

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

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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:

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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.

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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.