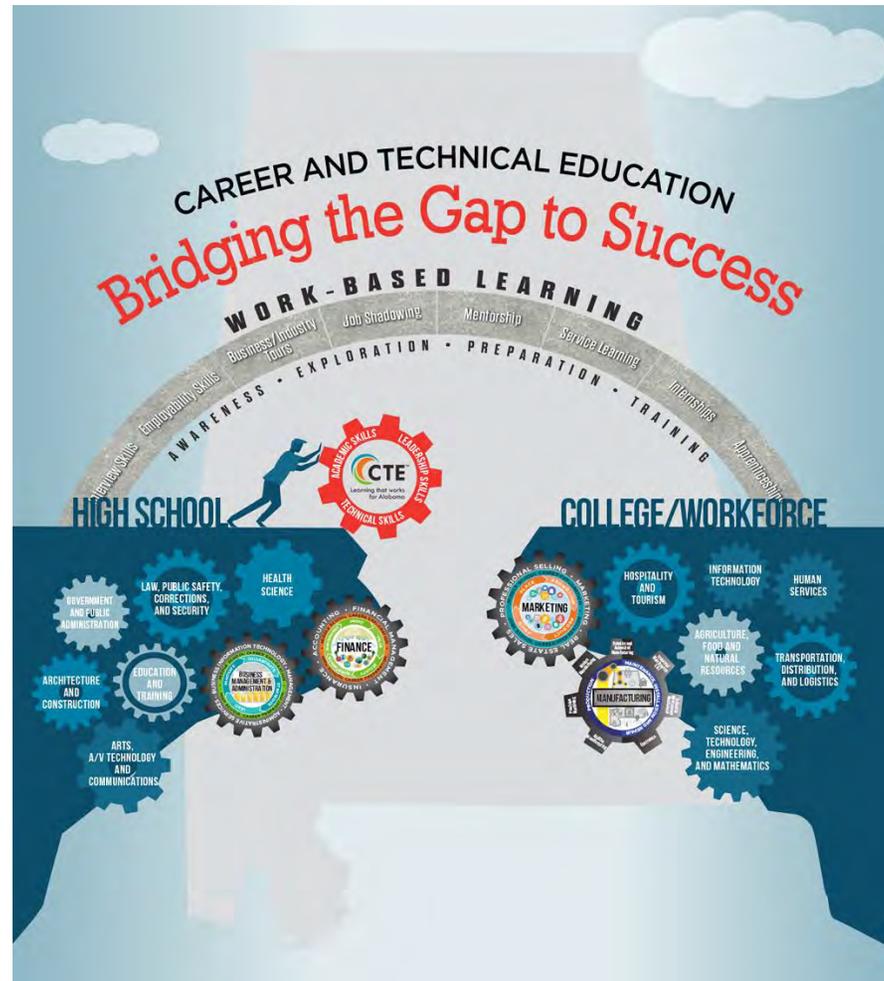


Alabama Course of Study Career and Technical Education



2023

Eric G. Mackey, State Superintendent of Education
Alabama State Department of Education



For information regarding the
Alabama Course of Study: Career and Technical Education
and other materials, contact:

Alabama State Department of Education
Instructional Services Section
3345 Gordon Persons Building
Montgomery, Alabama

P.O. Box 302101
Montgomery, AL 36130-2101

(334) 694-4768

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Alabama State Department of Education

Eric G. Mackey, State Superintendent of Education

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Alabama Course of Study Work-Based Learning



Eric G. Mackey
State Superintendent of Education

**STATE SUPERINTENDENT OF EDUCATION'S
MESSAGE**

Dear Alabama Educator:

The *2023 Alabama Course of Study: Career and Technical Education, Work-Based Learning* presents standards designed to prepare students with workforce skills and experiences necessary to secure and hold positions in all types of career paths.

The challenging standards in this document are designed to support student success in all career and technical education pathways. I encourage each system to use the document to develop local curriculum guides that determine how students will achieve and even exceed these standards.

The 2023 Work-Based Learning standards were developed by educators and business and community leaders to emphasize occupational skills that are transferable across all careers. Implementing the content of this document through appropriate instruction will promote awareness of career opportunities and equip students with the skills needed to pursue and succeed in them.

Eric G. Mackey
State Superintendent of Education

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Alabama Course of Study

Work-Based Learning

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Alabama Course of Study: Work-Based Learning PREFACE

The 2023 *Alabama Course of Study: Career and Technical Education, Work-Based Learning* provides the framework for Grades 6-12 Work-Based Learning programs in Alabama’s public schools. Content standards in this document are minimum and required (*Code of Alabama*, 1975, §16-35-4). They are fundamental and specific, but not exhaustive. When developing local curriculum, school systems may include additional content standards to reflect local needs and philosophies. Systems are encouraged to add implementation guidelines, resources, and activities based upon the content standards in this Course of Study.

The 2020-2021 Alabama Career and Technical Education Course of Study Committee and Task Force conducted extensive research during the development of this course of study, analyzing career and technical education standards and curricula from other states, previous versions of Alabama’s career and technical education courses of study, and national standards. The Committee and Task Force also reviewed information from professional journals and Internet sites, listened to and read comments from interested individuals and industry groups throughout the state, considered suggestions from independent reviewers, sought input from advisory councils, and thoroughly discussed each issue and standard among themselves. The Committee and Task Force reached consensus and developed what members believe to be the best Career and Technical Education Course of Study for students in Alabama’s public schools.

