning habits and skills that can be used in various educational situations.</p> <p>A205 Identify positive work attitudes and behaviors.</p>
Sample Activities	<p>Write a case study about a situation which occurred at your place of employment which involved a negative attitude toward work. Describe the results of that attitude, how it affected the workplace environment, and how it was handled by the supervisor. Suggest alternative solutions to handle the situation. Present the case study for class discussion.</p> <p>Prepare a visual presentation which shows the contributions of three very different occupations to society.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE A3

Topic	Career Opportunities
Performance Indicator	A. Understand the process for researching and selecting career opportunities
Standard	3. Locate, evaluate, and interpret career information.
SCANS	Information 7; Basic Skills 1, 11
Show-Me Standards	1.4; 1.10; CA6; SS6
Objectives	<p>A301 Compare the educational requirements of various occupations.</p> <p>A302 Reference a range of career resources (e.g. handbooks, career materials, labor market information and computerized career information delivery systems).</p> <p>A303 Evaluate classification systems that categorize occupations and industries.</p> <p>A304 Illustrate the concept of career ladders and career webs.</p> <p>A305 Compare the advantages and disadvantages of self-employment as a career option.</p> <p>A306 Assess individuals in selected occupations as possible information resources, role models, or mentors.</p> <p>A307 Examine how employment trends relate to education and training.</p> <p>A308 Consider the impact of factors such as population, climate, and geographic location on occupational opportunities.</p>
Sample Activities	<p>Prepare a poster showing the career ladder steps for a career of interest to you.</p> <p>Invite a human resources professional to speak to your class about the importance of career planning and preparation.</p> <p>Research and write a description of the advantages of self-employment over working for someone else. Defend your advantages in a class discussion.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE A4

Topic	Career Decision-Making
Performance Indicator	A. Understand the process for career decision-making.
Standard	4. Apply problem solving skills to make decisions.
SCANS	Information 7; Basic Skills 9, 13, 16
Show-Me Standards	1.2; 1.10; 3.6; 4.8; SS6
Objectives	<p>A401 Examine the effect of work on lifestyles.</p> <p>A402 Describe how society's needs and functions affect the supply of goods and services.</p> <p>A403 Contrast occupational and industrial trends as related to training and employment.</p> <p>A404 Evaluate how the global economy affects individuals.</p>
Sample Activities	<p>Write a brief paragraph describing how your life would be different if your parents had an occupation of your choice. What factors cause this difference?</p> <p>Identify a business of industry in your community that is part of the global economy. What changes has that business or industry gone through in the last 3 years as a result of the global economy? Discuss your answers with the class.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE B1

Topic	Career Decision-Making
Performance Indicator	B. Understand the process for career decision-making.
Standard	1. Apply problem solving skills to make decisions.
SCANS	Information 7; Basic Skills 9, 13, 16
Show-Me Standards	1.2; 1.10; 3.6; 4.8; SS6
Objectives	<p>B101 Assess personal responsibility for making tentative educational and occupational choices.</p> <p>B102 Analyze alternatives in given decision-making situations.</p> <p>B103 Determine personal strengths and weaknesses in relationship to postsecondary education/training requirements.</p> <p>B104 Indicate appropriate choices during high school that will lead to marketable skills for entry-level employment or advanced training.</p> <p>B105 Distinguish required steps toward a personal transition from high school to entry into postsecondary education/training programs or work.</p> <p>B106 Determine steps to apply for and secure financial assistance for postsecondary education and training.</p>
Sample Activities	<p>Review your high school 4-year course plan for appropriate preparation for a career of your choice. Are there changes you can still make to better prepare for that career? Visit with your teacher and counselor about appropriate courses.</p> <p>Attend a meeting on preparing for post secondary education conducted by your school counselors or a college of your choice. Share information you learned about financial assistance with your classmates.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE B2

Topic	Career Decision-Making
Performance Indicator	B. Understand the process for career decision-making.
Standard	2. Examine the interrelationship of life roles as related to career planning.
SCANS	Information 7; Systems 15; Basic Skills 7, 16
Show-Me Standards	1.6; 1.8; 3.1; 4.3; CA3; SS6
Objectives	<p>B201 Document knowledge of life stages.</p> <p>B202 Assess factors that determine lifestyles (e.g. socioeconomic status, culture, values, occupational choices, work habits).</p> <p>B203 Determine ways in which occupational choices may affect lifestyle.</p> <p>B204 Appraise the contributions of work to a balanced and productive life.</p> <p>B205 Analyze the interrelationship of work, family, and leisure.</p> <p>B206 Compare different career patterns and their potential effect on family patterns and lifestyle.</p> <p>B207 Evaluate the importance of leisure activities.</p> <p>B208 Examine ways that occupational skills and knowledge can be acquired through leisure.</p> <p>B209 Identify evidence of gender stereotyping and bias in educational programs and occupational settings.</p> <p>B210 Analyze attitudes, behaviors, and skills that contribute to eliminating gender bias and stereotyping.</p>
Sample Activities	<p>Identify careers which are related to your favorite hobby. What education and experience are necessary to turn that hobby into a career? What are related career opportunities? Submit your information in writing.</p> <p>Select three varied careers and identify how they are different in terms of income, leisure time, geographic location, contribution to society, and family lifestyle. Present your information to the class.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE B3

Topic	Career Decision-Making
Performance Indicator	B. Understand the process for career decision-making.
Standard	3. Apply skills in personal career planning.
SCANS	Information 7, Basic Skills 12, 16
Show-Me Standards	1.8; 3.6; 4.1; 4.5; CA6; SS6
Objective	<p>B301 Formulate career plans that reflect the importance of lifelong learning.</p> <p>B302 Employ knowledge of postsecondary vocational and academic programs.</p> <p>B303 Give reasons why changes may require retraining and upgrading of employees' skills.</p> <p>B304 Determine school and community resources to explore educational and occupational choices.</p> <p>B305 Determine the costs and benefits of self-employment.</p> <p>B306 Compare occupational skills developed through volunteer experiences, part-time employment, and education programs.</p> <p>B307 Compare education and job opportunities</p>
Sample Activities	<p>Make a list of career and education opportunities you are interested in after high school. Prioritize the items on your list. What actions are necessary to realize your priority items? Submit your list to your teacher for comment.</p> <p>In class discuss possible changes in the workplace over the next 5 years which will require learning new skills. Prepare list of what these skills might be and how they could be acquired.</p>

Curriculum Standards and Indicators

Career Development and Employment – CDE C1

Topic	Career Portfolio
Performance Indicator	C. Understand the components required for a career portfolio.
Standard	1. Apply skills to seek, obtain, maintain, and change jobs.
SCANS	Information 5; Basic Skills 1, 2, 12
Show-Me Standards	1.2; 1.10; 3.5; 4.8; CA5; SS6
Objectives	<p>C101 Use skills to locate, interpret, and use information about job openings and opportunities.</p> <p>C102 Explore academic and/or vocational skills required for a full or part-time job.</p> <p>C103 Research skills and behaviors necessary for a successful job interview.</p> <p>C104 Demonstrate skills related to preparing a resume and completing job applications.</p> <p>C105 Locate specific job openings from accessed resources.</p> <p>C106 Demonstrate employability skills necessary to obtain and maintain jobs.</p> <p>C107 Assess occupational opportunities as related to working conditions, benefits, and opportunities for change.</p> <p>C108 Compare placement services available to make the transition from high school to civilian employment, the armed services, or post secondary education/training.</p>
Sample Activities	<p>Conduct a mock job interview which demonstrates what NOT to do for a successful interview. Ask class members to suggest improvements.</p> <p>Make a list of resources in your community which help people find employment. Write a brief description of each resource.</p> <p>Prepare a career portfolio which includes a resume, sample employment application, and career goals.</p>

Curriculum Standards and Indicators

CAREER DEVELOPMENT AND EMPLOYMENT RESOURCES

10 Minute Resume

<http://www.10minuteresume.com/>

ACT WorkKeys: Assessments

<http://www.act.org/workkeys/assess/index.html>

A Century of Change: The U.S. Labor Force, 1950–2050

Monthly Labor Review Online : May 2002, Vol. 125, No. 5

<http://www.bls.gov/opub/mlr/2002/05/art2exc.htm> (excerpt)

<http://www.bls.gov/opub/mlr/2002/05/art2full.pdf> (full article)

A Quick Personality Test

<http://www.users.interport.net/~zang/personality.html>

Behavioral Style Survey

<http://www.platinumrule.com/surveyi.html>

Bureau of Labor Statistics Home Page

<http://state.bls.gov/>

CAPS: Counseling and Psychological Services

<http://www.caps.ku.edu/career/tests.shtml> -

Career Activity File: Employability Skills

http://www.okcareertech.org/guidance/CareerInfo/CareerActivity03/CareerActFile_03.pdf

Career Interest Inventories

<http://www.paris95.k12.il.us/mayo/invent.html> -

Career Magazine

<http://www.careermag.com/>

Career Mosaic

<http://www.careermosaic.com/>

Careers On Line

<http://www.careersonline.com/>

CHOICES

<http://www.choicesedgroup.org>

College Connection Financial Aid Resources

<http://www.careermosaic.com/cm/cc/cc23.html>

Fortune Magazine's Job Hunting Guide

<http://www.pathfinder.com/fortune/careers/guide/index.html>

Curriculum Standards and Indicators

Implementing SCANS

By Arnold C. Packer and Scott Brainard

The Highlight Zone: Research @ Work , no. 10. Washington, DC: National Centers for Career and Technical Education, 2003.

<http://www.nccte.org/publications/infosynthesis/highlightzone/highlight10/index.asp>

Interest Inventories

<http://www.psu.edu/dus/md/mdinti.htm>

Interest and Personality Inventories

<http://www.central.edu/career/explore/inventories.htm>

Job Search Personality Tests

<http://jobsearch.about.com/cs/personalitytests/a/personalitytest.htm>

Lycos Career Directory

<http://lycos.com/careers>

Mike Farr's On-Line Get a Job Workshop

<http://www.jist.com/jist/jobwork.htm>

Monster.Com

<http://www.monster.com/>

National Life Work Center

<http://lifework.ca>

NEA Useful Web Sites for Educators

<http://www.nea.org/cet/links>

New York Times Daily Lesson Plan

<http://www.nytimes.com/learning/teachers/lessons/index.html>

New York Times Lesson Plan Archive

<http://www.nytimes.com/learning/teachers/lessons/archive.html>

One-Stop Sites

<http://www.wnjp.in.state.nj.us/OneStopCareerCenter/>

School-to-Work Learning Center

<http://www.stw.ed.gov>

Student Financial Assistance Program

<http://www.ed.gov/offices/OSFAP/Students/sfa.html>

Teacher's Guide to the Bureau of Labor Statistics Career Information

http://stats/bis.gov/k12/html/edu_tch.htm

The Career Interest Game

www.missouri.edu/~cppcwww/holland.shtml

The Career Key

<http://www.ncsu.edu/careerkey/index.html>

The Career Questionnaire

<http://www.collegeboard.org/career/html/searchQues.html>

==== Curriculum Standards and Indicators

The Interest-Finder Quiz

http://www.myfuture.com/secondary/career/ch_interestquiz.html

The Occupational Outlook Handbook

<http://stats.bls.gov/ocohome.htm>

The Occupational Outlook Quarterly Online

<http://stats.bls.gov/pub/ooq/ooqhome.htm>

The Resume Shop

<http://www.cyber-north.com/resume/>

University Career Services, Virginia

www.career.virginia.edu/students/resources/handouts/assessment.pdf

U.S. Department of Education

<http://www.ed.gov/free/comment.html>

U.S. News & World Report's Career Guide

<http://www.usnews/nycu/work/wo99car.htm>

Working in the 21st Century

U.S. Bureau of Labor Statistics

<http://www.bls.gov/pub/working/home.htm>

Work Readiness – Teacher Lesson Plans

Charlottesville Area School Business Alliance

<http://www.casba.net/lessonplans.html>

Workplace Readiness Learning Activities

Florida ABE Program

http://abeflorida.org/pdf/Resource_Guides/Resource-WorkplaceReadiness.pdf

Yahoo Career Resource Directory

http://dir.yahoo.com/Business_and_Economy/Employment_and_Work/

Curriculum Standards and Indicators

ENTREPRENEURSHIP AND BUSINESS ECONOMICS

Economic Concepts

A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership

1. Discuss basic concepts of entrepreneurship/small business ownership
 - A101 Distinguish between economic goods and services
 - A102 Explain the concept of economic resources
 - A103 Describe the nature of economics and economic activities
 - A104 Determine forms of economic utility created by business activities
 - A105 Explain the principles of supply and demand
 - A106 Describe the concept of price
 - A107 Explain the types of economic systems
 - A108 Determine the relationship between government and business
 - A109 Explain the concept of private enterprise
 - A110 Identify factors affecting a business's profit
 - A111 Determine factors affecting business risk
 - A112 Explain the concept of competition
 - A113 Identify the impact of small business/entrepreneurship on market economies
2. Examine cost-profit relationships
 - A201 Explain the concept of productivity
 - A202 Analyze the impact of specialization/division of labor on productivity
 - A203 Explain the concept of organized labor and business
 - A204 Explain the law of diminishing returns
3. Discuss economic indicators/trends
 - A301 Explain measures used to analyze economic conditions
 - A302 Explain the nature of the Consumer Price Index
 - A303 Explain the concept of Gross Domestic Product
 - A304 Determine the impact of business cycles on business activities
4. Recognize international business concepts
 - A401 Explain the nature of international trade

Curriculum Standards and Indicators

A402 Describe small-business opportunities in international trade

A403 Identify the impact of cultural and social environments on world trade

A404 Evaluate influences on a nation's ability to trade

Business Concepts

B. Understand fundamental business concepts that affect business decision making

1. Discuss fundamental business concepts

B101 Explain the role of business in society

B102 Describe types of business activities

B103 Identify types of businesses

B104 Explain opportunities for creating added value

B105 Identify issues and trends in business

B106 Describe crucial elements of a quality culture/continuous quality improvement

B107 Describe the role of management in the achievement of quality

2. Discuss core business activities

B201 Explain marketing management and its importance in a global economy

B202 Describe marketing functions and related activities

B203 Explain the nature and scope of operations management

B204 Explain the concept of management

B205 Explain the concept of financial management

B206 Explain the concept of human resource management

B207 Explain the concept of risk management

B208 Explain the concept of strategic management

Entrepreneurial Processes

C. Understands concepts and processes associated with successful entrepreneurial performance

1. Discuss the Discovery stage of entrepreneurship

C101 Explain the need for entrepreneurial discovery

C102 Assess global trends and opportunities

C103 Determine opportunities for venture creation

C104 Assess opportunities for venture creation

C105 Describe idea-generation methods

Curriculum Standards and Indicators

- C106 Generate venture ideas
- 2. Discuss the Concept Development stage of entrepreneurship
 - C201 Describe entrepreneurial planning considerations
 - C202 Explain tools used by entrepreneurs for venture planning
 - C203 Assess start-up requirements
 - C204 Assess risks associated with venture
 - C205 Describe external resources useful to entrepreneurs during concept development
 - C206 Use components of a business plan to define venture idea
- 3. Discuss the Resourcing stage of entrepreneurship
 - C301 Distinguish between debt and equity financing for venture creation
 - C302 Describe processes used to acquire adequate financial resources for venture creation/start-up
 - C303 Describe considerations in selecting capital resources
 - C304 Assess the costs/benefits associated with resources
- 4. Discuss the Actualization stage of entrepreneurship
 - C401 Explain the need for business systems and procedures
 - C402 Explain methods/processes for organizing work flow
 - C403 Explain the impact of resource productivity on venture success
 - C404 Create processes for ongoing opportunity recognition
 - C405 Adapt to changes in business environment
- 5. Discuss the Harvesting stage of entrepreneurship
 - C501 Explain the need for continuation planning
 - C502 Describe methods of venture harvesting
 - C503 Evaluate options for continued venture involvement
 - C504 Develop exit strategies

Entrepreneurial Traits/Behaviors

D. Understand the personal traits/behaviors associated with successful entrepreneurial performance

- 1. Conduct Personal Assessment
 - D101 Describe desirable entrepreneurial personality traits
 - D102 Determine personal biases and stereotypes
 - D103 Evaluate personal capabilities
 - D104 Conduct self-assessment to determine entrepreneurial potential

==== Curriculum Standards and Indicators

2. Manage Personal Traits

D201 Maintain positive attitude

D202 Demonstrate interest and enthusiasm

D203 Develop an orientation to change

D204 Demonstrate problem-solving skills

D205 Assume personal responsibility for decisions

D206 Use time-management principles

D207 Develop tolerance for ambiguity

D208 Use feedback for personal growth

D209 Demonstrate creativity

D210 Set personal goals

Adapted from "National Content Standards for Entrepreneurship Education", Consortium for Entrepreneurship Education.

