Class Name Here

To be college and career ready, students need to be able to integrate and apply 21st century skills, as well as core academic and technical knowledge. Career and Technical Education programs are aligned with rigorous industry and academic standards. The State of Washington has incorporated the 21st Century Leadership & Employability Skills Standards, developed from *Partnership for 21st Century Skills* organization, within the Career and Technical courses. The 21st Century Skills Standards adopted by the State, focus on creativity, critical thinking, communication and collaboration. These standards are essential to preparing students for complex lives and work environments in our global economy.

Everett Public Schools' Career and Technical Education has developed a program, aligned with the State standards, to provide opportunities for students to be assessed on the 21st Century Skills State Standards. In the Trades Pathway, this is accomplished through assessments recommended by the Office of Superintendent of Public Instruction (OSPI). OSPI has cross-walked resources provided by the student organization, Skills USA, and other recommended assessments. In addition to these resources, students will be assessed using classroom assessments.

The 21st Century Skills Standards students will be assessed on, are assembled into eleven categories. The categories include:

Creativity and Innovation	Flexibility and Adaptability
Critical Thinking and Problem Solving	Initiative and Self-direction
Communication and Collaboration	Social and Cross-Cultural Skills
Information Literacy	Productivity and Accountability
Media Literacy	Leadership and Responsibility
Information, Communication and Technology Literacy (ICT)	

The grading scale used for assessing students is as follows:

4 = Exceeds Standard
3 = Meets Standard
2 = Worked toward meeting standard, but did not complete
1 = Made an attempt to meet standard, but did minimal work
0 = Did not attempt to meet Standard

Each student is responsible for tracking and maintaining their score for the 21st Century Skills Standards for the course. Below is a listing of the Standards for the course and what assessments are available for demonstration of meeting or exceeding the standard throughout the semester. There are multiple opportunities for students to demonstrate their skills. It is up to the student to choose the activities that best fit **their** schedule/needs/interest and to collect the signatures DURING or IMMEDIATELY following the assessment.

Class Name ** LEARNING AND INNOVATION SKILLS **	
Leadership Standard	**OSPI Suggested Resources/Activities**
Think Creatively 1.A.1 Use a wide range of idea creation techniques (such as brainstorming) 1.A.2 Create new and worthwhile ideas (both incremental and radical concepts) 1.A.3 Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Work Creatively with Others 1.B.1 Develop, implement and communicate new ideas to others effectively 1.B.2 Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work 1.B.3 Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas 1.B.4 View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes	Professional Development Program (PDP) Leadership Handbook Serve as a chapter officer or state officer Total Quality Curriculum Chapter, Regional, State, & National Meetings & Conferences SkillsUSA Championships Technical Standards
Implement Innovations 1.C.1 Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur	Professional Development Program (PDP) SkillsUSA Championships Technical Standards Leadership Handbook Chapter, Regional, State, & National Meetings & sConferences Community Service Projects
Reason Effectively 2.A.1 Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests

Use Systems Thinking 2.B.1 Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems	Professional Development Program (PDP) Leadership Handbook Serve as a chapter officer or state office Total Quality Curriculum Chapter, Regional, State, & National Meetings & Conferences SkillsUSA Championships Technical Standards
Make Judgments and Decisions 2.C.1 Effectively analyze and evaluate evidence, arguments, claims and beliefs 2.C.2 Analyze and evaluate major alternative points of view 2.C.3 Synthesize and make connections between information and arguments 2.C.4 Interpret information and draw conclusions based on the best analysis 2.C.5 Reflect critically on learning experiences and processes	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Solve Problems 2.D.1 Solve different kinds of non-familiar problems in both conventional and innovative ways 2.D.2 Identify and ask significant questions that clarify various points of view and lead to better solutions	Professional Development Program (PDP) SkillsUSA Championships Technical Standards—Leadership Contests Leadership Handbook Regional, State, & National Conferences & Contests
Communicate Clearly 3.A.1 Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts 3.A.2 Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions 3.A.3 Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade) 3.A.4 Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact 3.A.5 Communicate effectively in diverse environments (including multi-lingual)	Professional Development Program (PDP) SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Collaborate with Others 3.B.1 Demonstrate ability to work effectively and respectfully with diverse teams 3.B.2 Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal 3.B.3 Assume shared responsibility for collaborative work, and value the	Professional Development Program (PDP) SkillsUSA Championships Technical Standards Leadership Handbook Serve as a chapter officer or state officer Regional, State, & National Conferences & Contests

individual contributions made by each team member	

Class Name ** INFORMATION, MEDIA AND TECHNOLOGY SKILLS **	
Leadership Standard	**OSPI Suggested Resources/Activities**
Access and Evaluate Information 4.A.1 Access information efficiently (time) and effectively (sources) 4.A.2 Evaluate information critically and competently	Local Program Resource Guide (Current Edition) Connecting Career Development Event (Local, State, and National Level) Attendance at leadership specific conferences: Made for Excellence Advanced Leadership Development
Use and Manage Information 4.B.1 Use information accurately and creatively for the issue or problem at hand 4.B.2 Manage the flow of information from a wide variety of sources 4.B.3 Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information	Local Program Resource Guide (Current Edition) Connecting Career Development Event (Local, State, and National Level) Attendance at leadership specific conferences: Made for Excellence Advanced Leadership Development
Analyze Media 5.A.1 Understand both how and why media messages are constructed, and for what purposes 5.A.2 Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors 5.A.3 Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media	
Create Media Products 5.B.1 Understand and utilize the most appropriate media creation tools, characteristics and conventions 5.B.2 Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments	
Apply Technology Effectively	Professional Development Program (PDP)