Alabama Course of Study: Work-Based Learning ACKNOWLEDGMENTS

This document was developed by the Work-Based Learning Committee and Task Force of the 2020-2021 Alabama Career and Technical Education Course of Study Committee and Task Force, composed of middle school, high school, and college educators appointed by the Alabama State Board of Education and business and professional persons appointed by the Governor (*Code of Alabama*, 1975, §16-35-1). The Committee and Task Force began work in February 2020 and submitted the document to the Alabama State Board of Education for initial adoption at the March 2021 meeting. The revised version was approved at the Board's November 2023 meeting.

Work-Based Learning Course of Study Committee and Task Force

Chair: Ann West, MS, Superintendent, Marion County Schools

Jamia Alexander-Williams, Board Member, Alabaster City Schools Board of Education, Alabaster City Schools

Shameka K. Baker, MEd, Principal, Lowndes County Career Technical Center, Lowndes County Schools

Amber N. Harbison, PhD, Work-Based Learning Coordinator, Guntersville High School, Guntersville City Schools

Tina M. Lieb, MEd, Lead Special Education Teacher, Transition Teacher, Charles Henderson High School, Troy City Schools

Audrey Peters Marshall, MEd, Work-Based Learning Coordinator, Auburn High School, Auburn City Schools

Melanie L. Smyly, MEd, Collaborative 6-12, Transition Teacher/Job Coach, Opelika High School, Opelika City Schools

Tiffany M. Stonecipher, MEd, Work-Based Learning Coordinator and IT Teacher, Muscle Shoals Career Academy, Muscle Shoals City Schools

Melanie M. Toomey, MEd, Work-Based Learning Coordinator, South Baldwin Center for Technology, Baldwin County Schools

Appreciation is extended to **Memphis Vaughan**, Water Resources Engineer, U.S. Army Corps of Engineers, who served as a content reviewer for this document.

State Department of Education personnel who managed the development process were:

Eric G. Mackey, EdD, State Superintendent of Education

Daniel Boyd, PhD, Deputy State Superintendent

Elisabeth Davis, EdD, Assistant State Superintendent, Office of Student Learning

Jimmy Hull, EdD, Assistant State Superintendent, Career and Technical Education

Sean J. Stevens, MEd, Program Coordinator, Instructional Services

Cathy Jones, MS, Executive Secretary, State Courses of Study Committees, Instructional Services

Craig Collins, Education Administrator, Career and Technical Education

Dawn Morrison, Education Administrator, Career and Technical Education

Jennifer Burt, Education Administrator, Career and Technical Education

Demekia Maddox, Administrative Support Assistant, Career and Technical Education

Catherine Wilbourne, MEd, Editor, Courses of Study

Carol Sprayberry, MEd, NBCT, Consultant, Courses of Study

The State Department of Education specialists who assisted the Task Force in developing the document were:

Tony May, EdS, Education Specialist, Career and Technical Education, Work-Based Learning

Hailey Ridgeway, MA, Education Specialist, Educational Technology

Julie Crockett, MS, Education Specialist, Career and Technical Education, Marketing

Niketa Dean, Education Specialist, Career and Technical Education, Finance and Information Technology

Lisa Weeks, MEd, Education Specialist, Career and Technical Education, Business Management and Administration

Susan Goldthwaite, MS, Education Administrator, Special Education Services

Pamela Ivey, MS, Education Specialist, Special Education Services

Gwendolyn Jordan Preston, MEd, Education Specialist, Special Education Services
Charles V. Creel, Graphic Arts Specialist, Communications

Alabama Course of Study: Career and Technical Education

GENERAL INTRODUCTION

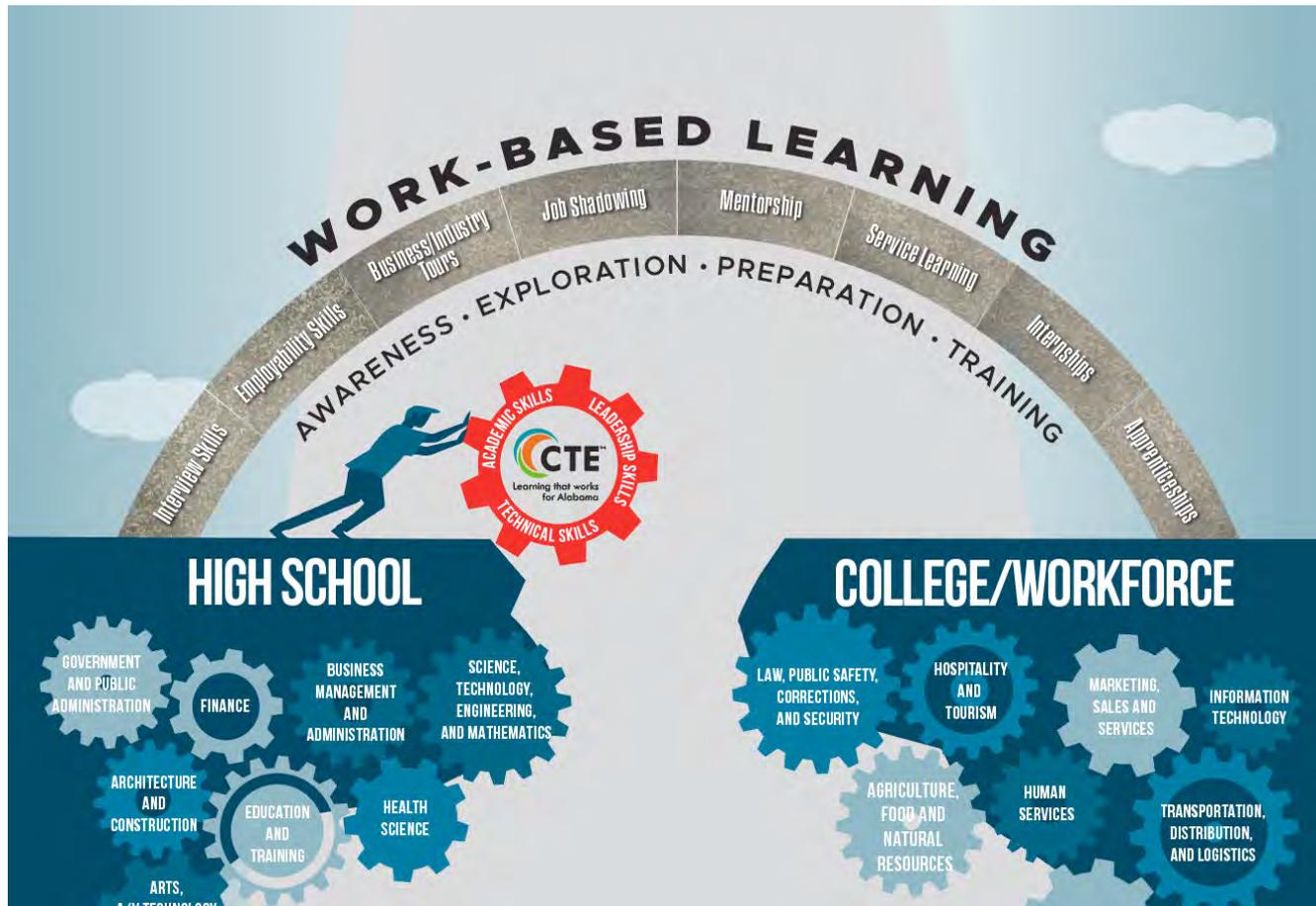
Alabama’s Career and Technical Education programs empower students with the workplace-readiness skills necessary for success in the twenty-first century. The goal of Career and Technical Education Work-Based Learning courses and experiences is to equip students to be productive citizens who are prepared with the necessary knowledge and skills for postsecondary education and employment. Career and Technical Education provides opportunities for students to combine core academic content with rigorous and relevant technical knowledge, skills, and work experiences.