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE A1

Topic	Economic Principles
Performance Indicator	A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership
Standard	1. Discuss basic concepts of entrepreneurship/small business ownership
SCANS	Information 5; Systems 15; Basic Skills 6; Thinking Skills 12
Show-Me Standards	1.9; 2.1; SS4
Objectives	<p>A101 Distinguish between economic goods and services</p> <p>A102 Explain the concept of economic resources</p> <p>A103 Describe the nature of economics and economic activities</p> <p>A104 Determine forms of economic utility created by business activities</p> <p>A105 Explain the principles of supply and demand</p> <p>A106 Describe the concept of price</p> <p>A107 Explain the types of economic systems</p> <p>A108 Determine the relationship between government and business</p> <p>A109 Explain the concept of private enterprise</p> <p>A110 Identify factors affecting a business's profit</p> <p>A111 Determine factors affecting business risk</p> <p>A112 Explain the concept of competition</p> <p>A113 Identify the impact of small business/entrepreneurship on market economies</p>
Sample Activities	<p>Select a product and prepare a graph showing the variations of supply and demand for that product over time.</p> <p>Interview a business person and an elected official about the ways in which government supports business and ways in which it restricts business. Present your interview findings in a written report and as an oral presentation to the class.</p> <p>Research the growth of entrepreneurial businesses in command economies such as China and Vietnam. Identify three reasons for this growth, and relate those reasons to the US economic growth.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE A2

Topic	Economic Principles
Performance Indicator	A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership
Standard	2. Examine cost-profit relationships
SCANS	Information 5; Systems 15; Basic Skills 6; Thinking Skills 12
Show-Me Standards	1.8; 2.1; SS4
Objectives	A201 Explain the concept of productivity A202 Analyze the impact of specialization/division of labor on productivity A203 Explain the concept of organized labor and business A204 Explain the law of diminishing returns
Sample Activities	Describe in writing how information technology has increased productivity in a local business or industry of your choice. Prepare a presentation which covers the pros and cons of organized labor as a contributor to economic development.

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE A3

Topic	Economic Principles
Performance Indicator	A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership
Standard	3. Discuss economic indicators/trends
SCANS	Information 5, Systems 15, Basic Skills 6
Show-Me Standards	1.10, 2.1, MA1, SS4
Objectives	A301 Explain measures used to analyze economic conditions A302 Explain the nature of the Consumer Price Index A303 Explain the concept of Gross Domestic Product A304 Determine the impact of business cycles on business activities
Sample Activities	Select four measures of economic conditions and prepare a presentation which explains those measures and their important to business activities. Define GDP, GNP, balance of trade, trade deficit, and balance of payments and explain how these terms are related, and how they are different.

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE A4

Topic	Economic Principles
Performance Indicator	A. Understand the economic principles and concepts fundamental to entrepreneurship/small-business ownership
Standard	4. Recognize international business concepts
SCANS	Information 5; Basic Skills 1, 6; Thinking Skills 12
Show-Me Standards	1.10; 2.3; CA7; SS6
Objectives	<p>A401 Explain the nature of international trade</p> <p>A402 Describe small-business opportunities in international trade</p> <p>A403 Identify the impact of cultural and social environments on world trade</p> <p>A404 Evaluate influences on a nation's ability to trade</p>
Sample Activities	<p>Identify five items in your home that were imported into the US and their country of origin. What advantages does that country have that caused the item to be imported and sold in the US? Present your answers in written form.</p> <p>Select a product from your local community or state that is being exported. Identify for the class the positive and negative impact of producing that product for export.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE B1

Topic	Business Concepts
Performance Indicator	B. Understand fundamental business concepts that affect business decision making
Standard	1. Discuss fundamental business concepts
SCANS	Information 5; Systems 15; Basic Skills 1; Thinking Skills 12
Show-Me Standards	1.8; 2.3; CA6; SS4
Objectives	<p>B101 Explain the role of business in society</p> <p>B102 Describe types of business activities</p> <p>B103 Identify types of businesses</p> <p>B104 Explain opportunities for creating added value</p> <p>B105 Identify issues and trends in business</p> <p>B106 Describe crucial elements of a quality culture/continuous quality improvement</p> <p>B107 Describe the role of management in the achievement of quality</p>
Sample Activities	<p>Identify three business related issues currently in the news. Write a brief description of the issue, possible causes and possible solutions.</p> <p>Interview a business manager about their contribution to a quality product or service. Present your findings to the class.</p> <p>Select a product with which you are familiar. Identify how value has been added from production to consumption.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE B2

Topic	Business Concepts
Performance Indicator	B. Understand fundamental business concepts that affect business decision making
Standard	2. Discuss core business activities
SCANS	Information 5; Interpersonal 10; Basic Skills 1, 6; Thinking Skills 12
Show-Me Standards	1.8; 2.3; CA6; SS4
Objectives	<p>B201 Explain marketing management and its importance in a global economy</p> <p>B202 Describe marketing functions and related activities</p> <p>B203 Explain the nature and scope of operations</p> <p>B204 management</p> <p>B205 Explain the concept of management</p> <p>B206 Explain the concept of financial management</p> <p>B207 Explain the concept of human resource management</p> <p>B208 Explain the concept of risk management</p> <p>Explain the concept of strategic management</p>
Sample Activities	<p>Select a product or service and describe in writing how the various marketing functions are used to get that product from the producer to the consumer.</p> <p>Select a job title which matches with each of the management concepts listed above. Provide a brief list of duties for each job and general qualifications for those jobs.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE C1

Topic	Entrepreneurship Concepts
Performance Indicator	C. Understands concepts and processes associated with successful entrepreneurial performance
Standard	1. Discuss the Discovery stage of entrepreneurship
SCANS	Information 5, 7; Systems 15; Basic Skills 7; Thinking Skills 12
Show-Me Standards	1.6; 2.1; 3.5; 3.8; SS4
Objectives	<p>C101 Explain the need for entrepreneurial discovery</p> <p>C102 Assess global trends and opportunities</p> <p>C103 Determine opportunities for venture creation</p> <p>C104 Assess opportunities for venture creation</p> <p>C105 Describe idea-generation methods</p> <p>C106 Generate venture ideas</p>
Sample Activities	<p>Select a common item found in your home. Make a list of possible secondary uses for that item. Share your list with classmates.</p> <p>How would you improve the common bathtub? Describe features you would add to the bathtub. Why or why not these features would be incorporated into bathtubs. Be prepared to defend your reasons in a class discussion.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE C2

Topic	Entrepreneurship Concepts
Performance Indicator	C. Understands concepts and processes associated with successful entrepreneurial performance
Standard	2. Discuss the Concept Development stage of entrepreneurship
SCANS	Information 5, 7, Systems 15, Basic Skills 1, 6, 7
Show-Me Standards	1.8, 2.1, 3.8, 4.5, SS4
Objectives	<p>C201 Describe entrepreneurial planning considerations</p> <p>C202 Explain tools used by entrepreneurs for venture planning</p> <p>C203 Assess start-up requirements</p> <p>C204 Assess risks associated with venture</p> <p>C205 Describe external resources useful to entrepreneurs during concept development</p> <p>C206 Use components of a business plan to define venture idea</p>
Sample Activities	<p>Identify an agency or institution in or near your community which supports new business start-ups. Describe in a written report the services offered by that agency or institution.</p> <p>Go to an on-line business plan website. Identify the parts of the business plan which request information on the venture idea. What do you need to know about your idea before writing a business plan?</p> <p>Interview a local entrepreneur about how they got started in their business, what risks they accepted, and how they met those risks. Share your findings with the class.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE C3

Topic	Entrepreneurship Concepts
Performance Indicator	C. Understands concepts and processes associated with successful entrepreneurial performance
Standard	3. Discuss the Resourcing stage of entrepreneurship
SCANS	Information 5, 7, Interpersonal 10, Basic Skills 1, 6, 12
Show-Me Standards	1.8, 3.5, SS4
Objectives	<p>C301 Distinguish between debt and equity financing for venture creation</p> <p>C302 Describe processes used to acquire adequate financial resources for venture creation/start-up</p> <p>C303 Describe considerations in selecting capital resources</p> <p>C304 Assess the costs/benefits associated with resources</p>
Sample Activities	<p>Arrange for an officer of a local bank to speak to the class about the bank's services for businesses, particularly new business start ups. Have the class prepare questions in advance.</p> <p>As a group identify four sources of start-up capital. List the advantages and disadvantages of each source.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE C4

Topic	Entrepreneurship Concepts
Performance Indicator	C. Understands concepts and processes associated with successful entrepreneurial performance
Standard	4. Discuss the Actualization stage of entrepreneurship
SCANS	Information 5, 7; Systems 15; Basic Skills 1, 6, 7, 12
Show-Me Standards	2.4; 4.5; SS4
Objectives	<p>C401 Explain the need for business systems and procedures</p> <p>C402 Explain methods/processes for organizing work flow</p> <p>C403 Explain the impact of resource productivity on venture success</p> <p>C404 Create processes for ongoing opportunity recognition</p> <p>C405 Adapt to changes in business environment</p>
Sample Activities	<p>Prepare a written plan for conducting a fund raising activity. Show various tasks that need to be accomplished, timelines, and procedures. Develop an organization chart with job duties for the fund raising activity.</p> <p>Identify three products, services, or businesses you are familiar with. How have those changed over the last three years? What caused the need for change? Has the change been successful? Share your answers with the class.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE C5

Topic	Entrepreneurship Concepts
Performance Indicator	C. Understands concepts and processes associated with successful entrepreneurial performance
Standard	5. Discuss the Harvesting stage of entrepreneurship
SCANS	Information 5, 7; Systems 15; Basic Skills 6, 8
Show-Me Standards	1.2; 1.7; 4.5; SS4
Objectives	C501 Explain the need for continuation planning C502 Describe methods of venture harvesting C503 Evaluate options for continued venture involvement C504 Develop exit strategies
Sample Activities	Form two teams to debate the statement, “Entrepreneurs are born and not made.” Summarize key points made by both sides at the conclusion of the debate. Is there a business in your community that has “Been in the same family for generations”? Interview the owner about how and why that was able to happen, and other options that may have been considered for continuing the business. Present your findings to the class.

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE D1

Topic	Entrepreneurial Traits/Behaviors
Performance Indicator	D. Understand the personal traits/behaviors associated with successful entrepreneurial performance
Standard	1. Conduct Personal Assessment
SCANS	Information 6; Interpersonal 14; Thinking Skills 12, 16
Show-Me Standards	1.2; 4.6; CA6; SS6
Objectives	<p>D101 Describe desirable entrepreneurial personality traits</p> <p>D102 Determine personal biases and stereotypes</p> <p>D103 Evaluate personal capabilities</p> <p>D104 Conduct self-assessment to determine entrepreneurial potential</p>
Sample Activities	<p>Complete one of the many entrepreneurial trait assessments found in books or on the Web. Assess how you compare to the common entrepreneurial traits.</p> <p>Locate case studies on four or five entrepreneurs. Is there a set of common characteristics? Share your opinion with the class.</p> <p>List any entrepreneurial type activity you may have been involved in, such as fund raising, yard sales, etc. and three things you learned from these activities. List three entrepreneurial activities available to you in your school or community and the risks and rewards for each.</p>

Curriculum Standards and Indicators

Entrepreneurship and Business Economics – EBE D2

Topic	Entrepreneurial Traits/Behaviors
Performance Indicator	D. Understand the personal traits/behaviors associated with successful entrepreneurial performance
Standard	2. Manage Personal Traits
SCANS	Interpersonal 9, 12, 13, 14; Thinking Skills 7; Personal Qualities 15
Show-Me Standards	1,10; 3.3; 4.5; 4.6; CA6; SS6
Objectives	D201 Maintain positive attitude D202 Demonstrate interest and enthusiasm D203 Develop an orientation to change D204 Demonstrate problem-solving skills D205 Assume personal responsibility for decisions D206 Use time-management principles D207 Develop tolerance for ambiguity D208 Use feedback for personal growth D209 Demonstrate creativity D210 Set personal goals
Sample Activities	<p>Write a description of a situation which demonstrates how a personal trait, or lack thereof, can be a problem for starting a new business. Ask class members to suggest possible solutions to the problem.</p> <p>Make a list of all the things you have to do over the next three days. In one column give each item a priority rank based on its importance to you. In a second column rank the items based on importance to others. Any differences? What causes the difference? How will you deal with the differences, and what are the possible results of that decision?</p>

Curriculum Standards and Indicators

ENTREPRENEURSHIP AND BUSINESS ECONOMICS RESOURCES

American Marketing Association
<http://www.MarketingPower.com>

[AskERIC Lesson Plans](#) (Educational Resources Information Center)
A variety of economics-based lesson plans and activities for students in grades 4 through 12.

Burrow, J.L. (2003). *Business 2000*:). Cincinnati: South-Western.

Business Resource Center
<http://www.morebusiness.com/>

[CELCEE](#) Center for Entrepreneurial Leadership Clearinghouse on Entrepreneurship Education)
Database containing abstracts of materials on entrepreneurship education at all levels, and a collection of links to the Web pages of organizations dealing with entrepreneurship and entrepreneurship education.

Center for Women's Business Research
<http://www.nfwbo.org>

DECA
www.deca.org

Econ Ed Link
www.econedlink.org
<http://www.econedlink.org/lessons/index.cfm>

Economics Education Homepage
<http://ecedweb.unomaha.edu/>

Entrepreneur Magazine
<http://www.entrepreneur.com/>

Entrepreneur Magazine
Published monthly in Irvine, CA, Phone: 714-261-2325,
www.entrepreneurmag.com

Entrepreneurship: What business am I in? (Lesson Plan on goals and mission statements)
http://slincs.coe.utk.edu/gtelab/learning_activities/54rolg.html

Entrepreneurship and Small Business Management 2000
Glencoe/McGraw-Hill
936 Eastwind Drive
Westerville, OH 43081

Entrepreneurs in History—Success vs. Failure: Role Models of Entrepreneurship Emerson Klees
paperback, 320 pages, ISBN: 0-9635990-1-1
LCCN: 95-61071. Publication date: April 1999

Curriculum Standards and Indicators

EntreWorld
<http://www.entreworld.com>

Ewing Marion Kauffman Foundation
4801 Rockhill Rd.
Kansas City, MO 64110
Web site: www.entreworld.org

Farese, L.S., Kimbrell, G., & Woloszyk, C.A. (2002). *Marketing essentials* (3rd ed.) Woodland Hills, CA: Glencoe/McGraw-Hill.

Fast Company Magazine
<http://www.fastcompany.com>

Forbes Business Magazine
<http://www.forbes.com/>

Generation E: The Do-It-Yourself Business Guide for Twentysomethings and Other Non-Corporate Types
Ten Speed Press
999 Harrison Street
Berkeley, CA 94710
510-559-1600, ext. 3029
Fax: 510-524-4588
Email: sd@tenspeed.com

GoVenture
Career and Life Skills Contact: Media Spark Inc. P O Box 975 Sydney, NS Canada B1P 6J4 800-331-2282 902-562-0042 For more information, and to access free educational activities, visit <http://www.goventure.net>

Inc. Magazine
<http://www.inc.com>

Internet Commerce Magazine
<http://www.wilsonweb.com/>

Junior Achievement
www.ja.org

Making Cent\$ International
<http://www.makingcents.com>

MarkEd/Career Paths Resource Center
P.O. Box 12279
Columbus, OH 43212-0279
800-448-0398
Fax: 614-486-1819
Email: service@mark-ed.com
Web site: www.mark-ed.com

Microsoft Corporation
<http://www.microsoft.com/education/>

MoneyHunter-Entrepreneurship Information
<http://www.moneyhunter.com>

Curriculum Standards and Indicators

[Money and the Economy Modular Series](#)

(Federal Reserve Bank of San Francisco)

Short, computer-animated videos that illustrate standard concepts in high school economics.

National Content Standards for Entrepreneurship Education, Consortium for Entrepreneurship Education, Columbus, Ohio, 2004.

PACE curriculum, developed by the Consortium for Entrepreneurship Education, contact the Center of Education and Training for Employment at the Ohio State University, Publications Office, 1900 Kenny Rd., Columbus, OH 43210 (phone: 614-292-4277),

Problem-Based Economics

<http://www.bie.org/pbss/pbe/unitoverview.php>

PSI Research/Oasis Press

P.O. Box 3727

Central Point, Oregon 97502-0032

541-479-9464

Fax: 541-476-1479

Email: info@psi-research.com

Web site: <http://www.psi-research.com/oasis.htm>

Small Business Administration Answer Desk

<http://www.sba.gov/answerdesk.html>

Small Business Advancement National Center

<http://www.sbaer.uca.edu>

South-Western Publishing Co.

<http://www.swlearning.com/swhome.html>

Success Magazine

Published 10/year in New York, NY, Phone 914-937-9600,

www.successmagazine.com

The One Page Business Plan

http://www.onepagebusinessplan.com/opbp/eight_week.pdf (Curriculum)

http://www.onepagebusinessplan.com/sample_plans.html (Sample plans)

Wall Street Journal Classroom Edition

<http://info.wsj.com/classroom/>

Y&E: The Magazine for Teen Entrepreneurs

<http://ye.entreworld.org>

Young Money

www.youngmoney.com/entrepreneur

Curriculum Standards and Indicators

ETHICS AND SOCIAL RESPONSIBILITY

Ethical Behavior

A. Understand and apply ethical behavior in the workplace

1. Explain the importance of workplace ethics.
 - A101 Define workplace ethics
 - A102 Analyze reasons employees behave in an unethical manner.
 - A103 Describe the consequences of unethical behavior.
 - A104 Discuss business issues from an ethical perspective.