6.A.1 Use technology as a tool to research, organize, evaluate and communicate information 6.A.2 Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy 6.A.3 Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies	SkillsUSA Championships Technical Standards—Leadership Contests Leadership Handbook Regional, State, & National Conferences & Contests

Class Name ** LIFE AND CAREER SKILLS **	
Leadership Standard	**OSPI Suggested Resources/Activities**
Adapt to Change 7.A.1 Adapt to varied roles, jobs responsibilities, schedules and contexts 7.A.2 Work effectively in a climate of ambiguity and changing priorities	Professional Development Program (PDP) SkillsUSA Championships Technical Standards Leadership Handbook Chapter, Regional, State, & National Meetings & Conferences Serve as a chapter officer or state officer
Be Flexible 7.B.1 Incorporate feedback effectively 7.B.2 Deal positively with praise, setbacks and criticism 7.B.3 Understand, negotiate and balance diverse views and beliefs to reach workable solutions, particularly in multi-cultural environments	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Manage Goals and Time 8.A.1 Set goals with tangible and intangible success criteria 8.A.2 Balance tactical (short-term) and strategic (long-term) goals 8.A.3 Utilize time and manage workload efficiently	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Works Independently 8.B.1 Monitor, define, prioritize and complete tasks without direct oversight	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests

Be Self-Directed Learners 8.C.1 Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise 8.C.2 Demonstrate initiative to advance skill levels towards a professional level 8.C.3 Demonstrate commitment to learning as a lifelong process 8.C.4 Reflect critically on past experiences in order to inform future progress	
Interact Effectively with Others 9.A.1 Know when it is appropriate to listen and when to speak 9.A.2 Conduct themselves in a respectable, professional manner	Professional Development Program (PDP) SkillsUSA Championships Technical Standards—Chapter Business Procedure Contest Leadership Handbook Chapter, Regional, State, & National Meetings & Conferences
Work Effectively in Diverse Teams 9.B.1 Respect cultural differences and work effectively with people from a range of social and cultural backgrounds 9.B.2 Respond open-mindedly to different ideas and values 9.B.3 Leverage social and cultural differences to create new ideas and increase both innovation and quality of work	Professional Development Program (PDP) Leadership Handbook Chapter, Regional, State, & National Meetings & Conferences Serve as a committee member, chapter officer, or state officer Community Service Project
Manage Projects 10.A.1 Set and meet goals, even in the face of obstacles and competing pressures 10.A.2 Prioritize, plan and manage work to achieve the intended result	Professional Development Program (PDP) Total Quality Curriculum SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests
Produce Results 10.B.1 Demonstrate additional attributes associated with producing high quality products including the abilities to: 10.B.1.a Work positively and ethically 10.B.1.b Manage time and projects effectively 10.B.1.c Multi-task 10.B.1.d Participate actively, as well as be reliable and punctual 10.B.1.e Present oneself professionally and with proper etiquette 10.B.1.f Collaborate and cooperate effectively with teams 10.B.1.g Respect and appreciate team diversity 10.B.1.h Be accountable for results	Professional Development Program (PDP) SkillsUSA Championships Technical Standards Leadership Handbook Regional, State, & National Conferences & Contests Serve as a chapter officer or state officer
Guide and Lead Others 11.A.1 Use interpersonal and problem-solving skills to influence and guide	Professional Development Program (PDP) Leadership Handbook

others toward a goal 11.A.2 Leverage strengths of others to accomplish a common goal 11.A.3 Inspire others to reach their very best via example and selflessness 11.A.4 Demonstrate integrity and ethical behavior in using influence and power	Serve as a chapter officer or state officer Regional, State, & National Meetings & Conferences SkillsUSA Championships Technical Standards
Be Responsible to Others 11.B.1 Act responsibly with the interests of the larger community in mind	Professional Development Program (PDP) Shadowing & Mentoring Regional, State, & National Conferences & Contests

Activity Descriptions

3-D Visualization and Animation
The world of 3D is rapidly expanding, and career opportunities exist in a wide range of fields – including architecture, games, product and industrial design, civil engineering, and film and television animation. This contest allows students to step into a real world 3D production environment where creative output must be accomplished within specific timeframes, resources and design constraints. This is a two-person team event and includes a preliminary written exam. Contestants must produce high quality images and an animated short subject using 3D computerized images. Students are evaluated on their technical knowledge, production skills and creative abilities – including visual development and storyboarding. They will also have the opportunity to interface with and get feedback from high-profile judges with successful careers in 3D visualization and animation.

Action Skills
A five- to seven-minute demonstration of an occupational skill in an area in which a student is training. Contestants use examples, experiments, displays or practical operations to clearly explain their skills using contestant-prepared visual aids.