The *Alabama Course of Study: Career and Technical Education* is intended for all students in Grades 6-12. Alabama’s Career and Technical education programs promote students’ career awareness through engaging career exploration and development activities. Career and Technical Education programs focus on providing students with the knowledge and skills that reinforce attainment of academic core content through hands-on experiential learning. These programs are organized into the sixteen national career clusters identified by the United States Department of Education, which arrange instruction into groups of similar occupations. Within the national career clusters, separate course content standards have been developed for more than fifty career pathways.

Alabama’s Career and Technical Education programs are designed to keep abreast of the rapid changes in business and industry and be responsive to current and future workforce demands. Rigor in each course of study is derived from core academic content and industry-specific knowledge and skills required for students to achieve, maintain, and advance in employment in a particular career pathway. The level of academic and workplace rigor determines the degree to which each Alabama Career and Technical Education program prepares students for high-skill, high-wage, and in-demand careers. For each Career and Technical Education program, industry-recognized credentials of value and certifications have been established that validate the rigor of the curriculum to students, parents, and members of business and industry. In addition, articulation agreements are developed in partnership with the Alabama Community College System to allow for a seamless transition for students to further their education.

Alabama’s growing economy has created the demand for more highly-skilled workers. Alabama’s Career and Technical Education programs, through the implementation of each career cluster’s course of study, are designed to equip students with the employability skills and technical knowledge necessary to meet current and future workforce demands by preparing them for lifelong learning.

Alabama Course of Study: Work-Based Learning CONCEPTUAL FRAMEWORK



Alabama Course of Study: Work-Based Learning

CONCEPTUAL FRAMEWORK

The conceptual framework pictured on the preceding page illustrates the bridge that Work-Based Learning provides to connect the general education system, Career and Technical Education programs (represented by the gears), and the workforce.

Work-Based Learning is meant to create a continuum of awareness, exploration, preparation, and training activities, including developing employability and technical skills that support success in careers and postsecondary education. Structured learning and authentic work experiences are implemented through internships and apprenticeships established in partnership with business and industry.

The building blocks of a successful Work-Based Learning program are interview skills, employability skills, business/industry tours, job shadowing, mentorship, service learning, internships, and apprenticeships. Work-Based Learning extends the learning experiences of all Career and Technical Education courses by providing meaningful work experiences for students.

POSITION STATEMENTS

WORK-BASED LEARNING

The Work-Based Learning program of Career and Technical Education focuses on bridging the gaps between K-12 education, postsecondary education, and careers by providing students with meaningful work experiences. In Work-Based Learning classrooms and experiences, students are encouraged to research, explore, compare, and engage in various careers with a goal of planning for and working toward a self-selected vocation. Students and teachers should have access to the latest workforce data, preparation information, and technologies to provide students with practical and real-world experiences in workplace settings.

Classroom and Laboratory Environment

The effective Work-Based Learning classroom and laboratory should be safe environments, fully equipped with current and emerging technologies, supplies, and materials needed for instruction, where students can increase their skills. As in other pathways in Career and Technical Education, Work-Based Learning instruction cannot be confined within the four walls of a traditional classroom. Students and teachers should have access to laboratory environments on campus and in the community where students can experience practical, real-world circumstances.

Technology, Equipment, and Facilities

Classroom technology must be readily available, efficiently maintained, and routinely upgraded according to a regularly scheduled plan. In addition, other classroom supplies and materials such as textbooks, reference materials, and software should be readily available for student use to support instruction, including access to classroom libraries, reading and research areas, and material centers. Maintaining and using up-to-date technology enhances the learning environment and prepares students for future career opportunities.