2. Apply ethical factors when making decisions.
 - A201 Develop a personal code of ethics.
 - A202 Distinguish between ethical and unethical actions in the workplace.
 - A203 Make ethical decisions in the workplace

Laws and Regulations

B. Understand laws and regulations that apply to employment.

1. Explain legal issues affecting business.
 - B101 Describe the advantages and disadvantages of various forms of business ownership.
 - B102 Define employee rights and responsibilities
 - B103 Explain how discrimination, affirmative action and reverse discrimination affect the workplace.
 - B104 Define whistle blowing and its potential results
 - B105 Describe actions to prevent and address sexual harassment
 - B106 Describe the importance of protecting intellectual property.

2. Explain local, state and federal laws and regulations affecting the workplace.
 - B201 Describe local laws which pertain to business.
 - B202 Describe state laws which pertain to business.
 - B203 Describe federal laws which pertain to business.
 - B204 Explain workplace regulations such as OSHA, ADA.
 - B205 Describe business' reporting requirements.

==== Curriculum Standards and Indicators

Social Responsibility

C. Understand the responsibility business has to society.

1. Describe social demands that affect business.
 - C101 Define social responsibility
 - C102 Cite examples of social responsibility
 - C103 Explain the concept of business stakeholders.

2. Describe environmental concerns that affect business.
 - C201 Describe the environmental risks of business operation.
 - C202 Explain environmental laws and regulations related to business operation.
 - C203 Identify strategies to address environmental concerns

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR A1

Topic	Ethical Behavior
Performance Indicator	A. Understand and apply ethical behavior in the workplace.
Standard	1. Explain the importance of workplace ethics.
SCANS	Information 5; Thinking Skills 8; Personal Qualities 17
Show-Me Standards	1.10; 3.6; 4.4; SS6
Objectives	<p>A101 Define workplace ethics.</p> <p>A102 Analyze reasons employees behave in an unethical manner.</p> <p>A103 Describe the consequences of unethical behavior.</p> <p>A104 Discuss business issues from an ethical perspective.</p>
Sample Activities	<p>Form teams to present and defend a business pro or con perspective on an ethical matter in the news. Conduct a classroom discussion which presents both perspectives.</p> <p>Research two events in the past year which have brought business ethics to national attention. Present the facts of situation, possible causes, potential or real results, and the lessons to be learned from that situation in a paper submitted to your teacher.</p> <p>Locate the workplace ethics statement for your work place, or for another company if your workplace does not have such a statement. Discuss in the class the reasons for the statement, penalties for violation of the ethics statement, and suggest possible improvements to the statement.</p>

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR A2

Topic	Ethical Behavior
Performance Indicator	A. Understand and apply ethical behavior in the workplace.
Standard	2. Apply ethical factors when making decisions.
SCANS	Information 7; Thinking Skills 8; Personal Qualities 14, 17
Show-Me Standards	1.2; 3.8; 4.4
Objectives	<p>A201 Develop a personal code of ethics.</p> <p>A202 Distinguish between ethical and unethical actions in the workplace.</p> <p>A203 Make ethical decisions in the workplace.</p>
Sample Activities	<p>Write your own code of personal ethics based your research and examples of other personal codes of ethics. Submit your written code to your teacher for review.</p> <p>Use the Internet to locate case studies involving ethical decision making in business. Present the case studies to class teams for discussion.</p> <p>Identify a situation in which you or another person at your workplace had to make an ethical decision. In writing describe the situation, the decision to be made, how that decision was made, and how the decision could be improved. Share your work in a class discussion.</p>

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR B1

Topic	Laws and Regulations
Performance Indicator	B. Understand laws and regulations that apply to employment.
Standard	1. Explain legal issues affecting business.
SCANS	Information 7; Thinking Skills 12
Show-Me Standards	1.2; 1.10; 4.2; CA6; SS6
Objectives	<p>B101 Describe the advantages and disadvantages of various forms of business ownership.</p> <p>B102 Define employee rights and responsibilities.</p> <p>B103 Explain how discrimination, affirmative action and reverse discrimination affect the workplace.</p> <p>B104 Define whistle blowing and its potential results.</p> <p>B105 Describe actions to prevent and address sexual harassment.</p> <p>B106 Describe the importance of protecting intellectual property.</p>
Sample Activities	<p>Prepare a presentation which explains the different types of business ownership, advantages and disadvantages of each, and examples of the different type of ownership in your community.</p> <p>Interview a local business owner to discuss how they organized to start their business, what type of ownership they have of the business, and what the owner sees as the advantages and disadvantages of that type ownership. Present your findings in a class discussion.</p> <p>Research two recent examples of whistle blowing in business or government. In a written paper identify the problem which led to whistle blowing, the results, and the protections afforded the person who blew the whistle.</p> <p>Ask your school librarian to make a brief presentation to the class on protecting intellectual property rights, including electronic and print media.</p>

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR B2

Topic	Laws and Regulations
Performance Indicator	B. Understand laws and regulations that apply to employment.
Standard	2. Explain local, state and federal laws and regulations affecting the workplace.
SCANS	Information 7; Systems 15; Thinking Skills 10
Show-Me Standards	1.10; 2.6; 3.6; 4.7; SS1
Objectives	<p>B201 Describe local laws which pertain to business.</p> <p>B202 Describe state laws which pertain to business.</p> <p>B203 Describe federal laws which pertain to business.</p> <p>B204 Explain workplace regulations such as OSHA, ADA.</p> <p>B205 Describe business' reporting requirements.</p>
Sample Activities	<p>Contact your local chamber of commerce and government offices for information on local laws and regulations affecting business, such as taxes, business permits, etc. Make a list of laws and regulations with which a business must comply. Make a poster which lists the laws and regulations, and the local entity charge with enforcement.</p> <p>Research OSHA regulations and prepare a class presentation on the most relevant OSHA requirements for business. Include how OSHA is enforced and how businesses comply with OSHA.</p> <p>Interview your workplace supervisor to discuss state and federal laws which affect the business. Make a list of those mentioned and present the list and reasons mentioned by your supervisor to the class.</p>

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR C1

Topic	Social Responsibility
Performance Indicator	C. Understand the responsibility business has to society.
Standard	1. Describe social demand that affect business.
SCANS	Information 7; Personal Qualities 13
Show-Me Standards	1.10; 4.3; 4.7; CA3; SS6
Objectives	C101 Define social responsibility. C102 Cite examples of social responsibility. C103 Explain the concept of business stakeholders.
Sample Activities	<p>Prepare a list of the community and charitable contributions made by your company over the last year. Share your list in a class discussion.</p> <p>Make a list of the stakeholders in your company. Ask your supervisor to review the list and make suggestions. Include a statement of the involvement each stakeholder has with the company.</p> <p>Read one of the following three works and write a report including the ethical questions the title characters were involved with and how they resolved them. <u>The Great Gatsby</u> by F. Scott Fitzgerald; <u>Babbitt</u> by Sinclair Lewis; <u>Death of A Salesman</u> by Arthur Miller.</p>

Curriculum Standards and Indicators

Ethics and Social Responsibility – ESR C2

Topic	Social Responsibility
Performance Indicator	C. Understand the responsibility business has to society.
Standard	2. Describe environmental concerns that affect business.
SCANS	Information 7; Systems 15; Personal Qualities 17
Show-Me Standards	1.2; 3.2; 4.5; SS6
Objectives	<p>C201 Describe the environmental risks of business operation.</p> <p>C202 Explain environmental laws and regulations related to business operation.</p> <p>C203 Identify strategies to address environmental concerns.</p>
Sample Activities	<p>Attend an environmental quality committee meeting in your community. Report to the class the issues discussed, decisions made, and how those decisions could affect business in your community.</p> <p>Volunteer for a “Stream Team” in your area. Write a paper based on your experiences which describes how businesses could better contribute to environmental quality.</p> <p>Prepare a list of any specific environmental laws and regulations with which your company must comply. Include steps taken to insure compliance.</p>

Curriculum Standards and Indicators

ETHICS AND SOCIAL RESPONSIBILITIES

RESOURCES

Applied Ethics Resources on the Web

<http://www.ethicsweb.ca/resources/business>

As You Sow Foundation Environmental and Social Responsibility

<http://www.asyousow.org>

Better Business Bureau

<http://www.bbb.org>

Business Ethics Links Library

http://libnet.colorado.edu/Bell/b_topics.html

Business Ethics Magazine

<http://www.business-ethics.com>

Business Ethics: Managing Ethics in the Workplace and Social Responsibility.

<http://www.mapnp.org/library/ethics/ethics.htm>

Business for Social Responsibility

<http://www.bsr.org>

Commission for Ethical and Responsible Student Behavior. *Taking Responsibility: Standards for Ethical and Responsible Behavior in Maine Schools and Communities*. Augusta, ME: Maine Department of Education, 2002. 6/25/02

http://www.state.me.us/education/cep/cep_reports.htm

Creating a Code of Ethics For Your Organization

<http://www.ethicsweb.ca/codes>

Eldis Corporate Social Responsibility Resource Guide

<http://www.eldis.org/csr>

Ethics Resource Center

<http://www.ethics.org>

Goodcharacter.com School to Work: Character in the Workplace

<http://www.Character Education - Workplace Ethics - School to Work - Workplace Readiness.htm>

Government Accountability Project

<http://www.whistleblower.org>

Illinois Business Education Association Resources

<http://www.ibea.org/ibeapubs/conferencpublications/2000publication.pdf>

Junior Achievement Business Ethics Center

<http://www.ja.org/ethics>

South-Western Publishing Business News

<http://www.Intro to Business News Topic Business Ethics & Social Responsibility.htm>

==== Curriculum Standards and Indicators

US Department of Justice
<http://www.usdoj.gov>

US Office of government ethics
<http://www.usoge.gov>

Utah Valley State College – case studies in business ethics
<http://www.uvsc.edu/ethics/curriculum/business>

Curriculum Standards and Indicators

Leadership and Teamwork

Developing Knowledge of Self and Others

A. Understand that knowledge of self and others is the foundation of leadership.

1. Evaluate personal self-image.
 - A101 Compare one's own interests, values, and skills with those of selected effective leaders.
 - A102 Evaluate one's own desire for leadership roles in the local, state, national, and world communities.
 - A103 Define ways to capitalize on individual strengths and improve areas of personal weakness.
2. Evaluate personal behaviors.
 - A201 Recognize the ongoing benefits of self-analysis.
 - A202 Evaluate one's decisions and actions in terms of short- and long-term consequences.
 - A203 Evaluate one's behaviors in terms of their positive or negative effects on others.
 - A204 Apply self-management techniques.
3. Use knowledge of others to improve one's leadership skills.
 - A301 Create strategies to utilize the strengths and diminish the limitations of group members.
 - A302 Demonstrate ways to organize and delegate responsibilities.
 - A303 Encourage ideas, perspectives, and contributions of all group members.
 - A304 Use leadership skills to encourage cooperation and collaboration among groups with different needs and concerns.

Defining Leadership

B. Understand how characteristics, relationships and context interact in leadership roles.

1. Analyze the characteristics of leaders.
 - B101 Identify and discuss effective leadership qualities, such as integrity and wisdom (in addition to setting of limits, tolerance, self-reliance, initiative, charisma, competence, honesty, care for others, civility, fairness, responsibility, courage, and reliability).

Curriculum Standards and Indicators

- B102 Explain how leadership traits apply to many aspects of life, such as economic and political systems, scientific discoveries, mathematical reasoning, and artistic endeavors.
 - B103 Examine leadership theories that explore different styles/types of leadership.
2. Analyze the complex relationship between the leader and the follower.
 - B201 Critically analyze situations in which followers become leaders.
 - B203 Analyze and understand the dynamic relationship between the leader and the follower.
 3. Evaluate the role of context in the process of leadership.
 - B301 Analyze the influence of different contexts on leadership, such as gender, ethnicity, political affiliation, religion, and socio-economics.
 - B302 Understand that as contexts change, leaders may become followers, and followers may become leaders.
 - B303 Evaluate the effects of changing situations upon leadership roles in the family, classroom, school, community, state, nation, and world.

Developing Leadership Skills and Practices

C. Understand the functions of effective leadership.

1. Communicate effectively in pairs, small groups, teams, and large groups.
 - C101 Suspend judgment until all ideas are expressed.
 - C102 Interpret and synthesize ideas.
 - C103 Present personal ideas as well as those of others in a clear, concise, and effective manner.
 - C104 Balance personal expression with others' contributions.
 - C105 Distinguish between fact and opinion.
 - C106 Work toward consensus in heterogeneous groups.
 - C107 Facilitate the mediation of conflict.
 - C108 Motivate team members individually and collectively to collaborate to achieve a common purpose.
2. Analyze and refine decision-making skills.
 - C201 Implement, monitor progress toward, and evaluate solutions.
 - C202 Support group decisions.
 - C203 Adjust group decisions according to changes within or outside the group.

Curriculum Standards and Indicators

C204 Refine skills in parliamentary procedure to facilitate meetings or discussions.

3. Evaluate the relationship between personal vision and the group vision.

C301 Present one's personal vision to a group, using persuasive techniques.

C302 Compare one's personal vision with that of a group.

C303 Recognize the necessity for compromise in various leadership situations.

C304 Motivate others to act according to the group's vision.

Practicing Leadership

D. Understand how leadership can be demonstrated at the workplace.

1. Analyze leadership at the workplace

D101 Identify leadership positions and opportunities at the workplace.

D102 Assess the leadership qualities of various leaders at the workplace

D103 Identify experience and educational preparation necessary for assuming leadership positions at the workplace

2. Practice leadership through CTSO activities.

D201 Evaluate needs within the school, local community, state and nation.

D202 Set goals for a CTSO activity.

D203 Develop a plan to achieve the established goals for the CTSO activity.

D204 Build teamwork among CTSO activity participants.

D205 Demonstrate effective decision making.

D206 Manage conflict within the CTSO activity.

Adapted from "Linking Leadership and Instruction: A Leadership Development Curriculum for Virginia Public Schools." Virginia Board of Education, August, 2003.

Curriculum Standards and Indicators

Leadership and Teamwork – LT A1

Topic	Developing Knowledge of Self and Others
Performance Indicator	A. Understand that knowledge of self and others is the foundation of leadership.
Standard	1. Evaluate personal self-image.
SCANS	Thinking Skills 7, 12; Personal Qualities 14, 16, 17
Show-Me Standards	1.6; 1.10; 4.3; SS6
Objectives	<p>A101 Compare one’s own interests, values, and skills with those of selected effective leaders.</p> <p>A102 Evaluate one’s own desire for leadership roles in the local, state, national, and world communities.</p> <p>A103 Define ways to capitalize on individual strengths and improve areas of personal weakness.</p>
Sample Activities	<p>Write a paragraph describing how you think a certain leader was as a student your age. 1. What do you suppose were their strengths and weaknesses? 2. How do those compare with how you see yourself as a potential leader? Share your paragraph and answer to question 1 with the class. Keep your response to question 2 for your future reference.</p> <p>List three leadership positions at the local, state or national levels. What are the benefits and disadvantages of each? Discuss your answers with the class.</p> <p>Read a biography of a leader of your choice. Write a book report to share with the class. Include the characteristics which you think contributed to their leadership success.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT A2

Topic	Developing Knowledge of Self and Others
Performance Indicator	A. Understand that knowledge of self and others is the foundation of leadership.
Standard	2. Evaluate personal behaviors.
SCANS	Resources 4; Interpersonal 9; Personal Qualities 14, 16
Show-Me Standards	1.2; 3.5; 4.3; SS6
Objectives	<p>A201 Recognize the ongoing benefits of self-analysis.</p> <p>A202 Evaluate one’s decisions and actions in terms of short- and long-term consequences.</p> <p>A203 Evaluate one’s behaviors in terms of their positive or negative effects on others.</p> <p>A204 Apply self-management techniques.</p>
Sample Activities	<p>Write a brief case problem where the actions of one employee at work had a negative impact on another. Describe the reason for the action and how the situation could have been handled differently. Share the case study with the class.</p> <p>Identify a decision you made three or four years ago that affects your life today. Were you aware of the potential long term effect at the time you made the decision? Would you make the same decision again? What could have caused you to make a different decision, and how would your life be different now if you had? Write your responses in a personal journal for your own reference.</p> <p>Create a time or financial budget. Identify where you want to make improvements to meet your goals. Record your time or money expenditures for a month and report on how your expenditures matched your budget.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT A3