Advertising Design
Tests technical skills and creative aptitude just as though contestants worked for an ad agency. In addition to a written test, competitors will re-create a given advertisement on the computer. Competitors are judged on their accuracy, proficiency with industry standard software and ability to meet the given deadline. Contestants also compete in a creative portion of the competition. The creative portion involves the application of creative thinking and development of a design problem. Layout, drawing and illustration skills are used, as well as their ability to create vibrant, effective designs using the computer.

American Spirit
A notebook contest documenting SkillsUSA chapters' community service and citizenship projects that demonstrate a belief in the American way of life and the purposes of SkillsUSA.

Architectural Drafting
Contestants will use their drafting skills to solve an Architectural problem. The problem includes a written test, a hand sketch, and drawings EITHER computer-generated or board drafted. *If board drafting, please bring all necessary equipment.* The contest tests the contestants' problem solving abilities, not simply their CAD skills.

Audio/Radio Production
The Audio/Radio Production contest is designed to challenge contestants in two-person teams to produce a 60-second to two-minute audio/radio production. Specific details for the production are determined by the technical committee based on the published technical standards and available production opportunities. The contestants are judged on the professionalism of their production, the quality of the audio and the conveyance of the information to the listener.

Automated Manufacturing Technology
The contest evaluates teams for employment in integrated manufacturing technology fields of computer aided drafting/design (CAD), computer aided manufacturing (CAM), and computer numerical controlled machining (CNC). CAD operators construct the part geometry; the CAM operator generates the tool paths; and the CNC operator sets up and machines the part. Plotting is not a scored event; however the contestants must be able to generate a plot file that will be used to send their data to the plotter.

Automotive Refinishing Technology
Contestant will demonstrate the ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). The competition includes a series of workstations to assess skills in the following areas: surface preparation, spray gun operation, paint mixing, matching and applying, solving paint applications problems, determining finish defects, causes and cures and utilizing safety precautions. The competitor will also complete an interview, a written estimate and an ASE written exam. The overall appearance of the finished products, speed and proper safety practices will be judged.

Automotive Service Technology
Contestants will demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). Workstations consist of on-vehicle, simulations, bench and component testing and a written test. Contestants will be judged on technical competency, accuracy, quality, safety and ability to follow directions. There are thirteen skill stations including the written test.

Aviation Maintenance Technology
Contestants perform 12 tasks that represent the types of maintenance they will handle in the aircraft industry. The contest scope is consistent with the airframe and power plant mechanics certification guide published by the Federal Aviation Administration. Aviation maintenance is the only maintenance profession certified by the federal government.

Basic Health Care Skills
Contestants will demonstrate their knowledge and ability to perform entry-level procedures or skills based on the following list of core standards: Academic Foundations, Communication Skills, Career Opportunity Concepts and Systems, Employability and Teamwork, Ethical and Legal Issues, Safety Practices. Performance will be evaluated through various stations involving written, verbal and skills testin. eferences: Diversified Health Occupations, Seventh Edition by Louis Simmers, Thomson-Delmar Learning and National Health Care Foundation Standards.

Broadcast News Production
The contest is comprised of four student members. Two students serve as the news anchor team, one student will serve as the team's director/technical director, and one student will serve as the floor director. Each team will have two hours to write and produce their rundown before assigned contest time. Teams will produce and complete a three-minute newscast as if it were live. Teams are evaluated on their broadcast writing ability, voice quality, diction, timing and pacing and performance techniques.

Building Maintenance
Students will demonstrate competencies related to the building maintenance trade. Students will be expected to compete in a higher level of mastery areas

considering the fact that the contest is a national event. These areas will include, but are not limited to, carpet care, office and restroom cleaning, floor care and liquid measurement.

Cabinetmaking
Requires the building of a small cabinet from materials and drawings supplied. Contestants are expected to read the drawings, lay out and cut the parts using a table saw, laminate trimmer, hand drill, hinge boring machine and various hand tools. The parts must be accurately assembled, sanded and adjusted to tolerances specified by the judges.

Carpentry
Contestants will frame walls using wood and or metal steel studs, cut and install rafters, gable end overhangs, fascia board and soffit installation, install sheathing and or exterior siding and trim. Demonstration of knowledge of stair construction is required. Contestants will be judged on accuracy, ability to read and interpret blueprints, workmanship, safety and the proper use of tools, equipment and materials.

Career Pathways Showcase
Recognizes outstanding Tech Prep students for their ability to present, through the design and construction of a display, the application of skills and education brought about through Tech Prep career training. Students perform a professional team presentation applying the appropriate technology associated with the Tech Prep program. A team consisting of three students enrolled in the same recognized Tech Prep program must present the project.

Chapter Business Procedure
Student teams of six members, will demonstrate their knowledge of parliamentary procedure in both a written exam and a team demonstration. The written exam will consist of 100 questions related to materials found in Robert's Rules of Order—Newly Revised. Order a copy here. Scores are averaged and included as part of the team's overall score. During the presentation, the team will demonstrate the running of a typical business meeting using a standard order of business. During the presentation, the team must properly insert into the order of business the secretary's minutes, treasurer's report and business items identified by the technical committee. In addition to the debate and transaction of the business items, teams will also properly demonstrate at least 6 different parliamentary procedure motions, including at least one of each of the following: main, privileged, subsidiary, incidental and motions that bring back issues to the floor. Minutes of the demonstration will be read by the secretary upon completion of the demonstration.