Safety

Student safety is a prime consideration in any location of the learning environment. A written safety plan is an essential part of planning, implementing, and evaluating each career and technical education program. An effective plan may include federal, state, local, school, and program

guidelines. Students are required to pass safety tests with one hundred percent accuracy. Care must be taken to ensure that students are in safe environments both on and off campus. Safety includes not only physical and emotional well-being but also digital and online security.

Professional Development

As technology and instructional methods continue to change, it is essential for teachers to take advantage of professional development and technical training opportunities to stay abreast of current trends and methods pertaining to their content area and the industry represented. Teachers who continually expand their knowledge and skills are able to adjust the learning environment to reflect current and emerging trends in teaching methods and learning styles. Regular assessment by students, educators, administrators, and business and industry also strengthens the instructional program and enhances professional development.

Administrative Support

Administrative support is essential in providing the necessary components for a successful career and technical education program. Administrators should recruit highly qualified teachers who possess appropriate credentials. Time must be provided for professional development activities and for planning for integration of academic content areas into Work-Based Learning. Funding must be secured for professional development programs and for industry certification for teachers. In addition, administrators should actively participate in marketing the career and technical education programs within the school and in the community.

Instructional Model

In the career and technical education classroom, it is imperative that students apply knowledge, skills, and ideas to solve problems and make decisions. The Work-Based Learning course of study is designed to address the challenges of a changing, technological, diverse, and global society. Students develop their abilities to analyze, communicate, manage, and lead. The Work-Based Learning curriculum should be project-based, process-oriented, and work-based.

The rigorous content standards contained in this document require students to use innovative, critical-thinking skills. Utilization of this document requires teachers to identify the issue or concern addressed in a specific content standard and then to plan appropriate learning experiences. These experiences should be project-based and require higher-order thinking, communication, management, and leadership skills.

The Work-Based Learning curriculum should emphasize the integration of academics. To achieve the solution to a given problem, students must possess an adequate foundation in communication skills for reading, writing, speaking, listening, viewing, and presenting; knowledge and skills in mathematics, science, and social studies; and knowledge of current and emerging technologies.

The Work-Based Learning curriculum should emphasize the integration of workplace demands, essential, and/or soft skills where students' individual learning styles and interests require the use of various instructional strategies. Individual needs of students must be determined by a variety of assessments that evaluate interests, aptitudes, and abilities. Once individual needs have been determined for special populations, a support service program should be planned cooperatively with the career and technical education teacher and other appropriate personnel. Individual education plans are more effective when developed with career and technical education instructors. Courses and equipment may be tailored to ensure equal access to the full range of learning experiences and skill development in the Work-Based Learning curriculum.

Career and Technical Student Organizations (CTSOs)

Nationally-affiliated Career and Technical Student Organizations such as DECA, Inc. and FBLA-PBL, Inc., are an integral part of classroom instruction in each career and technical education program. DECA and FBLA make a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success. The focus of these organizations is to help students develop an understanding of all aspects of industry and technology while learning teamwork and leadership skills. The importance of CTSOs is indicated by their inclusion in the foundational standards to be taught in every Work-Based Learning course.

Business-Industry-School Relationships

A successful Work-Based Learning program requires a close relationship between the school and the business community. Some aspects of this relationship are specified by state and federal laws and regulations, while others are determined by the desires, interests, and willingness of school personnel and business leaders in the local community.

Certification

Maintaining relationships with local businesses and industries is vital to the Career and Technical Education program certification process as well as to federal funding through the Carl D. Perkins legislation. Certain elements of program certification require local industries to participate in the Career and Technical Education program's adoption of industry standards. Representatives from local businesses and industries interact with school

programs to address the ever-changing needs of the competitive global economy. From this interaction, program structure is reviewed to ensure that needs are being met through lesson plans, instructional techniques, facilities, professional development, technical updates, equipment, and implementation of CTSOs.

Student Work Experience

As students begin to plan careers, they must have opportunities to visit, tour, and work at local industries and businesses. Real-world experiences such as cooperative education, internships, apprenticeships, and job shadowing contribute to the work-based, service-based, and project-based learning that enhances classroom instruction. Continual feedback from students and supervisors provides further assessment of the program and facilitates changes necessary to satisfy industry needs.

Advisory Councils and Partnerships

In accordance with Alabama State Department of Education guidelines, each career and technical education program has an advisory council that provides opportunities to establish partnerships as a means for professional input regarding equipment needs, curriculum emphasis, technical updates, and problem solving. This external support is a necessary link to business and industry for the potential acquisition of equipment, resource materials, community support, and qualified speakers. These resources include judges for student career development events, program sponsors, financial support, scholarships, field trip sites, and other program needs.

Community Involvement and Service

There are many ways students and teachers become involved with community and service projects. Mentoring activities may include teacher-to-teacher, teacher-to-student, student-to-student, student-to-community resident, and community member-to-students-and-teacher. Local organizations such as community civic clubs, professional educational organizations, youth organizations, and community adult education organizations are valuable resources for career and technical education programs. Open houses, tours, and presentations provide families and other interested citizens with opportunities to become more involved in the education environment.

Postsecondary and Higher Education Credit

Postsecondary and higher education articulation is a significant element in a student's career cluster. Secondary and postsecondary instructors must communicate on a regular basis to ensure a smooth transition for students and to ensure students are aware of articulation opportunities. Articulation may occur through program alignment with postsecondary programs, early college enrollment, or dual enrollment programs.

Students benefit in a variety of ways when cooperation exists between secondary and postsecondary institutions. One of the benefits is the earning of postsecondary credit in conjunction with work completed while the student is still in secondary school. Postsecondary teachers offer additional benefits by serving as guest speakers, donating equipment, sharing expertise through professional development activities, and addressing other needs appropriate for the school community.