Topic	Developing Knowledge of Self and Others
Performance Indicator	A. Understand that knowledge of self and others is the foundation of leadership.
Standard	3. Use knowledge of others to improve one's leadership skills.
SCANS	Resources 4; Interpersonal 9, 13, 14
Show-Me Standards	1.10; 2.3; 3.3; 4.1; 4.6; CA6; SS6
Objectives	<p>A301 Create strategies to utilize the strengths and diminish the limitations of group members.</p> <p>A302 Demonstrate ways to organize and delegate responsibilities.</p> <p>A303 Encourage ideas, perspectives, and contributions of all group members.</p> <p>A304 Use leadership skills to encourage cooperation and collaboration among groups with different needs and concerns.</p>
Sample Activities	<p>Lead a brainstorming session on ideas for a community service project. After the session have the group members critique the process in a discussion format.</p> <p>Create an organizational chart for a fund raising project. Assign class members to the various positions. Provide a brief explanation of your rationale for the assignments. Submit your chart to the teacher.</p> <p>Conduct a role play exercise where you are the city mayor and two groups having different opinions about the building of a new fire house. Lead the meeting so that both groups provide their side, identify common ideas, and areas of conflict.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT B1

Topic	Defining Leadership
Performance Indicator	B. Understand how characteristics, relationships and context interact in leadership roles.
Standard	1. Analyze the characteristics of leaders.
SCANS	Information 7; Interpersonal 10, 12; Basic Skills 6
Show-Me Standards	1.8; 1.10; 4.1; SS6
Objectives	<p>B101 Identify and discuss effective leadership qualities, such as integrity, wisdom, initiative, charisma, responsibility, and courage.</p> <p>B102 Explain how leadership traits apply to many aspects of life, such as economic and political systems, scientific discoveries, mathematical reasoning, and artistic endeavors.</p> <p>B103 Examine leadership theories that explore different styles/types of leadership.</p>
Sample Activities	<p>Select someone you consider to be a leader, and identify what qualities there are about that person which you believe make them an effective leader. Share your ideas in a class discussion.</p> <p>Identify three situations which might require different leadership styles. Describe the style you think would be most effective in that situation and why.</p> <p>Create a list of local and state leadership positions. Describe the leadership qualities which you think are particularly important for each position. Share your list in a class discussion.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT B2

Topic	Defining Leadership
Performance Indicator	B. Understand how characteristics, relationships and context interact in leadership roles.
Standard	2. Analyze the complex relationship between the leader and the follower.
SCANS	Resources 4; Information 5; Interpersonal 12; Systems 15; Thinking Skills 12
Show-Me Standards	1.10; 3.5; 4.3; SS6
Objectives	<p>B201 Critically analyze situations in which followers become leaders.</p> <p>B202 Analyze and understand the dynamic relationship between the leader and the follower.</p>
Sample Activities	<p>Read a biography of a national leader. In a report describe the situation that led that person to assume a leadership role and what characteristics made them successful in that role. Present your information to the class.</p> <p>Identify someone at school you consider a leader. Keep a journal for one week in which you enter your observations about positive and negative leadership actions taken by that person. At the end of the week summarize your observations in a short paper submitted to your teacher.</p> <p>Prepare a skit with members of your class which demonstrates the role the leader plays in building or destroying morale among the group. When you perform the skit ask the audience to summarize the main points of the skit.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT B3

Topic	Defining Leadership
Performance Indicator	B. Understand how characteristics, relationships and context interact in leadership roles.
Standard	3. Evaluate the role of context in the process of leadership.
SCANS	Information 7; Interpersonal 14; Systems 16; Thinking Skills 8
Show-Me Standards	1.1; 1.9; 1.10; 4.3; SS2, SS6
Objectives	<p>B301 Analyze the influence of different contexts on leadership, such as gender, ethnicity, political affiliation, religion, and socio-economics.</p> <p>B302 Understand that as contexts change, leaders may become followers, and followers may become leaders.</p> <p>B303 Evaluate the effects of changing situations upon leadership roles in the family, classroom, school, community, state, nation, and world.</p>
Sample Activities	<p>Prepare a poster of famous leadership quotes. Explain the quote and your reason for selecting it in a class presentation.</p> <p>Form teams to conduct a simple leadership exercise. Take turns being the team leader. How did each leader perform differently? How did the leadership change as people learned from the previous leader? Share your ideas in a class discussion.</p> <p>Identify a national issue. In a class discussion describe how that issue is changing the leadership requirements of those who deal with that issue.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT C1

Topic	Developing Leadership Skills and Practices
Performance Indicator	C. Understand the functions of effective leadership.
Standard	1. Communicate effectively in pairs, small groups, teams, and large groups.
SCANS	Resources 4; Interpersonal 9, 12, 13, 14; Basic Skills 9; Personal Qualities 15
Show-Me Standards	2.1; 2.3; 3.5; 3.7; 3.8; 4.6
Objectives	<p>C101 Suspend judgment until all ideas are expressed.</p> <p>C102 Interpret and synthesize ideas.</p> <p>C103 Present personal ideas as well as those of others in a clear, concise, and effective manner.</p> <p>C104 Balance personal expression with others' contributions.</p> <p>C105 Distinguish between fact and opinion.</p> <p>C106 Work toward consensus in heterogeneous groups.</p> <p>C107 Facilitate the mediation of conflict.</p> <p>C108 Motivate team members individually and collectively to collaborate to achieve a common purpose.</p>
Sample Activities	<p>Conduct a panel discussion on an issue of importance in your school. Ask the audience and panel members to critique your skill in leading the discussion.</p> <p>Attend a school board or city council meeting. In a brief report to the class note the role of leadership in conducting the business of the meeting, how members conducted themselves in discussing the issues, and how conflicts were resolved.</p> <p>Describe the difference between a boss and a leader in a written report. Cite examples of both from the workplace and your personal life. How are they the same? How are they different?</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT C2

Topic	Developing Leadership Skills and Practices
Performance Indicator	C. Understand the functions of effective leadership.
Standard	2. Analyze and refine decision-making skills.
SCANS	Interpersonal 9, 12, 13; Systems 16, Thinking Skills 9
Show-Me Standards	3.2; 3.3; 3.7; 3.8; 4.5; SS3
Objectives	<p>C201 Implement, monitor progress toward, and evaluate solutions.</p> <p>C202 Support group decisions.</p> <p>C203 Adjust group decisions according to changes within or outside the group.</p> <p>C204 Refine skills in parliamentary procedure to facilitate meetings or discussions.</p>
Sample Activities	<p>Prepare an agenda and conduct a meeting using basic principles of parliamentary procedure.</p> <p>Create an activity chart for a specific school or work activity. Include activity goal, time lines, person(s) responsible, budget, and how the success of that activity will be evaluated. Share your chart with the class for critique and review. After revisions submit the chart to your teacher.</p> <p>Identify a decision made by your school board which affects you. What factors might change which would cause the school board to reconsider its decision? Share your ideas in a class discussion.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT C3

Topic	Developing Leadership Skills and Practices
Performance Indicator	C. Understand the functions of effective leadership.
Standard	3. Analyze and refine decision-making skills.
SCANS	Interpersonal 9, 12, 13; Systems 16, Thinking Skills 9
Show-Me Standards	3.2; 3.3; 3.7; 3.8; 4.5; SS3
Objectives	<p>C201 Implement, monitor progress toward, and evaluate solutions.</p> <p>C202 Support group decisions.</p> <p>C203 Adjust group decisions according to changes within or outside the group.</p> <p>C204 Refine skills in parliamentary procedure to facilitate meetings or discussions.</p>
Sample Activities	<p>Prepare an agenda and conduct a meeting using basic principles of parliamentary procedure.</p> <p>Create an activity chart for a specific school or work activity. Include activity goal, time lines, person(s) responsible, budget, and how the success of that activity will be evaluated. Share your chart with the class for critique and review. After revisions submit the chart to your teacher.</p> <p>Identify a decision made by your school board which affects you. What factors might change which would cause the school board to reconsider its decision? Share your ideas in a class discussion.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT D1

Topic	Practicing Leadership
Performance Indicator	D. Understand how leadership can be demonstrated at the workplace.
Standard	1. Analyze leadership at the workplace
SCANS	Information 5; Thinking Skills 12
Show-Me Standards	1.2; 1.6; 3.5; 4.3; SS6
Objectives	<p>D101 Identify leadership positions and opportunities at the workplace.</p> <p>D102 Assess the leadership qualities of various leaders at the workplace</p> <p>D103 Identify experience and educational preparation necessary for assuming leadership positions at the workplace</p>
Sample Activities	<p>Prepare an organizational chart for your workplace up to the highest level. Include the name of the person in each position on the chart.</p> <p>Describe the career path for promotion at your workplace. What education and experience is required for each step? Share your information with the class.</p> <p>Create a list of leadership characteristics important for leadership positions at your workplace. Complete the checklist for two formal or informal leaders at your workplace. Describe what they could do to become better leaders in a short report. Submit your checklists and report to your teacher.</p>

Curriculum Standards and Indicators

Leadership and Teamwork – LT D2

Topic	Practicing Leadership
Performance Indicator	D. Understand how leadership can be demonstrated at the workplace.
Standard	2. Practice leadership through CTSO activities.
SCANS	Resources 1, 2, 3, 4; Interpersonal 12; Personal Qualities 13, 17
Show-Me Standards	1.3; 2.3; 3.6; 3.7; 3.8; SS3
Objectives	<p>D201 Evaluate needs within the school, local community, state and nation.</p> <p>D202 Set goals for a CTSO activity.</p> <p>D203 Develop a plan to achieve the established goals for the CTSO activity.</p> <p>D204 Build teamwork among CTSO activity participants.</p> <p>D205 Demonstrate effective decision making.</p> <p>D206 Manage conflict within the CTSO activity.</p>
Sample Activities	<p>Lead a group of younger students in a school or community activity (church group, scouts, mentoring program, etc.) Describe your experiences to the class.</p> <p>Assume leadership for all or part of a CTSO activity. Plan, organize, conduct and evaluate the activity. Describe your leadership successes and areas needing improvement in a brief written report.</p> <p>Analyze a business decision making case study. Prepare your response to include description of the situation, possible solutions, your recommended solution, and the rationale for your recommendation. Present your response to the class.</p>

Curriculum Standards and Indicators

Leadership and Teamwork

Resources

American Experience - Citizen King

<http://www.pbs.org/wgbh/amex/mlk>

American Experience - Fidel Castro

<http://www.pbs.org/wgbh/amex/castro/index.html>

American Experience - The Presidents

<http://www.pbs.org/wgbh/amex/presidents>

American Experience - Woodrow Wilson

<http://www.pbs.org/wgbh/amex/wilson>

American Masters

<http://www.pbs.org/wnet/americanmasters>

American Leaders Speak

<http://memory.loc.gov/ammem/nfhtml/nfhome.html>

This Library of Congress collection houses over fifty sound recordings of speeches by American leaders from 1918-1920.

Ask Eric Education Information

<http://www.askeric.org>

This is a personalized Internet-based service providing information (including lesson plans) to teachers, librarians, counselors, administrators, parents, and anyone interested in education.

CivicQuest. Learning Leadership: A Curriculum Guide for a New Generation, Grades K-12.

College Park, MD: Center for Political Leadership and Participation, 1996.

This work includes a practical classroom guide to the presentation of leadership, including a model high school course "Foundations in Leadership," as well as lessons and activities for teaching leadership in all grades.

Covey, Sean. The 7 Habits of Highly Effective Teens. New York: Simon and Schuster, 1998.

Covey provides a "step-by-step guide to help teens improve self-image, build friendships, resist peer pressure, achieve their goals, get along with parents, and much more."

DECA

www.deca.org

Fiscus, L. Leadership Curriculum Guide: National Leadership Camp. Reston, VA: National Association of Secondary School Principals, 1995.

This guide covers all aspects of developing qualities of leadership in students, with chapters on self-awareness, leadership styles and characteristics, goal-setting, organization, communication, effective meetings, decision-making, group process, conflict resolution, promoting pluralism, evaluation, leadership workshops, and icebreakers.

Hickman, G. R., and A. Creighton-Zollar. Teaching Leadership for a Diverse Society. Richmond, VA: University of Richmond, 1996.

A support for including diversity in an introductory leadership course, this publication presents relevant classroom resources such as readings, videos, exercises, activities, and handouts.

Curriculum Standards and Indicators

Hugh O'Brien Youth Leadership

<http://www.hoby.org>

HOBYS mission is to seek out, recognize, and develop leadership potential commencing with high school sophomores.

Independent Lens - A Touch of Greatness

<http://www.pbs.org/independentlens/touchofgreatness>

Kinlaw, D. Handbook of Leadership Training Activities: 50 One-Hour Designs. New York: McGraw-Hill, 1998

This handbook provides training activities addressing the following ten leadership functions: leading by visioning, leading through commitment, satisfying the customer, coaching, developing human resources, leading teams, managing work processes, managing change, managing projects, and measuring performance.

Linking Leadership to Instruction

A Leadership Development Curriculum for Virginia Public Schools Virginia Board of Education

<http://www.pen.k12.va.us/VDOE/Instruction/leadership/>

MarkEd/Career Paths Resource Center P.O. Box 12279 Columbus, OH 43212-0279800-448-0398

www.mark-ed.com

SkillsUSA VICA. Leadership Handbook. Leesburg, VA: SkillsUSA VICA, 1999. A national handbook for SkillsUSA VICA student organization, this resource includes sections on membership; local chapters and ceremonies; professional development; and constitutions, bylaws, and policies.

Student Leadership Practices Inventory, Student Workbook James M. Kouzes, Barry Z. Posner ISBN: 0-7879-4425-4 Paperback, 32 pages, July 1998, Jossey-Bass

The Student Leadership Institute

<http://www.slinstitute.org>

SLI is a non-profit corporation whose mission is "to nurture a deep understanding of leadership and its responsible application with a commitment to business and community development."

Unforgivable Blackness - The Rise and Fall of Jack Johnson:

<http://www.pbs.org/unforgivableblackness>

What Makes a Good Leader?

<http://www.alumni.hbs.edu/bulletin/2001/february/leader.html>

The Harvard Business School Bulletin published a short article in the February 2001 issue about the qualities of a good leader: integrity, creativity, vision, judgment, communication, knowledge, honesty, passion, and charisma.

Curriculum Standards and Indicators

SAFETY AND HEALTH

Safety

A. Understand the importance of safety in the workplace.

1. Recognize the role of hazards in the workplace.
 - A101 Define the term workplace hazard.
 - A102 Give examples of workplace injuries and illnesses
 - A103 Identify hazards in the workplace.
 - A104 Describe how workplace injury and illnesses can affect workers and employers.

2. Implement a plan for workplace safety.
 - A201 Identify strategies to prevent workplace illnesses or injuries.
 - A202 Describe the advantages and disadvantages of taking risks in the workplace.
 - A203 Describe attitudes that support workplace safety.
 - A204 Develop and evaluate a plan to implement strategies for workplace safety.
 - A205 Communicate safety information effectively.
 - A206 Demonstrate basic first aid techniques, including CPR.

3. Examine the role of laws and regulations for workplace safety.
 - A301 Describe current worker safety laws and regulations.
 - A302 Define the need for worker safety laws and regulations.
 - A303 Analyze how worker safety laws affect workers and employers.
 - A304 Discuss the advantages and disadvantages of worker safety laws and regulations.

4. Apply safety procedures in the workplace.
 - A401 Identify procedures for correcting workplace safety issues.
 - A402 Describe the importance of reporting job related hazards, accidents and injuries to the appropriate person.
 - A403 Identify safety signs found a the workplace and public buildings.
 - A404 Wear safe work attire.
 - A405 Identify safe work procedures.

==== Curriculum Standards and Indicators

Health

B. Understand the importance of healthy living for career success.

1. Define factors leading to a healthy and active life
 - B101 Describe healthy eating patterns
 - B102 Explain the benefits of being physically active.
 - B103 Evaluate factors that affect family health and personal health, including heredity, lifestyles, economics and access to health care.
 - B104 Discuss the effect of emotional and physical health on career decisions.
 - B105 Describe how developmental changes affect physical and mental health B106 Develop a plan for lifelong wellness

2. Utilize health maintenance strategies.
 - B201 Identify community resources for physical, mental and emotional health.
 - B202 Assess risks and consider consequences when making health related decisions.
 - B203 Evaluate the effect of substance abuse policies at the workplace.
 - B204 Identify health care services available in the community and through the workplace.
 - B205 Demonstrate assertive/refusal skills and identify situations in which they should be used.
 - B206 Identify ways to reduce or avoid threatening situations, include assault, robbery, abuse and sexual harassment.
 - B207 Use negotiation and conflict resolution skills.
 - B208 Demonstrate acceptable employee health habits.

Curriculum Standards and Indicators

Safety and Health – SH A1

Topic	Safety
Performance Indicator	A. Understand the importance of safety in the workplace.
Standard	1. Recognize the role of hazards in the workplace.
SCANS	Resources 3; Information 7; Thinking Skills 12
Show-Me Standards	1.8; 2.1; CA3; CA4; HP6
Objectives	A101 Define the term workplace hazard. A102 Give examples of workplace injuries and illnesses A103 Identify hazards in the workplace. A104 Describe how workplace injury and illnesses can affect workers and employers
Sample Activities	Research and prepare a written report on accident and illness rates for 3 different occupational areas. Develop a checklist to be used for safety walkthroughs at your workplace. Share the checklist with your supervisor before submitting to your teachers. Read at least two articles on reducing workplace hazards. Summarize the articles in a short report to the class.