Chapter Display
Selects the outstanding promotional exhibit designed and constructed by SkillsUSA student members. The display is built around and articulates a common theme established annually by SkillsUSA. The contest involves a team of no more than three students setting up the display and one student presenting information about the display in a presentation/interview with judges.

CNC Milling
The contest will assess the ability to write the CNC program for a part
drawing and materials, determine tool offsets, setting up the machine and producing a part on a milling machine. The contest will include a written test evaluating a contestant's knowledge of Computer Numeric Control machining in such areas as: basic machining skills, CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication and inspection.

CNC Turning
The contest will assess the ability to write the CNC program for a part
drawing and materials, determine tool offsets, setting up the machine and producing a part on a lathe. The contest will include a written test
evaluating a contestant's knowledge of Computer Numeric Control machining in such areas as: basic machining skills, knowledge of CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication and inspection.

If you have any questions about this contest, please contact Bob Kelly or call (614) 264-9360.

Collision Repair Technology
Contestants will demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). The competition includes a series of workstations to assess skills in the following areas: metal straightening, welding, plastic repair, and structural analysis. There will be a written test on estimating, structural analysis, and an ASE exam. The competitors will also participate in an interview. The overall appearance of the finished product, speed and proper safety practices will be judged.

Commercial Baking
Challenges contestants to meet production and quality standards expected by industry. Students must scale, mix, prepare and bake six products (including breads, rolls, Danish, cookies and pies) and demonstrate cake-decorating skills. They must deliver a quality, salable product while working efficiently and under job-like conditions.

Community Service
The community service competition evaluates local chapter activities that benefit the community. SkillsUSA chapters present their best community service project for the year. Contestants are evaluated on a notebook which reports their chapter's community service project and on a live presentation, which is given to a panel of three judges.

Computer Maintenance Technology
The CMT contest requires contestants to identify and repair computer hardware malfunctions, solve configuration problems, and install common components. In addition, the contestants take the A+ Certification exam. Their score on this exam is used as the basis for the written portion of the contest, and contestants who pass the exam receive their A+ Certification.

Computer Programming
Competition consists of project coding and output, a skill-related written test and an interview. The contestants will receive a packet that includes instructions to the written test and each of the two projects. Each project's specifications are written for Visual Basic, Java, C#, C++ and RPG. The projects will be saved on the Desktop in a folder called "SkillsUSA Contestant#_." All projects will be downloaded to a jump drive or diskette (whichever the student prefers) and transferred to a main station to be printed, both code and screen.

Cosmetology
Students will demonstrate their skills in haircutting, hair styling and long hair design in four separate tests. All work is performed on mannequins so everyone begins with the same model and the same type of hair. Contestants will create one 90 degree women’s haircut, one woman’s and one man’s cut from a finished photo. A display of creativity is seen in the long hair segment of the competition where these future salon professionals demonstrate their own design skills. A parade finale closes the contest with each contestant walking down the stage with their completed mannequins to present to the audience.

Crime Scene Investigation
Contestants will be directed to the crime scene and briefed as to the situation. The contestants will, as a three-person team, process the crime scene. They will legally search for, properly collect and remove evidence of the crime. One member of the team will be required to lift a latent fingerprint from a pre-selected item of evidence. After the scene has been processed, the contestants will write their report, draw the crime scene sketch and mark their evidence.

Criminal Justice
For students preparing to be police officers or to work in other areas of criminal justice. Typically this contest will utilize both written examination and practical

exercises to evaluate the contestants' abilities and knowledge of the field. The contestants are scored on their knowledge and application of U.S. Constitutional Law, written and verbal communications skills, and their ability to handle an entry-level law enforcement position.

Culinary Arts
The competition will encompass both hot and cold food preparation and presentation. Contestants will demonstrate their knowledge and skills through the production of a four-course menu in a full day competition. The contestants will be rated on their organization, knife skills, cooking techniques, creative presentation, sanitation food safety techniques, and above all, the quality and flavor of their prepared items. The high school competitors will work from one menu with standardized recipes. The college/postsecondary students will work from a market basket format and write their own menu and recipes the night before the competition.

Customer Service
Evaluates students' proficiency in providing customer service. The contest involves live, role-playing situations. Contestants demonstrate their ability to perform customer service in both written and oral forms including telephone and computer skills, communications, problem solving, conflict resolution and business etiquette.

Dental Assisting
Contestants demonstrate procedures specified in the accreditation standards for Dental Assisting Education Programs of the Commission on Dental Accreditation. Students compete in chair-side assisting; preparation of dental materials; infection control; and emergency, laboratory and office procedures. Skills evaluated may include administrative, clinical or laboratory dental areas.

Diesel Equipment Technology
Contestants cycle through fourteen stations testing and troubleshooting engines, electrical and electronics systems, power train systems including chassis, transmissions and carriers. Contestants also demonstrate skills in hydraulic systems, vehicle inspections, fundamental failure analysis, brake systems, air-conditioning systems and general shop skills. Contestants also perform a job interview skills and complete a written test.