Dual Enrollment for Dual Credit is an enrichment opportunity allowing eligible high school students to earn high school and college credits for courses taken through an Alabama Community College System (ACCS) institution or an Alabama college or university while still enrolled in high school. Articulated credit is awarded when a student enrolls and satisfactorily completes work in a postsecondary institution that has an articulation agreement with that student's participating school.

DIRECTIONS FOR INTERPRETING STANDARDS

The 2023 *Alabama Course of Study: Career and Technical Education, Work-Based Learning* is organized around the following elements: foundational standards, topics, and content standards.

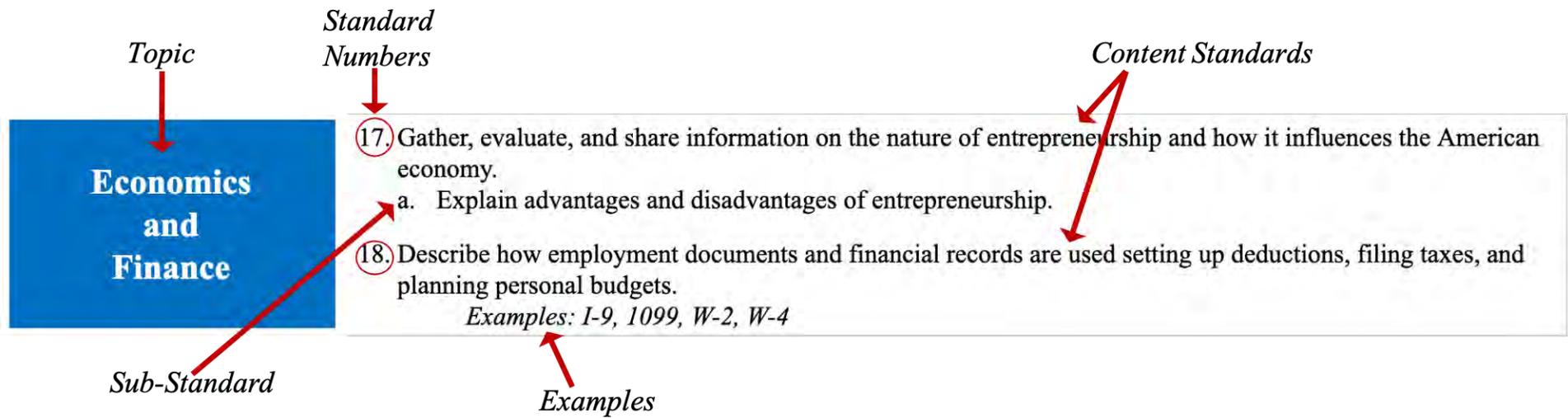
Foundational standards are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership and take advantage of the opportunities afforded by Career and Technical Student Organizations, learn and practice essential digital skills, and participate in a range of workplace activities.

Related content standards are grouped under **Topics**. In the example below, the topic is “Economics and Finance.” Standards from different topics may be closely related.

Content Standards contain the minimum required content and define what students should know or be able to do at the conclusion of a course. Some have **sub-standards**, indicated with a, b, c..., which are extensions of the content standards and are also required. Some standards are followed by italicized **examples**, which represent options that might prove useful in instruction of the standard. Examples are not intended to be exhaustive lists and are not required to be taught. When “including” appears in standards, it should be construed as “including but not limited to.” The items listed must be taught; others may also be included in instruction.

Local education agencies (LEAs) may add standards to meet local needs and incorporate local resources. Each content standard completes the stem “*Students will...*”

The course of study does not dictate curriculum, teaching methods, or sequence; the order in which standards are listed within a course or grade is not intended to convey the order for instruction. Even though one topic may be listed before another, the first topic does not have to be taught before the second. A teacher may choose to teach the second topic before the first, to teach both at the same time to highlight connections, or to select a different topic that leads to students reaching the standards for both topics. Each local education agency should create its own curriculum and pacing guide based on the Course of Study.



OVERVIEW

WORK-BASED LEARNING

Work-Based Learning is defined as sustained interactions with industry or community professionals in real workplace settings (to the extent practicable) or simulated environments at an educational institution. These interactions foster in-depth, firsthand engagement with the tasks required in a given career field. Work-Based Learning standards create a strong foundation for curriculum and instruction.

Work-Based Learning is meant to create a continuum of awareness, exploration, preparation, and training activities, including developing employability and technical skills that support success in careers and postsecondary education. Work-Based Learning allows students to experience practical learning through hands-on application of knowledge in a supervised environment. Structured learning and authentic work experiences are implemented through internships and apprenticeships established in partnership with business and industry. These work experiences are the culmination of the full spectrum of Career and Technical Education.

An effective Work-Based Learning program requires the structured guidance of career education professionals in every aspect of its implementation. Qualified programs must have evidence of a real, meaningful connection among employers, students, and Career and Technical Education educators.

Career Explorations	
Course Duration (to be determined by LEA)	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
Grade Levels	6-8
Prerequisites	

Career Explorations is designed to provide opportunities for students to explore career opportunities and become aware of the importance of basic technology, work ethics, communication skills, the value of work, leadership skills, and basic employability skills. Students will begin investigating career paths to match their interests and abilities, which builds the foundation for future course selection and postsecondary options.