Curriculum Standards and Indicators

Safety and Health – SH A2

Topic	Safety
Performance Indicator	A. Understand the importance of safety in the workplace.
Standard	2. Implement a plan for workplace safety.
SCANS	Resources 1; Systems 17; Basic Skills 6; Thinking Skills 9
Show-Me Standards	1.4; 1.8; 2.1; 3.7; 4.7; HP 5, 7
Objectives	<p>A201 Identify strategies to prevent workplace illnesses or injuries.</p> <p>A202 Describe the advantages and disadvantages of taking risks in the workplace.</p> <p>A203 Describe attitudes that support workplace safety.</p> <p>A204 Develop and evaluate a plan to implement strategies for workplace safety.</p> <p>A205 Communicate safety information effectively.</p> <p>A206 Demonstrate basic first aid techniques, including CPR.</p>
Sample Activities	<p>Draw a hazards map using a diagram of your workplace. Indicate areas with hazards and safety lanes in those areas.</p> <p>Outline a safety presentation you would make to new employees at your workplace. Submit your outline to your supervisor for review. Share your outline in an oral presentation to your class.</p> <p>Arrange for a medical professional to make a presentation to the class on basic first aid procedures typical for workplace situations.</p> <p>Demonstrate appropriate first aid on a simulated workplace injury.</p> <p>Enroll and complete a certified CPR training course.</p>

Curriculum Standards and Indicators

Safety and Health – SH A3

Topic	Safety
Performance Indicator	A. Understand the importance of safety in the workplace.
Standard	3. Examine the role of laws and regulations for workplace safety.
SCANS	Information 7; Thinking Skills 11
Show-Me Standards	1.10; 2.6; 3.1; 4.3; HP6
Objectives	<p>A301 Describe current worker safety laws and regulations.</p> <p>A302 Define the need for worker safety laws and regulations.</p> <p>A303 Analyze how worker safety laws affect workers and employers.</p> <p>A304 Discuss the advantages and disadvantages of worker safety laws and regulations.</p>
Sample Activities	<p>Identify three OSHA regulations which are of most concern for your workplace. Write a brief report of what actions are being taken at your workplace to address these regulations. Submit your report to your teacher.</p> <p>Forms teams to debate the pros and cons of worker safety laws and regulations. Ask class members to summarize the main points made by each team and to pick the winning team.</p> <p>Prepare a list of current worker safety laws and regulations. Indicate the intent of each item, industries affected, and agency which administers the law or regulation.</p>

Curriculum Standards and Indicators

Safety and Health – SH A4

Topic	Safety
Performance Indicator	A. Understand the importance of safety in the workplace.
Standard	4. Apply safety procedures in the workplace.
SCANS	Information 7; Interpersonal 10; Systems 16; Personal Qualities 13
Show-Me Standards	1.2; 1.8; 2.6; 4.3; HP 2, 7
Objectives	<p>A401 Identify procedures for correcting workplace safety issues.</p> <p>A402 Describe the importance of reporting job related hazards, accidents and injuries to the appropriate person.</p> <p>A403 Identify safety signs found at the workplace and public buildings.</p> <p>A404 Wear safe work attire.</p> <p>A405 Identify safe work procedures.</p>
Sample Activities	<p>Prepare a presentation on safety requirement at your workplace, including attire and safety procedures. Submit the outline of your presentation to your teacher. Present your information to the class.</p> <p>Create a poster explaining the most commonly used workplace safety signs.</p> <p>Interview your supervisor to determine the procedures for reporting safety issues at your workplace. Share those procedures during a class discussion on safety issues.</p>

Curriculum Standards and Indicators

Safety and Health – SH B1

Topic	Health
Performance Indicator	B. Understand the importance of healthy living for career success.
Standard	1. Define factors leading to a healthy and active life
SCANS	Information 5; Basic Skills 6; Thinking Skills 9
Show-Me Standards	1.2; 1.6; 1.10; 2.6; 3.2; HP 2, 5, 6
Objectives	<p>B101 Describe healthy eating patterns</p> <p>B102 Explain the benefits of being physically active.</p> <p>B103 Evaluate factors that affect family health and personal health, including heredity, lifestyles, economics and access to health care.</p> <p>B104 Discuss the effect of emotional and physical health on career decisions.</p> <p>B105 Describe how developmental changes affect physical and mental health</p> <p>B106 Develop a plan for lifelong wellness</p>
Sample Activities	<p>Describe how a healthy diet for a construction worker could be different than a healthy diet for a computer technician. Discuss your ideas in class.</p> <p>Review the information on your employer's health plan. Prepare a short written report on the availability, costs, and benefits of the plan.</p> <p>Research the workplace costs of illness and accidents. Prepare a report which includes this information and actions which could be taken by the employer and by employees to reduce those costs.</p>

Curriculum Standards and Indicators

Safety and Health – SH B2

Topic	Health
Performance Indicator	B. Understand the importance of healthy living for career success.
Standard	2. Utilize health maintenance strategies.
SCANS	Information 7; Interpersonal 13; Personal Qualities 13; 16; 17
Show-Me Standards	1.6; 1.10; 2.5; 3.7; 4.3; HP 2, 5, 6, 7
Objectives	<p>B201 Identify community resources for physical, mental and emotional health.</p> <p>B202 Assess risks and consider consequences when making health related decisions.</p> <p>B203 Evaluate the effect of substance abuse policies at the workplace.</p> <p>B204 Identify health care services available in the community and through the workplace.</p> <p>B205 Demonstrate assertive/refusal skills and identify situations in which they should be used.</p> <p>B206 Identify ways to reduce or avoid threatening situations, include assault, robbery, abuse and sexual harassment.</p> <p>B207 Use negotiation and conflict resolution skills.</p> <p>B208 Demonstrate acceptable employee health habits.</p>
Sample Activities	<p>Describe the substance abuse policies at your workplace. Why are they important for the business? Compare your answers with others in a class discussion.</p> <p>Form a team and create a handbook of community health care resources to share with other students in your school.</p> <p>Review workplace policies on threatening situations, including abuse and sexual harassment. Are there potential threatening situations not covered by the policies? What are the penalties for violating the policies? What procedures are in place to report policy violation? Submit your answers in writing and share the information during a class discussion.</p>

Curriculum Standards and Indicators

Safety and Health Resources

Checklist on workplace hazards

<http://www.sasked.gov.sk.ca/docs/paa/career/forms/frm14.html>

Fair Labor Standards Act (FLSA)

<http://www.dol.gov/elaws/esa/flsa/cl/default.htm>

Health & Safety Awareness for Working Teens

<http://depts.washington.edu/worksafe>

The Health and Safety Awareness for Working Teens program strives to reduce workplace injuries and illnesses and their consequences by educating students about workplace health and safety and by promoting an attitude of occupational injury and illness prevention.

Help for Teen Workers: Info for Minors, Parents, Employers and Educators

<http://www.lni.wa.gov/scs/workstandards/teenworker.htm>

Making Sure Your Teen's Job is Safe

http://kidshealth.org/parent/firstaid_safe/travel/job.html

Missouri Department of Labor and Industrial Relations

Division of Labor Standards

<http://www.dolir.mo.gov/ls/index.asp>

NIOSH Safety and Health Topic: Youth Worker Safety and Health

<http://www.cdc.gov/niosh/topics/youth>

Includes info on: Information for Young Workers, w/Young Workers Are Getting Hurt, Programs, Reports, and Research, related Web Sites

Oregon OSHA Audiovisual Library and Resource Center

<http://www.cbs.state.or.us/external/osha/educate/youngworker/curriculum.html>

OSHA's Teen Worker Safety and Health Website

<http://www.osha.gov/SLTC/teenworkers>

Protecting Young Workers: Prohibition Against Young Workers Operating Forklifts

<http://www.osha.gov/dts/shib/shib093003.html>

Safe Work for Youth in Construction - Information for Employers

<http://www.cdc.gov/niosh/docs/2004-113/>

This NIOSH brochure provides recommendations to employers for maintaining a safe work environment for youth on construction sites. The brochure also highlights important laws and regulations and lists prohibited jobs for youth.

Safe Work for Youth in Construction

<http://www.cdc.gov/niosh/docs/2004-113/pdfs/2004-113.pdf>

Starting Safely: Teaching Youth about Workplace Safety and Health

Maine Department of Labor

The course also seeks to raise teens' awareness about their rights and available resources and encourage young workers to be active participants in creating and maintaining safe and healthy work environments. The course includes a curriculum binder, a 10-minute video created by high

Curriculum Standards and Indicators

school students (with follow-up questions included), learning activities with overheads and handouts, and additional resources for program enrichment.

www.state.me.us/labor/bls/StartingSafely.htm

Teen Summer Jobs: Safety Pays

The premier site for teen worker safety and health information provided by the Occupational Safety and Health Administration (OSHA). Our mission is to help you stay healthy and safe while on the job.

<http://www.osha.gov/SLTC/youth/summerjobs/index.html>

Teens, Work, and Safety

Labor Occupational Health Program, University of California
2223 Fulton Street, 4th Floor, Berkeley CA 94720.

The 350 page curriculum covers basic health and safety information that can be used in either an academic or vocational setting. Three teaching units, each 3-5 hours in length, are designed for use in high school English, Science, and U.S. Government classes. There is also a General Unit for use in any class. Each unit contains learning objectives, lesson plans, detailed teacher's instructions, overheads, and student handouts. Units cover both specific job hazards and labor laws. Interactive activities encourage student participation. The course also includes a 12-minute video, "Your Work-Keepin' It Safe" (from UCLA's Labor Occupational Safety and Health Program) 3-5 hour curriculum designed to educate youth about workplace hazards and strategies for preventing work-related illnesses and injuries.

<http://ist-socrates.berkeley.edu/~safejobs/links>

U.S. Department of Labor
Bureau of Labor Statistics

<http://www.bls.gov>

U.S. Department of Labor
Industry Injury and Illness Data

<http://www.bls.gov/iif/oshsum.htm>

U.S. Department of Labor
Occupational Safety & Health Administration

<http://www.osha.gov/as/opa/worker>

Wage and Hour On-Line Publications Order Site, US Dept of Labor

<http://www.osha.gov/pls/epub/wageindex.list>

Young Workers: WorkSafe Centre

<http://youngworker.healthandsafetycentre.org/s/Home>

Youngworkers.org

<http://ist-socrates.berkeley.edu/%7Esafejobs>

You'll find information on workplace rights and responsibilities, work hours and job restrictions, hazards on the job, ways to prevent job injuries and more.

Youth Rules Posters, Stickers, and Bookmarks. US Dept. of Labor.

<http://www.youthrules.dol.gov/posters.htm#Sticker>

Youth Rules!

<http://www.youthrules.dol.gov>

Topics: What Hours Can Youth Work? What Jobs Can Youth Do? Youths in Agriculture, Youth Employment, Safety & Health, State Rules, International, and much more.

Curriculum Standards and Indicators

TECHNICAL KNOWLEDGE AND SKILLS

Career Competency

A. Understand the skills required for success in a specific career.

1. Demonstrate job skills as listed on the training plan or Instructional Management Plan.
 - A101 Perform job skills at a high level of industry standard.
 - A102 Explain requirements for top level rankings on employee evaluations.
 - A103 Exhibit workplace safety practices.
 - A104 Identify problems and develop solutions.
 - A105 Apply relevant math and communications arts skills at the workplace.
 - A106 Identify opportunities to continue learning and advance at the workplace.

2. Demonstrate an understanding of the company's mission and goals.
 - A201 Explain the company's vision and its mission statement.
 - A202 Describe the specific goals and objectives for the company
 - A203 Describe the products and services offered by the company.
 - A204 Identify the authority, rights and responsibilities of both employees and employers at the company.

3. Demonstrate behavior which meets the ethical, legal, and cultural expectations of a specific career.
 - A301 Follow established policies for the workplace.
 - A302 Exhibit behavior which supports workplace diversity.
 - A303 Demonstrate acceptable work habits and conduct at the workplace.
 - A304 Demonstrate appropriate dress and grooming for the workplace.
 - A305 Demonstrate teamwork.
 - A306 Recognize and report signs of substance abuse.
 - A307 Accept and act upon direction and criticisms.
 - A308 Displays loyalty to the company and the workplace.
 - A309 Work professionally and respectfully with co-workers, supervisors, and customers

==== Curriculum Standards and Indicators

4. Maintain records related to employment.
 - A401 Prepare a list of specific job tasks to be performed at your workplace.
 - A402 Maintain a record of employment hours and wages earned.
 - A403 Complete required employment records such as W4, contact information, and other forms required at the workplace.
 - A404 Explain pay procedures, deductions, net pay, and electronic funds transfer.
 - A405 Complete training agreements and other forms required for participation in cooperative education.

Curriculum Standards and Indicators

Technical Knowledge and Skills – TKS A1

Topic	Career Competency
Performance Indicator	A. Understand the skills required for success in a specific career.
Standard	1. Demonstrate job skills as listed on the training plan or Instructional Management Plan.
SCANS	Systems 16, 19; Basic Skills 1-6; Thinking Skills 8,9; Personal Qualities 16
Show-Me Standards	1.10; 2.6; 3.5; 4.5; CA3; MA1
Objectives	<p>A101 Perform job skills at a high level of industry standard.</p> <p>A102 Explain requirements for top level rankings on employee evaluations.</p> <p>A103 Exhibit workplace safety practices.</p> <p>A104 Identify problems and develop solutions.</p> <p>A105 Apply relevant math and communications arts skills at the workplace.</p> <p>A106 Identify opportunities to continue learning and advance at the workplace.</p>
Sample Activities	<p>Prepare a list of specific job duties at your workplace. Submit the list to your supervisor for review and then to your teacher.</p> <p>Conduct an interview with your supervisor about the employee evaluation system. Ask about entry level expectations, how to advance on the rating scale, and how feedback and assistance for your improvement will be provided. Submit a brief paragraph to your teacher describing what you found out.</p> <p>Prepare a sample of mathematical calculations performed at your workplace. Have the class complete and calculations and review them for accuracy.</p> <p>Make a list of required and voluntary training available through your workplace. Describe how this training prepares better workers and the link of training and advancement. Share this information with the class and submit the written report to your teacher.</p>

Curriculum Standards and Indicators

Safety and Health – SH A2

Topic	Career Competency
Performance Indicator	A. Understand the skills required for success in a specific career.
Standard	2. Demonstrate an understanding of the company's mission and goals.
SCANS	Information 7; Systems 15; Thinking Skills 11
Show-Me Standards	1,8I 2,5I 4,8; SS6
Objectives	<p>A201 Explain the company's vision and its mission statement.</p> <p>A202 Describe the specific goals and objectives for the company</p> <p>A203 Describe the products and services offered by the company.</p> <p>A204 Identify the authority, rights and responsibilities of both employees and employers at the company.</p>
Sample Activities	<p>Compare your company's published mission statement with those of two other companies in the same field. How are they the same and how are they different? What advantage does your company have over the others? Write a paragraph describing the comparison.</p> <p>Prepare a presentation outline on the products and/or services your company offers. Include the features and benefits, target market, and sample promotion efforts.</p> <p>Review the annual report for your company. Summarize the report in a class presentation.</p> <p>Prepare an organizational chart for your company. Indicate the specific job responsibilities for each position on the chart. Post the chart in the classroom. Compare charts and responsibilities in a class discussion.</p>

Curriculum Standards and Indicators

Safety and Health – SH A3

Topic	Career Competency
Performance Indicator	A. Understand the skills required for success in a specific career.
Standard	3. Demonstrate behavior which meets the ethical, legal, and cultural expectations of a specific career.
SCANS	Interpersonal 9, 11, 14; Thinking Skills 8, 12; Personal Qualities 13-17
Show-Me Standards	1.5; 2.3; 2.6; 3.6; 4.4; CA6; SS6
Objectives	<p>A301 Follow established policies for the workplace.</p> <p>A302 Exhibit behavior which supports workplace diversity. Demonstrate acceptable work habits and conduct at the workplace.</p> <p>A303 Demonstrate appropriate dress and grooming for the workplace.</p> <p>A304 Demonstrate teamwork.</p> <p>A305 Recognize and report signs of substance abuse.</p> <p>A306 Accept and act upon direction and criticisms.</p> <p>A307 Displays loyalty to the company and the workplace.</p> <p>A308 Work professionally and respectfully with co-workers, supervisors, and customers</p> <p>A309</p>
Sample Activities	<p>Complete an employee evaluation form for yourself. Keep the form in your materials to compare with the actual evaluation you receive from your supervisor. Use both evaluations to improve your job performance.</p> <p>Prepare a role play situation which demonstrates the right way and wrong way to offer criticism to employees. Conduct the role play in class.</p> <p>Read the company policy on workplace diversity. Interview your supervisor about expectations, desired behaviors, and specific areas that have been problems in the past or potential problems. Summarize your findings in a brief written report to your teacher.</p>

Curriculum Standards and Indicators

Safety and Health – SH A4

Topic	Career Competency
Performance Indicator	A. Understand the skills required for success in a specific career.
Standard	4. Maintain records related to employment.
SCANS	Thinking Skills 3, 4, 9; Personal Qualities 13
Show-Me Standards	1.4; 1.8; 2.5
Objectives	<p>A401 Prepare a list of specific job tasks to be performed at your workplace.</p> <p>A402 Maintain a record of employment hours and wages earned.</p> <p>A403 Complete required employment records such as W4, contact information, and other forms required at the workplace.</p> <p>A404 Explain pay procedures, deductions, net pay, and electronic funds transfer.</p> <p>A405 Complete training agreements and other forms required for participation in cooperative education.</p>
Sample Activities	<p>Develop a spreadsheet to keep track of your hours worked and wages earned. Submit your spreadsheet report to your teacher on request.</p> <p>Maintain a file with copies of your training agreement and training plan or instructional management plan, and other documents important for your participation in cooperative education.</p> <p>Prepare a list of your specific job tasks, task you anticipate learning over the year, and tasks you would like to learn at your workplace. Submit your list to your teacher. Update your list periodically with new information.</p> <p>Present the pay procedures at your workplace to the class. In a discussion compare the different procedures, the reasons for the procedures, and benefits/disadvantages of each.</p>

==== Curriculum Standards and Indicators

TECHNICAL KNOWLEDGE AND SKILLS RESOURCES

The resources to support this unit will come primarily from the student's workplace. Company policy manuals, reports, human relations department information, interviews, and employee handbooks will provide much of the needed information. Other company resources available on-line may be of value. Each student's materials will be different. Sharing them in a class setting will be beneficial to all students.