Electrical Construction Wiring
Contestants are required to complete a written test of questions formulated from the latest edition of the NEC, a practical conduit bending exercise and a hands-on installation of a conduit system, cabling system and wiring devices. Working from drawings and specification sheets, contestants are required to install an electrical system common with most residential projects. Judging is based on general workmanship, accuracy of layout and installation, and adherence to the current national Electrical Code and standard industry safe practices. Contestants knowledge of the materials used in the electrical industry will be tested when they are required to fill an order from a bill of material that will be used to complete the hands-on portion of this contest.

Electronics Technology
The contest is divided into five sections: customer service exam, written exam, soldering, breadboarding and troubleshooting. Contestants' will demonstrate their knowledge of analog and digital circuitry; ability to troubleshoot electronic circuits; ability to construct and test experimental circuits; and, ability to design and select circuit components. All aspects of the competition test contestants' abilities to use and calibrate electronic equipment, record and organize data, and demonstrate proper safety practices.

Employment Application Process
Tests the contestant's readiness in applying for employment and their understanding of the process. The contest is available to students who are classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997. The competition includes completing an application and interviewing with the judges. Their resume and portfolio are used during their interviews.

Engineering Technology
A team of three students demonstrates their ability to design an innovative engineering project and present those ideas along with a display and live model. During the presentation, students are judged on their performance as a professional team, presentation of their project to a panel of judges from the engineering field, their storyboard presentation model, and the overall effect of the presentation.

Entrepreneurship
A team event testing students' knowledge in starting their own businesses by developing business plans that identify needed products or services in a local market. Emphasis is placed on financial planning and practicality of product/service. Teams give oral presentations based upon their written plans and the team must successfully answer questions by a team of judges in response to typical problem encountered by entrepreneurs during their first year of business.

Esthetics
The Esthetics competition evaluates the contestants' techniques and professionalism in the field of skin care. Students will be tested in four different areas: an oral skin consultation; a written exam covering the fundamentals of skin care; sanitation; skin analysis; a hands-on basic facial demonstration; and, a day time and fantasy make-up application.

Extemporaneous Speaking
Requires contestants to give a three- to five-minute speech on an assigned topic with five minutes of advance preparation. Contestants enter the preparation area one at a time where they are given a speech topic. They are judged on voice, mechanics, platform deportment, organization and effectiveness.

Firefighting
The Firefighting contest evaluates the contestant's preparation for firefighting careers through hands-on skill demonstrations and both written and oral presentations. Areas tested include: safety; breathing apparatus; fire streams; ladders, ropes, knots and hoses; fire control; ventilation; emergency medical care and rescue; and protecting fire cause evidence. Contestants are evaluated using standards established by the National Fire Protection Association (NFPA).

First Aid/CPR
Evaluates contestant's ability to perform procedures or take appropriate action based on scenarios presented related to CPR (Adult/AED, Child and Infant CPR) first aid Medical emergencies. There is also a written exam. All skills are judged on nationally accepted standards identified from any of the following organizations: The American Red Cross, The American Heart Association, American Safety and Health Institute and The National Safety Council.

Food and Beverage Service
Contestants are tested on skills required in the "front of the house" of a fine restaurant. The focus is on guest service and guest relations in the dining room including: table set up; greeting guests; reservations procedures; presentation of menus; description of food, drinks, soups and specials of the day; taking orders; serving each course and clearing the table after each course; and preparation and presentation of the check and closing remarks. Contestants are judged on personal appearance, tableside manner, professionalism, ease with guests, courtesy, general knowledge and technical and verbal skills.

Graphic Communications
Contestant will participate in a seven part contest which includes the following segments in alphabetical order: DIGITAL WORKFLOW—The student will access file and follow instruction to perform preflight operations to make corrections and review overall quality of the file; ELECTRONIC PREPRESS—The student will create a file with InDesign on an Apple Computer and following instructions will create a file that matches a provided sample; FINISHING—The student will prepare and operate a paper cutter, following instruction cut paper to specifications, prepare table top folder for various folding exercises and a short written test; OFFSET PRESS OPERATIONS—The student will prepare the press, install plate, make ready to print, and print two colors on a preprinted two color sheet; ORAL PROFESSIONAL ASSESSMENT—The student will participate in an interview exercise; PRODUCTION PLANNING—The student will solve production problems relating to paper, ink and production; and, TECHNICAL KNOWLEDGE TEST—The student will complete a general technical knowledge test.

Health Knowledge Bowl
Tests teams of four students on their collective knowledge of health occupations. Teams are judged on speed and accuracy answering questions in nine categories: (1) Academic Foundations; (2) Communication; (3) Systems; (4) Employability Skills; (5) Legal Responsibility; (6) Ethics; (7) Safety Practices; (8) Teamwork; and, (9) Health Maintenance.

Health Occupations Professional Portfolio
The Health Occupations Professional Portfolio contest recognizes students for their successful development of a professional portfolio. The competition evaluates the ability of the students to present themselves to a prospective employer. The contestants will show the use of the portfolio use effective communication skills in presenting. The contest consists of two parts: a portfolio notebook and a live presentation by the contestant.

HVACR (Heating, Ventilation, Air Conditioning & Refrigeration)
The contestants will be tested in the following areas: written exam, brazing skills, refrigerant component service, air measurement and troubleshooting, refrigerant recovery and electrical troubleshooting. Various industry equipment may include ice machines, refrigerated display cases, small package HVAC units, furnaces, and split system air conditioning units.