Career Explorations may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), learn and practice essential digital literacy skills, and participating in one or more of the four facets of Work-Based Learning (awareness, exploration, participation, and training). The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

Foundational Standards	<ol style="list-style-type: none"> 1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces. 2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork. 3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
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4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

CAREER EXPLORATIONS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

Technology

1. Demonstrate basic hardware and software technology skills in using digital devices.
Examples: using a personal computer, managing files, using the Internet, using application programs

Work Ethics

2. Explain personal and societal benefits of participating in the workforce.

Communication Skills

3. Deliver workplace presentations that utilize eye contact, clear enunciation, and visual aids during presentations to enhance and sustain listeners’ attention and interest.
 - a. Identify, select, and prepare support materials to accompany a workplace presentation, including tables, charts, and technology.
4. Utilize active listening skills to obtain, clarify, and summarize information in the workplace.
5. Summarize written materials from various career resources clearly, succinctly, and accurately.

Employability Skills

6. Demonstrate positive work behaviors and personal qualities, including willingness to acquire new knowledge and skills, integrity in a work situation, and willingness to follow rules and procedures.
7. Describe employment skills needed for obtaining and maintaining a job.
Examples: punctuality, communication, attention to detail

Leadership

- 8. Demonstrate interpersonal skills, including teamwork, conflict management, problem-solving, and networking.
- 9. Research and demonstrate leadership skills for creating an environment that fosters mutual trust and respect.

Career Opportunities

- 10. Locate resources to determine job and career opportunities related to fields covered in the Alabama Career and Technical Education Clusters.
 - a. Describe each of the Alabama Career and Technical Education Clusters.
- 11. Identify employment opportunities to match personal interests and aptitudes.
- 12. Create a personal plan of study to meet career goals and objectives and cite resources used to create the plan.

Career Preparedness

Course Credit	1.0 (All content standards are required) <u>OR</u> as two sequential one-half credit courses, divided as follows: 0.5 Career Preparedness A (Standards 1, 2, 3, 6, 8, 9, 10, 11, 12, 17, and 18 are required) AND 0.5 Career Preparedness B (Standards 4, 5, 7, 13, 14, 15, 16, 19, 20, 21, 22, 23, and 24 are required)
Grade Levels	9-12* <i>*NOTE: Career Preparedness A may be taught in Grade 8 for one-half credit, to be followed by Career Preparedness B in Grades 9-12 for one-half credit.</i>
Prerequisites	Career Preparedness A is the prerequisite to Career Preparedness B

Career Preparedness focuses on three integrated areas of instruction: academic planning and career development, financial literacy, and technology. Course content includes college and career preparation, computer literacy skills, and personal finance. Technology topics are interwoven throughout course instruction. These standards are designed to provide a strong foundation for student acquisition of the skills, attitudes, and knowledge that enable them to achieve success in school, at work, and across the life span.

Other topics addressed in Career Preparedness are business and industry, continuing education, and lifelong learning. Partnerships and alliances between educational institutions, governmental entities and employers can support these standards and connect students to potential career opportunities.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), learn and practice essential digital literacy skills, and participate in one or more of the four facets of Work-Based Learning (awareness, exploration, participation, and training). The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.

2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Participate in a work-based learning continuum.

CAREER PREPAREDNESS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

Personal Decision-making

1. Utilize a systematic decision-making process which considers opportunity costs and trade-offs to make academic, career, and financial decisions.

Academic Planning and Career Development

2. Research and report on the positive and negative effects of various workplace behaviors.
 - a. Identify inappropriate workplace behaviors, including violence and harassment, and procedures for reporting and addressing such behaviors.
3. Analyze personal skills, interests, and abilities and relate them to career opportunities.
 - a. Participate in assessments that identify personal areas of interest and aptitude, and utilize results to develop a high school educational plan.
 - b. Research and share information about individual career options from the 16 National Career Clusters, including specific job descriptions, requirements, salaries, and employment outlooks.

4. Match personal preference, education, and training to demands of particular jobs.
 - a. Select a personal career goal based upon results of interest and aptitude assessments.
 - b. Investigate employee benefits and incentives related to identified career choices.

Examples: retirement benefits; options for medical, life, and disability insurance; profit-sharing
 - c. Calculate net pay from a given gross salary by subtracting required and optional deductions.
 - d. Utilize database features including merging, sorting, filtering, and formulas to analyze data regarding the effects of career choice on lifestyle, including how interests, ability, and educational achievement relate to the attainment of personal, social, educational, and career goals.
5. Investigate and present information on the postsecondary admissions process, including means of paying for higher education.

Examples: grants, loans, personal financing, tuition reimbursement

 - a. Complete admission, scholarship, and financial aid applications for postsecondary education.

Example: Free Application for Federal Student Aid (FAFSA)
6. Complete steps of the employment process, including searching for a job, filling out a job application, writing a resume, demonstrating interview skills, and completing required employment forms.

Examples: W-4, I-9

 - a. Gather and present information concerning online resources for finding employment, including professional networking.
7. Generate an electronic portfolio using digital tools.

Examples: cover letter; current resume; completed job application; interest, aptitude, and achievement assessment results; curriculum samples (academic research, educational projects); four-year high school educational plan; education/career preparedness checklist; examples of academic and career preparedness achievements (student organizations, club memberships, honors, credentials, certificates, awards, community service experiences, recommendations)

Digital Literacy

8. Diagnose problems for hardware, software, and advanced network systems and identify possible solutions for common technology issues.
Examples: printer, projector, power supply, task manager, network connectivity, firewalls
9. Use digital tools, including multimedia, to create, review, and revise authentic products.
 - a. Utilize advanced features of word processing, including outlining, developing forms, tracking changes, hyperlinking, and mail merging.
 - b. Utilize spreadsheet features, including formulas, functions, sorting, filtering, charts, and graphs.
 - c. Create presentations using effective communication skills and advanced features of multimedia, including photo, video, and audio editing.
 - d. Demonstrate how to compress, convert, secure, import, export, share, and back up files and transfer data among applications.
 - e. Demonstrate how to set up, conduct, attend, and participate in virtual meetings and conferences.
10. Research and report on the functions and types of the most common computer and mobile device operating systems.
Examples: Windows, Mac OS, Linux, Android, iOS
11. Analyze the effects of current technologies on culture, society, economy, environment, and politics and predict possible future innovations.
 - a. Demonstrate proficiency in the use of emerging technology resources, including electronic communications.