Appendix A – Glossary of Terms

GLOSSARY

Academy Model: Operating as schools-within-schools, academies provide the following three unique components: (1) block rostering, which allows each entering class of students to take core subjects together with the same teachers; (2) long-term relationship with the core teachers, who teach the required core subjects for all academy students every year; and (3) formal business ties which provide the real-world basis for the occupational focus of the academy as well as sources of mentors, internship experiences and potential postsecondary employment opportunities

All Aspects of an Industry: The Vocational Technical Education Regulations and the Perkins Vocational and Technical Education Act require that vocational technical education programs provide students with “strong experience in and understanding of all aspects of the industry students are preparing to enter”. The aspects that are essential are “health & safety skills/competencies”, “technical skills/competencies”, “embedded academic skills/competencies”, “employability skills/competencies”, “planning skills/competencies”, “management skills/competencies”, “finance skills/competencies”, “underlying principles of technology skills/competencies”, and the knowledge of “labor relations issues”, “community issues”, and “environmental issues” related to a particular occupation.

Apprentice: A worker who is at least 16 years of age, except where a higher minimum age standard is otherwise fixed by law, who is employed to learn a skilled trade under standards of apprenticeship fulfilling the requirements of the *United States Department of Labor, Labor Standards for the Registration of Apprenticeship Programs* (Title 29 CFR Part 29) and the *Equal Employment Opportunity in Apprenticeship and Training Act* (Title 29 CFR Part 30).

Apprenticeship program: A plan containing all terms and conditions for the qualification, recruitment, selection, employment and training of apprentices, including such matters as the requirement for a written apprenticeship agreement in conformance with the United States Department of Labor, Labor Standards for the Registration of Apprenticeship Programs, (Title 29 CFR Part 29) and the Equal Employment Opportunity in Apprenticeship and Training Act (Title 29 CFR Part 30).

Articulation Agreement: A written agreement or a system-wide written policy which links two or more educational systems to help students make a smooth transition from one level to another without experiencing delays, duplication of courses, or loss of credits. It serves as a vehicle for high school students to earn postsecondary credit while enrolled in high school or upon entering postsecondary study.

Appendix A – Glossary of Terms

Block scheduling: A means of circumventing the time constraints of a single class period. The traditional school day is typically divided into six or seven classes that each last from forty-five to fifty-five minutes. With few exceptions, classroom instruction begins and ends within the allotted time period. Blocked courses may be scheduled for two or more continuous class periods or days to allow students greater time for laboratory or project-centered work, field trips or work-based learning and special assemblies or speakers. Moreover, block scheduling reduces the instruction time lost in passing between.

Business/industry relationships: Connections between educational entities and local business/industry organizations for the purpose of meeting the needs of the students and employers as customers of the educational process.

Career Academy: A high school program in which a group of students are scheduled with the same core group of teachers for two, three, or four years. The curriculum organizes academic subjects around an industry or occupational theme—for example, health, finance, computers, media—and enables students to fulfill the requirements for college entrance in addition to acquiring work-related knowledge and skill.

Career and Technical Education (Vocational Education): A public education program providing educational experiences that enhance the vocational development processes of exploring, establishing and maintaining oneself in worker, family member and citizen roles. One of its unique contributions is the development of occupational competencies.

Career and Technical Student Organizations (CTSO): Career and technical student organizations are for individuals enrolled in vocational education programs which engage in activities as an integral part of the instructional program. Such organizations must have state and national units which aggregate the work and purposes of instruction in career and technical education at the local level; DECA, FBLA, FCCLA, FFA, HOSA and SkillsUSA.

Career awareness and exploration: Instruction and programs that assist students to clarify career goals, explore career possibilities, develop employability skills, and make the transition from school to work and/or postsecondary education.

Career Clusters: A broad group of career areas that represent a scope of employment which involves grouping occupations from one or more industries that share common skill requirements. Career clusters provide a means of organizing the thousands of career choices for implementation in the school curriculum.

Career development: A comprehensive, competency-based developmental program designed to assist students in making and implementing informed

Appendix A – Glossary of Terms

educational and occupational choices. The competencies, identified in the National Career Development Guidelines, focus on the areas of self-knowledge, education, occupational exploration, and career planning. Programs include competency-based activities and services that emphasize knowledge, skills, and abilities that enable the learner to identify various aspects of occupational careers; use critical-thinking skills to make meaningful occupational choices; qualify for entry to occupational education programs. The basic skills and abilities the individual should master in order to deal successfully with daily life and career development tasks in a technological society are introduced and developed. This includes, but is not limited to, problem solving, decision making, balancing work and life, evaluation of one's uniqueness, and acquiring basic knowledge of different occupations.

Career guidance and counseling: Programs that pertain to the body of subject matter and related techniques and methods organized for the development in individuals of career awareness, career planning, career decision making, placement skills and knowledge and understanding of local, state and national occupational, education and labor market needs, trends and opportunities; assist individuals in making and implementing informed educational and occupational choices; aid students in developing career options with attention to surmounting gender, race, ethnic, disability, language or socioeconomic impediments to career options and encouraging careers in nontraditional employment.

Career Major: A coherent sequence of courses or field of study that prepares a student for a first job and that: integrates academic and occupational learning, integrates school-based and work-based learning, establishes linkages between secondary schools and post secondary institutions; prepares the student for employment in a broad occupational cluster or industry sector; typically includes at least two years of secondary education and at least one or two years of post secondary education; • provides the students, to the extent practicable, with strong experience in and understanding of *all aspects of the industry* the students are planning to enter; results in the *award* of a high school diploma or its equivalent; such as a general equivalency diploma (GED) or alternative diploma or certificate for students with disabilities for whom such alternative diploma or certificate is appropriate; *and* a certificate or diploma recognizing successful completion of one or two years of post secondary education (if appropriate), *and* a skill certificate; and may lead to further education and training, such as entry into a registered apprenticeship program, or may lead to admission to a two- or four- year college or university.

Career Plan: A career plan is a comprehensive, formalized written plan (that students use alone or with the help of others) that relates learning to career goals. The plan is based on both formal and informal assessments and should include areas in which a student needs to increase knowledge and skills to reach goals. A career plan is designed to facilitate transition from high school to

Appendix A – Glossary of Terms

employment and future learning. It can be thought of as both an instrument and a process for monitoring one's career development. As an instrument, a plan provides a place to organize and record progress related to personal, educational, and career and labor market information. As a process, it encourages learners to use the past and present in goal setting and planning. In either case, a career plan should be revisited and modified periodically.

Career portfolio: A carefully selected collection of information that demonstrates a student's talents, interests, abilities, achievements and experiences. It documents the development of education/career goals and one's successful transition from school-to-work.

Career preparation: Involves high school students in selecting a career major for study. During this time, the student is acquiring the academic and occupational skills and knowledge for entry-level employment and/or admission to postsecondary training. The acquiring of skills occurs in contextual and applied-learning settings. Through the process, a skills certificate must be developed for each student indicating the general workplace and/or specific occupational skills to be achieved. Support services are provided for those who need them. The student continues to evaluate the career plan and is allowed to make the necessary changes based on individual needs.

CIE: Cooperative Industrial Education. A Career and Technical Education program designed to prepare students for entry level employment in the trades and industry area. CIE has been replaced by the Cooperative Career Education program.

COE: Cooperative Occupational Education. A Career and Technical Education program designed to prepare students for entry level employment in a wide variety of career areas. The term COE is also used to refer to any cooperative education activity in any program area. COE has been replaced by the Cooperative Career Education program.

Community-based organizations (CBOs): Private nonprofit organizations which are representative of communities or significant segments of communities and which provide job-training services.

Company: The organization which employs the student in a Cooperative Career Education program.

Competency: A skill, an attitude, and/or a knowledge needed by an individual to master an occupation.

Competency List: The list of skills to be acquired by students.

Appendix A – Glossary of Terms

Connecting Activities: Activities which support both school-based and work-based learning outlined in the School to Work Opportunities Act of 1992. employer recruitment/mentor training, staff/professional development, strategies to serve all youth, job search assistance for graduates, school site mentors, post-graduation follow-up services, and program evaluation.

Consortium: A group of two or more school districts, employers, and other partners which is organized around the common goal of establishing a work-based learning system in the community.

Consortium for Entrepreneurship Education: A national membership organization for leaders advocating entrepreneurship education, composed of national, state and local education agencies and organizations. www.entre-ed.org

Contextual learning: Instruction that imparts knowledge within the context in which it will later be used. Linking abstract concepts with real-life problems, contextual learning enables students to personally test and prove academic theories via tangible, real-world applications. Stressing the development of authentic problem-solving skills, contextual learning is designed to blend the teaching of skills and knowledge in a specific industry or occupational area.

Cooperative Career Education (CCE): A career and technical education program for high school juniors and seniors. The program focuses on developing occupational skills which are transferable to a variety of career areas through the use of alternating classroom instruction and on the job training supervised by both the school and the cooperating business.

Cooperative Education: Cooperative education: a program of vocational technical education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational technical instruction, by the alternation of study in school with a job in any occupational field. Such instruction shall be planned and supervised by the school and the employer so that each contributes to the student's education and employability. Work periods and school attendance may be on alternate half-days, full days, weeks or other coordinated periods of time.

Cooperative Education: per Perkins Vocational and Technical Education Act of 1988 Public Law 105-332 Section 3 (6) The term 'cooperative education' means a method of instruction of education for individuals who, through written cooperative arrangements between a school and employers, receive instruction, including required academic courses and related vocational and technical education instruction, by alternation of study in school with a job in any occupational field, which alternation shall be planned and supervised by the school and employer so that each contributes to the education and employability

Appendix A – Glossary of Terms

of the individual, and may include an arrangement in which work periods and school attendance may be on alternate half days, full days, weeks, or other periods of time in fulfilling the cooperative program.

Cooperative Education: per The Code of Federal Regulations Title 29 (CFR 29) Part 570.50 (c) (1) (2) defines student learners: "(1) The student-learner is enrolled in a course of study and training in a cooperative vocational training program under a recognized State or local educational authority or in a course of study in a substantially similar program conducted by a private school and; (2) Such student-learner is employed under a written agreement which provides: (i) That the work of the student-learner in the occupations declared particularly hazardous shall be incidental to his training; (ii) That such work shall be intermittent and for short periods of time, and under the direct and close supervision of a qualified and experienced person; (iii) That safety instructions shall be given by the school and correlated by the employer with on-the-job training; and (iv) That a schedule of organized and progressive work processes to be performed on the job shall have been prepared. Each such written agreement shall contain the name of student-learner, and shall be signed by the employer and the school coordinator or principal. Copies of each agreement shall be kept on file by both the school and the employer. This exemption for the employment of student-learners may be revoked in any individual situation where it is found that reasonable precautions have not been observed for the safety of minors employed there under. A high school graduate may be employed in an occupation in which he has completed training as provided in this paragraph as a student learner, even though he is not yet 18 years of age."

Curriculum Guide Sheet: A part of this project which displays on one page the unit title, topic, performance indicator, standard and objectives along with cross walks to SCANS and the Show-Me Standards. Also included on this page are suggested activities to support a variety of instructional strategies and assessment.

DECA: An association of Marketing Students. The national career-technical organization for secondary and post-secondary student who are enrolled in marketing education programs.

DESE: The Missouri Department of Elementary and Secondary Education. The state agency responsible for K-12 and Career and Technical Education.

Dual Enrollment/Articulated Credit: A program of study allowing high school students to earn credits simultaneously toward a high school diploma and a postsecondary degree or certificate. Written agreements formalize programs of study, the transfer of academic and career and technical education credits among institutions, and the role of secondary and postsecondary instructors.

Appendix A – Glossary of Terms

Employability Skills/Competencies: Those “non-academic”, “non-technical” skills/competencies that are favored by most employers for hiring purposes and include such skills as reporting to work on time, time management, teamwork, following directions, politeness, customer service, etc.

Employer: Public and private employers providing work-based learning experiences for students.

Entrepreneurship: Involves the recognition of opportunities (needs, wants, problems, and challenges) and the use of resources to implement innovative ideas for new, thoughtfully planned ventures.

Extended Contract: A period of employment beyond the regular school term during which the teacher devotes time to instruction, workplace visits, job development, and/or development of curriculum.

Externship: Externships refer to a temporary position “outside” or external to one’s area, with the intent of gaining new and valuable experiences that could be used in one’s job. For example: a teacher externs from their teaching position as a chemistry teacher, to work at a biotechnical facility. This externship provides her/him with valuable knowledge and experience in the industry that can be utilized when teaching.

FBLA: Future Business Leaders of America. The national career-technical organization for students enrolled in secondary business education.

FCCLA: Family, Career and Community Leaders of America. The national career-technical organization for junior and senior high school students enrolled in family and consumer sciences occupations education.

FFA: A national career-technical organization for secondary and postsecondary students enrolled in agricultural education programs.

Field Experience: Field experience is an opportunity for a student to explore and learn more about a career or occupation through business/industry based experiences. These are unpaid and exploratory in nature. Field experience could include activities such as job shadowing, company visits and tours, work based projects, and other events that involve the student in learning activities at a place of business.

Industry Skill Standards: National voluntary industry skill standards which include content from multiple disciplines which define what productive workers in an occupational cluster or industry sector need to know and be able to do.

Industry-Based Certification: A portable, recognized credential (tangible evidence) that validates an individual has successfully demonstrated skill

Appendix A – Glossary of Terms

competencies in a core set of content and performance standards in a specific set of work-related tasks, single occupational area, or a cluster of related occupational areas.

Instructional Management Plan: A written plan of activities directed by the teacher-coordinator and completed by the student. The plan links the classroom instruction to skills and knowledge developed at the workplace. The Instructional Management Plan is an alternative to the Training Plan, and is part of the evaluation process for determining grades and credit for the cooperative education program.

Integrated and Applied Curriculum: The integration of academic and occupational education by designing curriculum which brings together related concepts, generalizations, contents and /or processes, combined with techniques that provide students with the opportunity to apply knowledge and skills through authentic tasks.

Internship: An internship is generally an unpaid learning experience in a workplace in which structured learning occurs related to the student's program of study. The internship is graded, part of a credit granting course or program, and has an evaluation component.

Job Shadowing: Typically a part of career exploration activities in late middle and early high school. A student follows an employee at a firm for one or more days to learn about a particular occupation or industry.

Mark Ed Resource Center: Non-profit consortium of states providing all levels of current curriculum materials for career and technical education teachers.
www.mark-ed.com.

Mentor Training: Training for workplace mentors which includes a review of the role and responsibilities of a workplace mentor; supervision techniques and teaching methodologies appropriate for adolescents; integrating work-based and school-based learning; and student performance evaluation techniques.

Mentoring: Pairing a student with an individual over an extended period of time during which the individual helps the student master certain skills and knowledge the individual possesses, models workplace behavior, challenges the student to perform well and assesses the student's performance. Mentoring may be combined with other work-based learning activities, such as internships or on-the-job training.

MCE: Marketing and Cooperative Education. The program in the Division of Career Education at DESE which provides support for programs in Marketing Education and Cooperative Career Education.

Appendix A – Glossary of Terms

MOACTE: Missouri Association for Career and Technical Education. The professional organization for those concerned with the future of Career and Technical Education in Missouri. It is a state affiliate of the national Association for Career and Technical Education.

Objective: A statement of a teachable skill or knowledge derived from a Standard and Performance Indicator. An objective is used to build lesson plans, select instructional strategies, and develop assessments.

Performance Indicator: A statement of a broad understanding needed by individuals to be successful in careers. A performance indicator is used to set parameters for curriculum content.

Post Secondary Educational Institution: An institution legally authorized to provide post secondary education within a state,

Professional Development: Providing training and/or orientation to teachers, counselors, administrators, workplace mentors, work based learning coordinators, and others on any or all aspects of the work-based learning system in order to provide skills and knowledge necessary to successfully implement the system components.