Industrial Motor Control
Students will demonstrate their knowledge of electrical principles, equipment and industry standards as it relates to the design and installation of motor control circuits. Students will demonstrate their skills and abilities in applying that knowledge by properly installing motor control equipment and associated enclosures, raceways, pilot devices and circuitry.

Internetworking
The contest consists of three main parts--networking design, general networking knowledge and hands-on evaluations. The networking design problem tests a contestant's ability to design functionality, scalability, adaptability and manageability of an internetworking system. The online written portion tests the student's complete knowledge of internetworking concepts. The hands-on component demonstrates the abilities of the contestant to make cables, trouble shoot network systems, configure routers, switches and servers, to deliver customer service in a technical assistant center environment. The contestants will find errors in WAN and LAN networks; do an ISP configuration using routers and switches; talk a technician through an error they are having on their network; and, take an online, certification type test. The national contest is based on the most current CCNA certification. In today's job market system administration skills are needed, therefore the server skills listed here will be scored: Install DNS, create a record, install active directory service, and DHCP. In addition, contestants should have knowledge of creating user and group accounts on Windows Server 2008. Use this link to receive a 180 day trial version of server 2008: www.microsoft.com/windowsserver2008/en/us/try-it.aspx

Job Interview
Divided into three phases: completion of employment applications; preliminary interviews with receptionist; and, in-depth interviews. Contestants are evaluated on their understanding of employment procedures faced in applying for positions in the occupational areas for which they are training.

Job Skill Demonstration A
Contestants demonstrate and explain an entry-level skill used in the occupational area for which they are training. Competitors in Job Skill A must demonstrate a career objective in an occupational area that is included in one of the contest areas of the SkillsUSA Championships.

Job Skill Demonstration Open
Contestants demonstrate and explain an entry-level skill used in the occupational area for which they are training or outside of their training program. Any technical skill may be demonstrated.

Major Appliance Technology
Contestants rotate from station to station diagnosing common service issues on refrigerators, washers, dryers, ranges, microwave ovens and dishwashers. Contestants also demonstrate their ability to braze by assembling a copper and steel tubing project per a schematic provided. The Contestants customer satisfaction and employability skills will also be evaluated using, interviews, job applications and various types of assessments. There is also a major appliance technology general knowledge learning exercise.

Marine Service Technology
The Marine Service Technology contest includes individual skill stations and a written or online test. The hands on test stations include many aspects of 2-stroke and 4-stoke outboard, stern drive and inboard troubleshooting and repair. Students should be proficient in marine application electrical/ignition systems, fuel systems, cooling systems, lubrication systems, drive/transmission systems and boat and trailer rigging and repair. The written or online test includes the above listed topics including diagnostics, service and repair of marine accessory items. Contestants will be judged on safe work practices, cleanliness, organizational skills, accuracy, speed and completion of assigned tasks, worksheets and paperwork.

Masonry
While production is very important, quality workmanship is vital. The students will be expected to construct a composite brick & block project in a six-hour period that will test their ability to meet industry standards in quality. In addition to a written exam, the critical eye of journeyman judges will be the deciding factor in determining the winners. The contest project will include components of the most frequently used details in residential construction.

Mechatronics
Requires contestants to understand the new industrial discipline of "mechatronics," the ability to understand complex systems that integrate various elements in the mechanical, fluid power, and controls domain, combined with the ability to work in a team environment with people of different areas of expertise. Mechatronic specialists must therefore have well development skills in pneumatic technology, electrical and electronics systems, mechanical systems and general automation techniques and practices, including systematic troubleshooting methods. This competition consists of three events designed to measure the skills required in the modern automated manufacturing environment. Contestants will be required to assemble, adjust and test an automated machine system, troubleshoot and repair a faulty machine system and take a comprehensive written test. The contest elements have been designed to be as realistic as possible, closely resembling the tasks and activities of modern automation professionals. High school teams of two will compete in a construction phase and a troubleshooting phase. In addition, there will be an individual oral interview.

College/postsecondary teams are required to provide their own PLC that will be used in the construction phase.

Medical Assisting
Contestants are tested on their skills in the clinical and administrative setting. They are judged on speed, the use of correct safety measures and their ability to interact personally with a patient. Skills are inclusive of general office skills, communication skills, patient education, knowledge of anatomy and physiology, terminology, instrument identification, and equipment, as well as on a variety of clinical procedures and techniques. Contestants need to be able to assess a situation in a short period of time and perform a skill required for that situation within the given time limit.

Medical Math
Contestants demonstrate their knowledge of general math concepts used in the healthcare fields. They complete a written test that may include the use of ratio/proportion, dosage calculation, metric and household equivalents, Roman numerals, abbreviations, and general math including percentages, among other medical math-related problems.

Medical Teminology
To evaluate the knowledge of medical terminology and abbreviations of an individual preparing for employment in the health occupations fields.

Mobile Electronics Installation Demo
This event tests contestant's abilities top perform standard installation practices used by certified, professional mobile electronics installers. These skills have been established through the certification objectives and items created for the Basic MECP certification by the Consumer Electronics Association. This event includes a written examination covering the Basic MECP certification, a professional interview and five hands-on applications that include taking electrical measurements, installing consumer electronics equipment in a mobile environment, soldiering, working with relay circuits and troubleshooting electronic circuitry.