12. Demonstrate appropriate digital citizenship through safe, ethical, and legal use of technology systems and digital content.
 - a. Explain consequences of inappropriate, illegal, and unethical use of technology systems and digital content.

Examples: cyberbullying, plagiarism, phishing, hoaxes, impersonation, baiting, spoofing, inappropriate sexual communications
 - b. Gather, evaluate, and share information about copyright laws and policies regarding ownership and use of digital content.
 - c. Explain the implications of creating and maintaining a positive digital footprint.
 - d. Critique Internet and digital information for validity, reliability, accuracy, bias, and current relevance.
 - e. Cite sources of digital content using a style manual.

Examples: Modern Language Association (MLA), American Psychological Association (APA)
13. Utilize an online learning-management system to engage in goal-oriented, focused, project-based, and inquiry-oriented collaborative learning projects, discussions, and online assessments beyond the traditional classroom.
14. Explain specific steps that consumers can take to minimize online exposure to identity theft, fraudulent schemes, unethical sales practices, and exorbitant service fees.
 - a. Describe the uses and limitations of online safety precautions, including data-encryption, password strength, clearing browser cache, firewalls, and antivirus software.

Financial Management and Budgeting

15. Develop a personal plan for managing income, expenses, savings, and charitable contributions, using spreadsheets, online resources, or commercial software.
 - a. Create and adjust budgets, net worth statements, and income/expense statements using a spreadsheet or other financial planning tool.
 - b. Identify types of income other than wages, including rental income, interest, and profit earned from various sources.
 - c. Investigate, evaluate, and share information about various methods for acquiring goods and making major purchases.
Examples: borrowing, renting, leasing, paying cash
 - d. Compare costs of goods and services to determine best value, including sales tax, tips, coupons, discounts, product quality, and unit pricing.
 - e. Explain how to use different payment methods, including cash, debit card, credit card, electronic payments via mobile devices or online, checks, payroll cards, layaway plans, and automatic bank deductions.

Banking and Financial Institutions

16. Describe the functions, advantages, and disadvantages of various types of financial institutions.
Examples: central banks, retail and commercial banks, Internet banks, credit unions, savings and loan associations, investment banks and companies, brokerage firms, insurance companies
 - a. Evaluate services and related costs associated with personal banking at various financial institutions.
Examples: checking and savings accounts, personal checks, cashier's checks, overdraft fees, online banking
17. Manage checking and savings accounts, balance bank statements, and use online financial services.

Credit and Debt

18. Explain advantages and disadvantages of using credit.
 - a. Assess ways that credit card terms affect the cost of using credit and the impact of those costs on personal finances.
Examples: annual percentage rate (APR), grace period, fees, methods of calculating interest

19. Explain why credit ratings and credit reports are important to consumers.
- List ways of building and maintaining a good credit score.
Examples: credit card utilization, closing credit accounts, quantity of credit cards
 - Determine the implications of entering into contracts and binding agreements.
Examples: cell phone contracts, rent-to-own agreements, subscription services, automatic enrollments
 - Compare different types of loans and their advantages and disadvantages, including college loans, payday loans, personal and/or signature loans, vehicle loans, collateral loans, passbook loans, and home mortgages.
 - Describe legal and illegal types of credit that carry high interest rates, including payday loans, rent-to-buy agreements, and loan-sharking.
 - Gather and share information about requirements and eligibility for filing bankruptcy, including means tests and credit counseling.
 - Assess the effects of bankruptcy filings on the consumer, including Chapter 7, Chapter 11, and Chapter 13.
20. Gather, evaluate, and share information about saving for short-term goals.
Examples: holiday savings accounts, “rainy day” or emergency funds, passbook savings accounts
21. Gather, evaluate, and share information about investing for income, retirement, and other long-term goals, indicating advantages and disadvantages of various forms of investment.
Examples: mutual funds, exchange-traded funds (ETFs), stocks, bonds, certificates of deposit (CDs), real estate, commodities; compound interest, Rule of 72

Saving and Investing

Risk Management and Insurance

22. Determine the types of insurance available to deal with different risks, including automobile, personal and professional liability, homeowner's, renter's, property, health, life, long-term care, and disability.
 - a. Identify factors that affect the cost of insurance.
 - b. Identify perils that are insurable.
Examples: injury, loss, destruction
23. Summarize safety and health standards in the workplace for daily procedures, emergency procedures, equipment and tools, dress, use of technology, and work area maintenance.
24. Develop a plan for financial and personal security in the event of disaster, including secure storage of financial records and personal documents, available cash reserve, household inventory, medical records retention, wills, and living wills.

Taxes

25. Explain why taxes are necessary, including how they are used at local, state, and federal levels.
26. Gather and share information about types of taxes paid by individuals, families, and businesses.
Examples: sales, property, fuel, Social Security, Medicare, and income taxes
 - a. Research and explain how taxpayers receive information about taxes owed.
Examples: sales, property, fuel, Social Security, Medicare, and income taxes
27. Gather and share information regarding how taxes are computed and collected.