Project-based learning: A method of instruction that offers learners totally integrated work and learning experiences developed around the completion of finite projects that produce tangible results. SCANS skills, academic content, and knowledge permeate the projects. Learners use research, critical thinking, and problem-solving skills to implement the projects. Supervisors and teachers shift away from telling learners what to do and let learners take on the role of overseer.

Rubric: A rubric is a scoring guide that describes criteria for student performance and differentiates among different levels of performance within those criteria.

Sample Activity

SCANS: The Secretary's Commission on Achieving Necessary Skills (SCANS) was convened in February 1990 to examine the demands of the workplace and to determine whether the current and future workforce is capable of meeting those demands.

School-based Enterprise: An enterprise in which goods or services are produced by students as part of their school program. School-sponsored enterprises typically involve students in the management of a project that may involve the sale of goods for use by others.

Appendix A – Glossary of Terms

School-based Learning: A component of the School to Work Opportunities Act which includes: assessment of student's academic and work readiness skills, which is integrated with career planning; career awareness and exploration and counseling for all students (beginning no later than the 7th grade); selection by students of a career major no later than the beginning of the 11th grade; curriculum articulation with post secondary education (technical and university); the use of integrated and applied curriculum in a work-based learning context; coordination with community services, as needed, to support all student populations in the work based learning activities; and data collection and program evaluation.

School-sponsored enterprise: The production of goods or services by students for sale to or use by others. School-sponsored enterprises typically involve students in the management of the project. Enterprises may be undertaken on or off the school.

Service learning: A method in which youth develop through active participation in organized service that is conducted in and meets the needs of a community; that is coordinated with a community service program; that helps foster civic responsibility; that is integrated into and enhances the educational components of the community-service program in which the participants are enrolled; and that provides structured time for the participants to reflect on the service experiences.

Show-Me Standards: A set of 73 rigorous standards intended to define what students should know and be able to do by the time they graduate from Missouri's public high schools. The standards are organized into 4 goals areas and the content areas of Communications Arts, Fine Arts, Health and PE, Math, Science and Social Studies.

Skill Certificate: A portable, industry-recognized credential that certifies that a student has mastered skills at levels that are at least as challenging as skill standards endorsed by the National Skill Standards Board established under the National Skill Standards Act of 1994. Except that until such skill standards are developed, the term "skill certificate" means a credential issued under a process described in the approved Carl Perkins State plan.

Skills USA: A national career-technical organization for secondary and postsecondary students enrolled in trade and industrial occupation programs.

Standard: A statement of workplace expectations or duties within a broad area of understanding. Standards are derived from performance indicators. Standards define the curriculum content. Specific instructional objectives are based on standards.

Structured learning experience: Supervised student co-curricular or extracurricular activities, school-based enterprises, volunteer or paid

Appendix A – Glossary of Terms

employment, apprenticeship programs, or community service within educational programs.

System: A system is a group of interacting, interrelated, or interdependent elements that together form a complex whole. All the parts of the system are related to the same overall process, procedure, or structure, yet they are (most likely) all different from one another and often perform completely different functions (Kauffman 1980).

Teacher Coordinator: A properly certificated member of the school staff responsible for administering the school program and resolving any problems that arise between the school-based and work-based activities of the cooperative education student. The teacher coordinator acts as liaison between the school and employers in methods of cooperative education.

Technology: The development and application of [tools](#), [machines](#), [materials](#) and [processes](#) that help to solve human problems

Training Agreement: A written document clarifying the specific responsibilities of the student-learner, the training sponsor, the parents, the teacher-coordinator and the school for a cooperative education program.

Training Plan: A step-by-step procedure listing what the student-learner is to study in school and on the job.

Training sponsor: An experience employee, supervisor, or manager who is directly responsible for the occupational learning experiences of the student-learner on the job.

Work-based Learning: A component of the Career and Technical Education initiative includes: youth apprenticeship programs; skill-based school-supervised work experience; such as, cooperative education, local work experience, or supported employment which is based on state and/or national skill standards; volunteer work in the community, which relates to a student's career major; workplace mentoring; instruction in general workplace competencies, including instruction and activities related to developing positive work attitudes, and employability and participative skills; and data collection and program evaluation; programs linked to postsecondary and national standards.

Workplace: The place of employment. In this document the term is used to indicate the student's training station as part of the cooperative career education program.

Workplace Mentor: An employee or other individual, approved by the employer at a workplace, who possesses the skills and knowledge to be mastered by a student and who instructs the student, critiques the performance of the student,

Appendix A – Glossary of Terms

guides the student to perform well, and works in consultation with classroom teachers and the employer of the student.

Work-Readiness Assessment: The process of assessing a student's readiness for a workplace assignment and/or a paid job may include an assessment of any work experiences to date, ability to work with others, knowledge of job application and interviewing techniques, ability to accept work-related supervision, and any other basic work skills deemed necessary to be successful in a job setting.

Appendix B – SCANS Competencies

SCANS COMPETENCIES AND FOUNDATIONS

COMPETENCIES

Resources

1. **Allocates Time** — Selects relevant, goal-related activities; ranks them in order of importance; allocates time to activities; and understands, prepares and follows schedules. Competent performance in allocating time includes properly identifying tasks to be completed; ranking tasks in order of importance; developing and following an effective, workable schedule based on accurate estimates of such things as importance of tasks, time to complete tasks, time available for completion and task deadlines; avoiding wasting time; and accurately evaluating and adjusting a schedule.
2. **Allocates Money** — Uses or prepares budgets, including making cost and revenue forecasts, keeps detailed records to track budget performance and makes appropriate adjustments. Competent performance in allocating money includes accurately preparing and using a budget according to a consistent and orderly accounting method; accurately calculating future budgetary needs based on projected costs and revenues; accurately tracking the extent to which actual costs and revenues differ from the estimated budget; and taking appropriate and effective actions.
3. **Allocates Material and Facility Resources** — Acquires, stores and distributes materials, supplies, parts, equipment, space or final products in order to make the best use of them. Competent performance in allocating material and facility resources includes carefully planning the steps involved in the acquisition, storage and distribution of resources; safely and efficiently acquiring, transporting or storing them; maintaining them in good condition; and distributing them to the end user.
4. **Allocates Human Resources** — Assesses knowledge and skills and distributes work accordingly, evaluates performance and provides feedback. Competent performance in allocating human resources includes accurately assessing peoples' knowledge, skills, abilities and potential; identifying present and future workload; making effective matches between individual talents and workload; and actively monitoring performance and providing feedback.

Information

5. **Acquires and Evaluates Information** — Identifies need for data, obtains them from existing sources or creates them and evaluates their relevance

Appendix B – SCANS Competencies

and accuracy. Competently performing the tasks of acquiring data and evaluating information includes analytic questions to determine specific information needs; selecting possible information and evaluating its appropriateness; and determining when new information must be created.

6. **Organizes and Maintains Information** — Organizes, processes and maintains written or computerized records and other forms of information in a systematic fashion. Competently performing the tasks of organizing and maintaining information includes understanding and organizing information from computer, visual, oral and physical sources in readily accessible formats, such as computerized data bases, spreadsheets, microfiche, video disks, paper files, etc.; when necessary, transforming data into different formats in order to organize them by the application of various methods such as sorting, classifying or more formal methods.
- 7 **Interprets and Communicates Information** — Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial or multi-media methods. Competently performing the tasks of communicating and interpreting information to others includes determining information to be communicated; identifying the best methods to present information (e.g., overheads, handouts); if necessary, converting to desired format and conveying information to others through a variety of means including oral presentation, written communication, etc.
8. **Uses Computers to Process Information** — Employs computers to acquire, organize, analyze and communicate information. Competently using computers to process information includes entering, modifying, retrieving, storing and verifying data and other information; choosing format for display (e.g., line graphs, bar graphs, tables, pie charts, narrative); and ensuring the accurate conversion of information into the chosen format.

Interpersonal

9. **Participates as a Member of a Team** — Works cooperatively with others and contributes to group with ideas, suggestions and effort. Demonstrating competence in participating as a member of a team includes doing own share of tasks necessary to complete a project; encouraging team members by listening and responding appropriately to their contributions; building on individual team members' strengths; resolving differences for the benefit of the team; taking personal responsibility for accomplishing goals; and responsibly challenging existing procedures, policies or authorities.
10. **Teaches Others** — Helps others learn. Demonstrating competence in teaching others includes helping others to apply related concepts and theories to tasks through coaching or other means; identifying training

Appendix B – SCANS Competencies

needs; conveying job information to allow others to see its applicability and relevance to tasks; and assessing performance and providing constructive feedback/reinforcement.

11. **Serves Clients/Customers** — Works and communicates with clients and customers to satisfy their expectations. Demonstrating competence in serving clients and customers includes actively listening to customers to avoid misunderstandings and identifying needs; communicating in a positive manner especially when handling complaints or conflict; and efficiently obtaining additional resources to satisfy client needs.
12. **Exercises Leadership** — Communicates thoughts, feelings and ideas to justify a position; encourages, persuades, convinces or otherwise motivates an individual or groups, including responsibly challenging existing procedures, policies or authority. Demonstrating competence in exercising leadership includes making positive use of the rules/values followed by others; justifying a position logically and appropriately; establishing credibility through competence and integrity; and taking minority viewpoints into consideration.
13. **Negotiates to Arrive at a Decision** — Works toward an agreement that may involve exchanging specific resources or resolving divergent interests. Demonstrating competence in negotiating to arrive at a decision involves researching opposition and the history of the conflict; setting realistic and attainable goals; presenting facts and arguments; listening to and reflecting on what has been said; clarifying problems and resolving conflicts; adjusting quickly to new facts/ideas; proposing and examining possible options; and making reasonable compromises.
14. **Works with Cultural Diversity** — Works well with men and women and with a variety of ethnic, social or educational backgrounds. Demonstrating competence in working with cultural diversity involves understanding one's own culture and those of others and how they differ; respecting the rights of others while helping them make cultural adjustments where necessary; basing impressions on individual performance, not on stereotypes; and understanding concerns of members of other ethnic and gender groups.

Systems

15. **Understands Systems** — Knows how social, organizational and technological systems work and operates effectively within them. Demonstrating competence in understanding systems involves knowing how a system's structures relate to goals; responding to the demands of the system/ organization; knowing the right people to ask for information and where to get resources; and functioning within the formal and informal codes of the social/organizational system.

Appendix B – SCANS Competencies

- 16. Monitors and Corrects Performance** — Distinguishes trends, predicts impact of actions on system operations, diagnoses deviations in the function of a system/organization and takes necessary action to correct performance. Demonstrating competence in monitoring and correcting performance includes identifying trends and gathering needed information about how the system is intended to function; detecting deviations from system's intended purpose; troubleshooting the system; and making changes to the system to rectify system functioning and to ensure quality of product.
- 17. Improves and Designs Systems** — Makes suggestions to modify existing systems to improve products or services and develops new or alternative systems. Demonstrating competence in improving or designing systems involves making suggestions for improving the functioning of the system/organization; recommending alternative system designs based on relevant feedback; and responsibly challenging the status quo to benefit the larger system.
- 18. Selects Technology** — Judges which set of procedures, tools or machines, including computers and their programs, will produce the desired results. Demonstrating competence in selecting technology includes determining desired outcomes and applicable constraints; visualizing the necessary methods and applicable technology; evaluating specifications; and judging which machine or tool will produce the desired results.
- 19. Applies Technology to Task** — Understands the overall intent and the proper procedures for setting up and operating machines, including computers and their programming systems. Demonstrating competence in how to apply technology to task includes understanding how different parts of machines interact and how machines interact with broader production systems; on occasion installing machines including computers; setting up machines or systems of machines efficiently to get desired results; accurately interpreting machine output; and detecting errors from program output.
- 20. Maintains and Troubleshoots Technology** — Prevents, identifies or solves problems in machines, computers and other technologies. Demonstrating competence in maintaining and troubleshooting technology includes identifying, understanding and performing routine preventative maintenance and service on technology; detecting more serious problems; generating workable solutions to correct deviations; and recognizing when to get additional help.

Appendix B – SCANS Competencies

FOUNDATION SKILLS

Basic Skills

- 1. Reading** — Locates, understands and interprets written information in prose and documents—including manuals, graphs and schedules—to perform tasks; learns from text by determining the main idea or essential message; identifies relevant details, facts and specifications; infers or locates the meaning of unknown or technical vocabulary; judges the accuracy, appropriateness, style and plausibility of reports, proposals or theories of other writers.
- 2. Writing** — Communicates thoughts, ideas, information and messages in writing; records information completely and accurately; composes and creates documents such as letters, directions, manuals, reports, proposals, graphs, flow-charts; uses language, style, organization and format appropriate to the subject matter, purpose and audience; includes supporting documentation and attends to level of detail; and checks, edits and revises for correct information, appropriate emphasis, form, grammar, spelling and punctuation.
- 3. Arithmetic** — Performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical situations; makes reasonable estimates of arithmetic results without a calculator; and uses tables, graphs, diagrams and charts to obtain or convey quantitative information.
- 4. Mathematics** — Computational skills needed in maintaining records, estimating results, using spreadsheets or applying statistical process.
- 5. Listening** — Receives, attends to, interprets and responds to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend, to learn, to critically evaluate, to appreciate or to support the speaker.
- 6. Speaking** — Organizes ideas and communicates oral messages appropriate to listeners and situations; participates in conversation, discussion and group presentations; selects an appropriate medium for conveying a message; uses verbal language and other cues such as body language appropriate in style, tone and level of complexity to the audience and the occasion; speaks clearly and communicates a message; understands and responds to listener feedback; and asks questions when needed.

Appendix B – SCANS Competencies

Thinking Skills

7. **Creative Thinking** — Uses imagination freely, combines ideas or information in new ways, makes connections between seemingly unrelated ideas and reshapes goals in ways that reveal new possibilities.
8. **Decision Making** — Specifies goals and constraints, generates alternatives, considers risks and evaluates and chooses best alternative.
9. **Problem Solving** — Recognizes that a problem exists (i.e., there is a discrepancy between what is and what should or could be); identifies possible reasons for the discrepancy; devises and implements a plan of action to resolve it; evaluates and monitors progress; and revises plan as indicated by findings.
10. **Seeing Things in the Mind's Eye** — Organizes and processes symbols, pictures, graphs, objects or other information; for example, sees a building from a blueprint; a system's operation from schematics; the flow of work activities from narrative descriptions; or the taste of food from reading a recipe.
11. **Knowing How to Learn** — Uses efficient learning techniques to acquire and apply new knowledge and skills.
12. **Reasoning** — Discovers a rule or principle underlying the relationship between two or more objects and applies it in solving a problem.

Personal Qualities

13. **Responsibility** — Exerts a high level of effort and perseverance toward goal attainment; works hard to become excellent at doing tasks by setting high standards, paying attention to details, working well and displaying a high level of concentration even when assigned an unpleasant task; and displays high standards of attendance, punctuality, enthusiasm, vitality and optimism in approaching and completing tasks.
14. **Self-Esteem** — Believes in own self-worth and maintains a positive view of self.
15. **Social** — Demonstrates understanding, friendliness, adaptability, empathy and politeness in new and on-going group settings; asserts self in familiar and unfamiliar social situations; relates well to others; responds appropriately as the situation requires; and takes an interest in what others say and do.
16. **Self-Management** — Assesses own knowledge, skills and abilities accurately; sets well-defined and realistic personal goals; monitors progress

=====**Appendix B – SCANS Competencies**

toward goal attainment and motivates self through goal achievement; exhibits self-control and responds to feedback unemotionally and non-defensively; and is a "self-starter."

17. Integrity/Honesty — Chooses ethical courses of action.

Appendix C – Show-Me Standards

MISSOURI SHOW-ME STANDARDS

Performance Standards

GOAL 1

Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.

Students will demonstrate within and integrate across all content areas the ability to:

1. develop questions and ideas to initiate and refine research
2. conduct research to answer questions and evaluate information and ideas
3. design and conduct field and laboratory investigations to study nature and society
4. use technological tools and other resources to locate, select and organize information
5. comprehend and evaluate written, visual and oral presentations and works
6. discover and evaluate patterns and relationships in information, ideas and structures
7. evaluate the accuracy of information and the reliability of its sources
8. organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation
9. identify, analyze and compare the institutions, traditions and art forms of past and present societies
10. apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers

GOAL 2

Students in Missouri public schools will acquire the knowledge and skills to communicate effectively within and beyond the classroom.

Students will demonstrate within and integrate across all content areas the ability to:

1. plan and make written, oral and visual presentations for a variety of purposes and audiences
2. review and revise communications to improve accuracy and clarity
3. exchange information, questions and ideas while recognizing the perspectives of others

Appendix C – Show-Me Standards

4. present perceptions and ideas regarding works of the arts, humanities and sciences
5. perform or produce works in the fine and practical arts
6. apply communication techniques to the job search and to the workplace
7. use technological tools to exchange information and ideas

GOAL 3

Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.