Mobile Robotics Technology
The contest will test the ability to perform, exhibit and compile skills and knowledge from the following list of competencies determined by the SkillsUSA Mobile Robotic technical committee. It will evaluate each contestant’s preparation for employment in the field of robotics with emphasis on the team approach to problem solving in a work environment.

Motorcycle Service Technology
Contestants perform tasks representative of those encountered in a dealership's service department. Technical skills include performing scheduled maintenance tasks; use of service, electrical diagnostic and parts manuals; electrical diagnostics; precision measurement; brake service; chassis/suspension service; fuel delivery system inspection and repair; transmission and drive systems; power train systems; on Harley-Davidson motorcycles. Judges will look for clean and organized work habits; correct use of reference materials; the ability to follow directions; and good technical skills.

Nail Care
The purpose of this contest is to evaluate each contestant's preparation for employment and to recognize outstanding students' excellence and professionalism in the field of nail technology. The contest consists of 6 separate segments; oral communication skills, acrylic application, tip and wrap application, nail polish application, nail art pedicuring and a written exam. The written exam tests basic knowledge of proper sanitation, chemical safety, salon procedures, etc. The practical applications evaluate the contestant's ability to perform the most common nail services in the salon today.

Nurse Assisting
Students will demonstrate knowledge and skill in performing personal care, encouraging patient independence, assisting with ambulation, and performing other routine tasks, including standard infection control procedures used in basic nurse assisting. Students will demonstrate knowledge and abilities in CPR, and the measurement of vital signs. Contestants will be familiar with basic anatomy, communications skills, legal/ethical issues and employment skills

Occupational Health and Safety
Students demonstrate the safety and health endeavors of their respective technical programs by putting together a scrapbook that highlights important programs, activities and events related to their school's health and safety program. The competition encourages chapters to be active in all phases of SkillsUSA. The health and safety activities of the chapters are evaluated on the planning and organization of four projects and the final outcome of those projects. Students are interviewed and scrapbooks are scored by a panel of judges based on the quality and content of the scrapbooks and on the candidates' presentation during the interview process.

Opening and Closing Ceremonies
A teamwork and oral presentation contest that evaluates teams' understanding of the symbolic representation of the colors and assembled parts of the SkillsUSA emblem. Each team includes seven registered members in the roles of president, vice president, parliamentarian, reporter, treasurer, secretary and historian. The contest is a demonstration of the SkillsUSA Opening and Closing Ceremonies conducted according to the script and description as printed in the SkillsUSA Championships Technical Standards.

Outstanding Chapter
The Outstanding Chapter consists of activities members have been involved with during the school year. Activities consist of chapter meetings, leadership training,

publicity, community service projects, professional development, program of work, awards, local and state competition and other selected chapter activities. Each activity is documented according to guidelines and submitted in a scrapbook for judging. One student representative is interviewed during the competition.

Photography
Contestants demonstrate their ability to use digital SLR's, image editing software (Adobe Photoshop) and professional studio lighting. Students perform on-site photography, portrait studio lighting & posing, process and print digital photos and submit two 11x14 or 16x20 mounted & matted photographs in advance of the contest to be judged and displayed at the competition. Contestants are evaluated on their mastery of entry-level job skills.

Pin Design
Students present their state-winning pin along with their artwork and participate in an oral presentation regarding all aspects of their creation of the design. He/she will explain how the pin represents the state, its unique qualities and why another SkillsUSA student or adult member would want to wear it.

Plumbing
Contestants "rough-in" hot and cold water lines with copper tubing and "rough-in" sanitary drainage, waste and vent lines with cast iron and PVC plastic for a water closet, a lavatory, a washer box and a floor drain. Water pipes are pressure tested on completed projects. Professional plumbers and pipefitters judge the contestants on the basis of accuracy, workmanship, proper selection and use of tools and supplies, and proper safety procedures.

Power Equipment Technology
Tests the student's skills in all areas of this technology. They must know and understand both 2 & 4 cycle engines. They should know and understand the related theories that go along with the types of engines that they will come across in the industry. They should also understand drive trains, hydraulic, as well as wiring schematics. Contestants will need to be versed in customer service. As they rotate through the various stations they are judged and scored on both physical and oral skills. They are further tested with their ability to read and follow the job tasks that are given.

Practical Nursing
Contestants will demonstrate their ability to perform procedures/skills consistent with Practical Nursing competencies as determined by State Boards of Nursing. Contestants are judged on their knowledge of medical terminology, body structure and function, nutrition, medications and nursing care. They must also demonstrate their abilities to perform job skills such as: administration of oral, subcutaneous and nasogastric medications; physical assessment; insertion of a nasogastric tube; sterile dressing change and cardiopulmonary resuscitation. At each workstation they are judged on accuracy of their skill, organization, communication and safety.

Precision Machining Technology
Contestants will compete in NIMS Level I & II manual machining skills and knowledge areas including operation of manual milling machines, lathes, drill presses, and surface grinders. Contestant knowledge of CNC programming skills using a PC will be evaluated. Related knowledge and skill in the areas of engineering drawing interpretation, GD&T, technical math, machining practices, use of precision measuring/hand tools and ability to communicate verbally using proper industry terminology are also part of this competition.