Workforce Readiness

Course Credit	1.0
Grade Levels	9-12
Prerequisites	

Workforce Readiness standards are designed to provide students with academic and occupational skills that are transferable across jobs and occupational areas. Emphasis is placed on academic foundations for careers, applied technology, career development and employment, entrepreneurship and business economics, social and ethical responsibility, leadership, teamwork, safety and health.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), learn and practice essential digital literacy skills, and participate in one or more of the four facets of Work-Based Learning (awareness, exploration, participation, and training). The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Participate in a work-based learning continuum.

WORKFORCE READINESS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

Career Development and Employability Skills

1. Research and compare career opportunities that are related to individual aptitude, skills, interests, and abilities.
2. Describe the relationship between career planning and educational achievement.
 - a. Research a chosen profession and outline an academic plan to prepare for that profession, including any degrees and certifications that are prerequisites for employment.
3. Demonstrate how to locate, evaluate, and identify career opportunities for a specific career.
 - a. Utilize career resources, career ladders, and career webs.
 - b. Research and report on employment trends and opportunities for career advancement.
 - c. Analyze the impact of population, climate, and geographic location on occupational opportunities.
4. Explain the impact of continued education and career training on financial stability and lifestyle freedom.
5. Demonstrate, both virtually and in real-world settings, the skills needed for seeking, obtaining, maintaining, and changing jobs.
 - a. Gather and share detailed information about job openings and opportunities locally and in various geographical regions.
6. Gather, evaluate, and share information concerning opportunities and benefits of obtaining business- and industry-recognized credentials within a selected career pathway.

Workplace Foundations

7. Demonstrate computation skills in the workplace.
 - a. Solve addition, subtraction, multiplication, and division problems quickly and accurately using mental methods, paper-and-pencil, or other tools to handle workplace demands.
Examples: make precision measurements, read and interpret blueprints, convert between customary and metric units of measurement
8. Gather, share, and apply information on strategies for conflict resolution in the workplace.
9. Identify and practice behaviors that promote positive workplace relationships.

Ethics and Social Responsibility

10. Write an argument supporting the need for guidelines for ethical behavior in the workplace.

Safety and Health

11. Discuss legal issues, laws, and workplace regulations related to employment.
 - a. Identify legal issues affecting the workplace.
Examples: diversity, sexual harassment
 - b. Identify the areas of influence of laws and regulations governing workplace policies.
Examples: Americans with Disabilities Act (ADA), Occupational Safety and Health Administration (OSHA) rules, Environmental Protection Agency (EPA) regulations
 - c. Explain how worker safety regulations protect employees and employers, researching and citing specific instances of consequences when rules were or were not followed.
12. Formulate a sample workplace safety plan that describes strategies students and employers can use to develop or maintain a safe work environment.
Examples: Create a checklist to report on potential dangers in an office environment such as frayed electrical cords, overloaded electrical outlets, missing or damaged surge protectors, and equipment placed too close to heat sources. List the Personal Protective Equipment (PPE) necessary for industrial settings.

<p style="text-align: center;">Applied Technology</p>	<p>13. Describe the benefits of maintaining a positive digital footprint and explain the consequences of unethical or unwise online behaviors for employment and employability.</p> <ol style="list-style-type: none"> a. List components of a digital footprint and explain how it can affect online privacy and one’s reputation. b. Assess how different parts of a digital footprint can have positive or negative impacts on employment.
<p style="text-align: center;">Leadership</p>	<p>14. Research and summarize information on leadership skills and practices.</p> <ol style="list-style-type: none"> a. Gather and share information on leadership styles. b. Discuss how effective and ineffective communication impacts various workplace scenarios. <i>Examples: using proper terminology in communication, being inclusive of team members</i> <p>15. Investigate a selected company’s vision and mission statements, goals, and objectives.</p> <ol style="list-style-type: none"> a. Describe products and services offered by a specific company, and explain how they relate to the company’s mission statement and goals. b. Identify the job titles and describe the roles and responsibilities of various employees in selected companies.
<p style="text-align: center;">Technical Knowledge and Skills</p>	<p>16. Determine uses, capabilities, and limitations of technological tools for reaching personal and workplace goals.</p> <ol style="list-style-type: none"> a. Identify common tools, equipment, machines, and materials required for a selected job.
<p style="text-align: center;">Economics and Finance</p>	<p>17. Gather, evaluate, and share information on the nature of entrepreneurship and how it influences the American economy.</p> <ol style="list-style-type: none"> a. Explain advantages and disadvantages of entrepreneurship. <p>18. Describe how employment documents and financial records are used for setting up deductions, filing taxes, and planning personal budgets. <i>Examples: I-9, 1099, W-2, W-4</i></p>

BIBLIOGRAPHY

“Administrative Code, Chapter 290-6-1 Career/Technical Education (CTE).” Alabama State Department of Education, 2009.

Alabama Course of Study: Career and Technical Education. Alabama State Department of Education, 2008.

Career and Technical Education. Florida Department of Education. www.fldoe.org/academics/career-adult-edu/career-tech-edu/.

“Career and Technical Education Work-Based Learning Guide.” Virginia Department of Education.

Indiana K-12 Work-Based Learning Manual. Indiana Department of Education.

“Kentucky Professional Learning Experience Toolkit.” Kentucky Department of Education. education.ky.gov/CTE/Pages/default.aspx. Millians,

Molly. “Computational Skills.” *Encyclopedia of Child Behavior and Development*. Edited by S. Goldstein and J.A. Naglieri. Springer, 2011.

Showalter, Thomas, and Katie Spiker. “Promising Practices in Work-Based Learning for Youth.” National Skills Coalition, 2016.

www.nationalskillscoalition.org/resources/. Accessed 7 July 2020.