Students will demonstrate within and integrate across all content areas the ability to:

1. identify problems and define their scope and elements
2. develop and apply strategies based on ways others have prevented or solved problems
3. develop and apply strategies based on one's own experience in preventing or solving problems
4. evaluate the processes used in recognizing and solving problems
5. reason inductively from a set of specific facts and deductively from general premises
6. examine problems and proposed solutions from multiple perspectives
7. evaluate the extent to which a strategy addresses the problem
8. assess costs, benefits and other consequences of proposed solutions

GOAL 4

Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.

Students will demonstrate within and integrate across all content areas the ability to

1. explain reasoning and identify information used to support decisions
2. understand and apply the rights and responsibilities of citizenship in Missouri and the United States
3. analyze the duties and responsibilities of individuals in societies
4. recognize and practice honesty and integrity in academic work and in the workplace
5. develop, monitor and revise plans of action to meet deadlines and accomplish goals
6. identify tasks that require a coordinated effort and work with others to complete those tasks

Appendix C – Show-Me Standards

7. identify and apply practices that preserve and enhance the safety and health of self and others
8. explore, prepare for and seek educational and job opportunities

Knowledge Standards

Communication Arts

In Communication Arts, students in Missouri public schools will acquire a solid foundation which includes knowledge of and proficiency in

1. speaking and writing standard English (including grammar, usage, punctuation, spelling, capitalization)
2. reading and evaluating fiction, poetry and drama
3. reading and evaluating nonfiction works and material (such as biographies, newspapers, technical manuals)
4. writing formally (such as reports, narratives, essays) and informally (such as outlines, notes)
5. comprehending and evaluating the content and artistic aspects of oral and visual presentations (such as story-telling, debates, lectures, multi-media productions)
6. participating in formal and informal presentations and discussions of issues and ideas
7. identifying and evaluating relationships between language and culture

Fine Arts

In Fine Arts, students in Missouri public schools will acquire a solid foundation which includes knowledge of

1. process and techniques for the production, exhibition or performance of one or more of the visual or performed arts
2. the principles and elements of different art forms
3. the vocabulary to explain perceptions about and evaluations of works in dance, music, theater and visual arts
4. interrelationships of visual and performing arts and the relationships of the arts to other disciplines
5. visual and performing arts in historical and cultural contexts

Appendix C – Show-Me Standards

Health/Physical Education

In Health/Physical Education, students in Missouri public schools will acquire a solid foundation which includes knowledge of

1. structures of, functions of, and relationships among human body systems
2. principles and practices of physical and mental health (such as personal health habits, nutrition, stress management)
3. diseases and methods for prevention, treatment and control
4. principles of movement and physical fitness
5. methods used to assess health, reduce risk factors, and avoid high risk behaviors (such as violence, tobacco, alcohol and other drug use)
6. consumer health issues (such as the effects of mass media and technologies on safety and health)
7. responses to emergency situations

Mathematics

In Mathematics, students in Missouri public schools will acquire a solid foundation which includes knowledge of

1. addition, subtraction, multiplication and division; other number sense, including numeration and estimation; and the application of these operations and concepts in the workplace and other situations
2. geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes
3. data analysis, probability and statistics
4. patterns and relationships within and among functions and algebraic, geometric and trigonometric concepts
5. mathematical systems (including real numbers, whole numbers, integers, fractions), geometry, and number theory (including primes, factors, multiples)
6. discrete mathematics (such as graph theory, counting techniques, matrices)

Science

In Science, students in Missouri public schools will acquire a solid foundation which includes knowledge of

1. properties and principles of matter and energy
2. properties and principles of force and motion
3. characteristics and interactions of living organisms
4. changes in ecosystems and interactions of organisms with their environments

Appendix C – Show-Me Standards

5. processes (such as plate movement, water cycle, air flow) and interactions of earth's biosphere, atmosphere, lithosphere and hydrosphere
6. composition and structure of the universe and the motions of the objects within it
7. processes of scientific inquiry (such as formulating and testing hypotheses)
8. impact of science, technology and human activity on resources and the environment

Social Studies

In Social Studies, students in Missouri public schools will acquire a solid foundation which includes knowledge of

1. principles expressed in the documents shaping constitutional democracy in the United States
2. continuity and change in the history of Missouri, the United States and the world
3. principles and processes of governance systems
4. economic concepts (including productivity and the market system) and principles (including the laws of supply and demand)
5. the major elements of geographical study and analysis (such as location, place, movement, regions) and their relationships to changes in society and environment
6. relationships of the individual and groups to institutions and cultural traditions
7. the use of tools of social science inquiry (such as surveys, statistics, maps, documents)

Each of the standards in this document has been cross walked with The Show-Me Standards that were approved as a final regulation by the Missouri State Board of Education, January 18, 1996. These standards can be found online at <http://www.dese.state.mo.us/standards.html>. The coding system of the Show-Me Performance (Process) Standards used in the curriculum guide are:

1.1 = Goal 1, Standard 1, etc.

The coding system for the Show-Me Knowledge (Content) Standards is designated by a two-letter abbreviation associated with an area of study and the standard's number. Examples are:

- CA 1 = Communication Arts, standard 1
- FA 1 = Fine Arts, standard 1
- HP 4 = Health/Physical Education, standard 4
- MA 2 = Mathematics, standard 2
- SC 5 = Science, standard 5
- SS 6 = Social Studies, standard 6

Appendix D – Coop Policy

APPENDIX D

D. KENT KING
ACTING COMMISSIONER OF EDUCATION

DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION

P.O. BOX 480
JEFFERSON CITY, MISSOURI 65102-0480

September 1, 2000 Revision:

Vocational Policy Letter
4

TO: School Administrators

FROM: Nancy J. Headrick
Assistant Commissioner
Vocational and Adult Education

RE: Policies for Credit and Supervised Employment for Approved High School Cooperative Vocational Education Programs

The following policies apply to the operation of cooperative education as part of DESE approved vocational education programs:

1. The teacher/coordinator must provide both in-class related instruction and supervision of students' on-the-job training.
2. Students must be enrolled in both the class and the supervised employment simultaneously.
3. Training stations must be appropriate for the occupational area for which the program is designed.
4. There must be a written Instructional Management Plan (IMP) between the school and the training sponsor that identifies both in-class instruction and on-the-job training that the student will receive.
5. A current IMP must be on file for each student receiving cooperative education credit.
6. There must be a written training agreement between the school and the training sponsor which assures that students are employed and compensated in conformity with federal, state, and local laws and without regard to race, color, national origin, sex, or disability.
7. The credit awarded for on-the-job training should be 1 unit per school year for each 10 hours of employment per week. No more than 2 credits may be awarded for on-the-job training during a school year.
8. Teacher/coordinator employment contracts should include an additional week beyond regular teacher contracts for each twelve to fifteen cooperative education students so that counseling, placement, scheduling and training station development can be conducted.
9. The teacher/coordinator's schedule must include 225 minutes per week for each 12-15 cooperative students for supervision of on-the-job training.
10. Evaluation of students on the job must include occupationally specific skills as well as attitudinal criteria.

Appendix E – Off Campus

Policy on Granting Credit for Off-Campus Programs Other Than Dual-Credit College Courses

Many students who are juniors and seniors in high school can benefit substantially from school-directed and supervised paid or unpaid learning experiences that cannot be readily provided within a regular classroom setting – experiences that can be made available through assignment to off-campus locations under cooperative arrangements with business and industry or other institutions. The Department of Elementary and Secondary Education recognizes and will approve the four types of off-campus programs described below. A school district may offer other types of off-campus programs without Department approval, but the students enrolled in them may not be counted in membership and attendance for state aid purposes, and the students may not be granted high school credit for the off-campus experience (Sections 161.092 and 161.122, RSMo).

I. Types of Off-Campus Programs

1. Academic Programs involve all students who are enrolled in advanced academic or fine-arts classes and have, as their goals, the acquisition of specialized knowledge and the ability to apply the knowledge to situations which cannot be replicated in a school classroom.

Related Instruction: Students must be enrolled in and receiving related instruction in the regular high school program before credit can be awarded for the off-campus experience.

Credit: Elective credit. One-half unit of credit per semester may be awarded for 10-19 hours weekly of off-campus experience, or one unit of credit per semester for 20 or more hours weekly of off-campus experience. No more than two units of credit may be awarded during any school year.

Teacher Qualifications: The teacher must be certificated in the subject area in which the related on-campus instruction is provided.

Supervision Time: Two hundred twenty-five minutes per week for each ten participating students.

Written Plans: There must be a written instructional plan that sets forth specific learner objectives and an evaluation plan for student performance.

Appendix E – Off Campus

Student Pay: Students may not be paid for their off-campus experience as part of academic programs.

Example: A student enrolled in advanced chemistry spends part of the school day in a chemical company working with technicians. The student will receive credit in advanced chemistry as well as credit for the off-campus experience.

Core Data Course Code: 996001-Academic Programs, Off-Campus

- 2. Career-Exploration Programs** involve all students who have not yet selected occupational goals and who will benefit from exposure to a variety of occupations, as practiced at the job site, so that they may develop their own occupational objectives from direct experience.

Related Instruction: Students must be enrolled in and receiving related instruction as part of the regular high school program. The related instruction will provide students with knowledge of occupational clusters, requisite training and experience for occupations being studied, and skills related to obtaining and holding a job. Students may spend no more than nine weeks at any one job site.

Credit: Elective credit. Credit is awarded as part of the related classroom instruction. One-half unit of credit per semester may be awarded for 10-19 hours weekly of off-campus experience, one unit of credit per semester for 20 or more hours weekly of off-campus experience. No more than two units of credit may be awarded during the school year.

Teacher Qualifications: The program must be under the supervision of a teacher who provides related classroom instruction in career awareness and related areas.

Supervision Time: Two hundred twenty-five minutes per week for each fifteen participating students.

Written Plans: There must be a written instructional plan that sets forth specific learner objectives and an evaluation plan for student performance.

Student Pay: Students may not be paid for their off-campus experience as part of their career exploration programs.

Example: A student enrolled in a career exploration program spends nine weeks outside of the school day observing and learning at the job site in an area of occupational interest. The student completes projects and reports

Appendix E – Off Campus

related to the occupational area and receives credit in the career-exploration class.

Core Data Course Code: 997001-Career Exploration Programs, Off-Campus

- 3. Cooperative Vocational Education Programs** involve all students enrolled in approved cooperative vocational education. The primary goals for these students are the acquisition of specific job skills and demonstrated performance of those skills on the job. Programs must meet standards established and approved by the Division of Vocational and Adult Education. The programs provide structured work experience in a controlled environment, coupled with related vocational and academic instruction.

Related Instruction: Students must be enrolled in an approved vocational education program with classes which are concurrent with the off-campus experience. The related instruction may be less frequent than daily, but must comply with the approved program standards.

Credit: Elective credit. One-half unit of credit per semester may be awarded for 10-19 hours weekly of off-campus experience, or one unit of credit per semester for 20 or more hours weekly of off-campus experience. No more than two units of credit may be awarded during any school year for the off-campus experience.

Teacher Qualifications: The program must be under the supervision of a teacher certificated for cooperative education in the vocational education program area.

Supervision Time: Two hundred twenty-five minutes per week for each twelve to fifteen participating students.

Written Plans: There must be a written instructional plan which sets forth specific learner objectives, an evaluation plan for student performance, and a training agreement signed by all parties involved.

Student Pay: Students must receive pay. The employment relationship must be established for off-campus experience as part of cooperative vocational education programs.

Example: A student enrolled in Marketing Education participates in the Marketing Internship Component. She is placed in a marketing related off-campus experience such as retail sales. The student earns credit for the marketing class and appropriate credit for the internship.

Appendix E – Off Campus

Core Data Course Code(s): 016780-Supervised Agricultural Employment, Cooperative Education; 034380-Supervised Business Employment; 040080-Supervised Marketing Employment; 040081-Supervised COE Employment; 096839-Family and Consumer Sciences Occupations, Cooperative Education; 170080-Supervised CIE Employment

4. Work Experience for Students with Disabilities

- A. Cooperative Work Experience (COOP) Programs for students with disabilities is limited to students with disabilities whose Individualized Education Programs (IEP) indicate the need for work experience in a competitive setting and who are also eligible as clients of the Division of Vocational Rehabilitation. Program goals include the acquisition of general skills related to performing work under supervision, as well as job-related skills.
- B. Sheltered Workshop Programs for students with disabilities are limited to students with disabilities whose IEP team has determined that a student should obtain skills assessment, training, and/or work experience at a local sheltered workshop. The student should be certified for sheltered employment in the following ways:
 - a. referral to the Division of Vocational Rehabilitation or Rehabilitation Services for the Blind for certification
 - b. referral to the sheltered workshop for certification by an Extended Employment Certification Specialist.

Related Instruction: Students must be enrolled in and receiving related instruction in the regular public agency program (includes high school and State Schools for the Severely Handicapped) before credit can be awarded for the off-campus experience. This restriction does not apply to students with disabilities whose IEPs indicate full-time work experience.

Credit: Elective credit. Credit is awarded as part of the related classroom instruction. One unit of credit per semester may be awarded for 10-19 hours weekly of off-campus experience, or two units of credit for 20 or more hours weekly of off-campus experience. No more than two units of credit, or twice the number of units of credit granted for related instruction—whichever is less—may be awarded for off-campus experience during the school year. Students participating in the COOP Program must be released from school for

Appendix E – Off Campus

a minimum of one hour per school day to receive credit for the off-campus work experience.

Note: A students with a disability whose IEP indicates a need for additional supervised work experience to make the transition from school to the world of work may earn up to four units of credit during the school year for off-campus work experience. The additional two units of credit would be based on increments of 20 to 30 hours weekly of off-campus work experience.

Teacher Qualifications: The work experience must be under the supervision of a certificated special-education teacher who has been designated and approved as a work-experience coordinator. The work-experience coordinator would also provide or coordinate the related classroom instruction in the regular school program.

Supervision Time: One class period daily for each 8-15 participating students, depending on the nature and severity of the disabling conditions.

Written Plans: The IEP and Individualized Plan for Employment must set forth specific measurable objectives to be achieved by the student and describe a plan for evaluating student performance.

Student Pay: Students may be paid for their off-campus experience as part of the COOP Program. Students placed in sheltered workshops may or may not be paid during the assessment phase, depending on type of work in which they are involved. The workshop will contract with the school district for assessment costs on an individual basis. Students in training or employed by the sheltered workshop must be paid commensurate wages.

Example: A student enrolled in basic math is released from school the last hour of the day to participate in an off-campus work experience at the local supermarket (working with stockers and/or cashiers). The student will earn minimum wage for his/her work and will also received credit in basic math as well as credit for the off-campus experience.

Core Data Course Code: 196000-Work Experience for Special Education

II. Insurance and Liability for Students in Off-Campus Programs

Students in work based, learning experience programs who are receiving pay for work performed in an off-campus program will generally be covered by the sponsors' workers' compensation insurance and general liability insurance. Students in academic programs and career-exploration programs who are not performing productive work and are not paid, will not be covered by the sponsors'

Appendix E – Off Campus

workers' compensation insurance and general liability insurance. Therefore, any school district that arranges off-campus academic or career-exploration programs must provide accidental injury and job-related illness insurance for students and liability insurance to cover any injuries or damages caused by students on the sponsors' premises. Liability insurance to protect the supervising teacher and any other school-district employees who might be exposed to a liability risk due to the placement of students in off-campus programs should also be provided by the school district.

Since there is danger of unpaid students replacing paid employees, the school district and the cooperating sponsor should exercise extreme diligence in complying with applicable state and federal labor laws and regulations.

III. Attendance Eligible for State Financial Aid

All four types of off-campus programs must be well-planned and adequately supervised by school-district personnel to ensure the school district's eligibility for state and federal funds and to justify the awarding of high school credit to participating students. The following general policies will apply.

- To be counted for membership and average daily attendance for state-aid purposes, students must be under the guidance and direction of certificated teachers employed by the public school district whether the instruction (teaching process) is on campus or off campus. Students who are at least 16 years of age and not over 21 years of age and who are under the guidance and direction of public school teachers for less than the standard school day may be counted as part-time students. (Their part-time membership and attendance are computed according to Section 163.011, RSMo.)
- School districts shall not count students in membership or attendance for any type of off-campus instruction except Department approved off-campus programs that are adequately supervised by the district's certificated teachers to the extent the students can be considered "under the guidance and direction of teachers" and for which the school district is granting high school credit. School districts have responsibility for students during the time they are counted for school membership and attendance for state-aid purposes.

Appendix E – Off Campus

IV. Program Authorization

Written proposals for off-campus programs must be approved annually by the appropriate division in the Department of Elementary and Secondary Education, if the students are to be counted in membership and attendance for state-aid purposes, if funding is involved, or if high school credit is to be granted. Proposals for academic programs and career exploration programs should be submitted to the Coordinator, School Improvement and Accreditation. Proposals for cooperative vocational-education programs should be submitted to the Coordinator, Vocational-Technical Education. Proposals for work-experience programs for special-education students should be submitted to the Coordinator, Special Education Services.

Source: Appendix D, DESE Graduation Requirements Handbook

<http://dese.mo.gov/divimprove/siz/Gaduation%20Handbook.doc>

Appendix F – Bibliography

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