Prepared Speech
Requires students to deliver a speech five to seven minutes in length on a common theme established by National SkillsUSA early in the school year. Contestants are evaluated on their ability to present thoughts relating to a central theme clearly and effectively, and on voice, mechanics, and platform deportment.

Preschool Teaching Assistant
Contestants will demonstrate their knowledge of developmentally appropriate practice and their ability to prepare and implement learning activities for children 3 to 5 years old. Contestants will prepare a written lesson plan and take a written test assessing their knowledge of child development and effective teaching strategies.

They will demonstrate their understanding of the unique age-related learning characteristics of young children and the relevant social interactions as they implement the lesson.

Principles of Technology
Evaluates contestants' understanding of basic technical concepts/principles of the applied sciences and ability to demonstrate and explain the concept/principle in action and application. Any technical concept may be demonstrated, provided it is related to the principles of technology curriculum and incorporates basic principles of the applied sciences.

Promotional Bulletin Board
Judges bulletin board displays created by SkillsUSA chapters based on the annual SkillsUSA theme. The bulletin boards promote SkillsUSA, career and technical education in general, and related occupational information. An accompanying notebook documents the development and construction of the bulletin board. An oral presentation explains the process, purpose and educational value.

Quiz Bowl
The Quiz Bowl tests a team of 5 competitors' ability to quickly respond to questions covering the areas of academic knowledge, professional development and current events. The participants respond to a question by activating a buzzer system. The teams receive one point for a correct answer and lose a point for each incorrect answer. The active rounds (preliminary and finals) are 100 questions each.

Related Technical Math
On a written test, contestants demonstrate skills required to solve mathematical problems commonly found in the skilled trades and professional and technical occupations. Skills demonstrated include addition, subtraction, multiplication and division of whole numbers, fractions and decimals; applied word problems; percentages; ratio proportions; averages; area; volume; metric measures and traditional (Imperial) measures and trigonometry.

Residential Systems Installation and Maintenance
This contest replaces Electronics Applications.
The contest is based on the CEA-CompTIA DHTI+ HT0-201 and will include a written exam assessing general knowledge of residential electronics installation and maintenance including smart house technologies. The skills performance event assesses the ability of the contestant to install, maintain and troubleshoot a variety of devices encountered in a residential setting. A practical problem(s) will be given to evaluate the contestant’s ability to function on a basic entry level. The hands-on section is also based on the CEA-CompTIA DHTI+ HT0-201 certification.

Robotics and Automation Technology
Challenges two-person teams to demonstrate operation of a five-axis servo-robot along with a set of sensors and motorized devices to resolve a simulated production process problem. Teams set up and demonstrate operation of a robotic workcell from a word problem. Contestants are required to create a flow chart and sequence of operation. Teams are also judged on efficiency, speed and teamwork.

Screen Printing Technology
Contestants are tested on their ability to prepare screens, register a multi-color design on a manual four color one station rotary press, and print a multi-color design on a manual six color four station rotary press. Contestants also complete a written technical knowledge test and participate in an oral professional assessment.

Sheet Metal
Contestants are tested on their ability to perform such jobs as connecting sheet metal pieces with drive cleats, spot welding and riveting. Skills tested may include,

but are not limited to, straight duct, transition fitting and 45-degree entry tap fitting. Professional sheet metal workers judge contestants on the use of hand tools, correctness of layout and shop safety procedures. Contestants will be judged on accuracy, completeness, and craftsmanship.

Sustainability Solutions Demo
To recognize outstanding Green technology innovation projects that have been developed by a two-member team of students. The student team will present its innovative idea along with a display and live model. A team would be required to document the idea generation process and be prepared to present the idea as well as the need for the project chosen.

T-shirt Design
The contest is designed to assess the ability of the competitor to design and produce a drawing of that design, as well as give a presentation regarding all aspects of his or her creation of the design.

TeamWorks
Teams of four students will be required to build a construction project, over three days, that will demonstrate their ability to work together as a Team. Each Team will be required to understand the project elements based on a detailed blue print and special instructions presented at the pre-competition orientation. Each Team must write an project completion "action plan" and will present their "action plan" as one of the "key" elements of the competition (all Team members must participate during the presentation). During the "construction project", the Team will demonstrate their ability to work together as a Team by using their carpentry, electrical, plumbing and masonry skills. Judging is based on the Team's presentation skills, ability to construct the project per "competition specified" building codes, jobsite safety and cleanliness, organized and correct ordering of materials from the competition material depot, proper use and accountability of tools and equipment and the rate of completion of the project for the Team. Teamworks is not only a Skills USA competition, but a way of learning, for each Team member, to help maximize their skills for their future.

Technical Computer Applications
Contestants will be expected to demonstrate installation, configuration and use of Windows, Mac OSX and Linux Professional Operating Systems and one or more integrated office suite packages including email, word processing, spreadsheet applications, database applications, web page development, money management applications, presentations applications, internet browser applications, etc. The use of Open source software such as OpenOffice will be preferable. Microsoft Office and other integrated office suites could be used. The utilization of instant messaging, collaboration and social networking software will be required during the contest. Contestants will be expected to perform in teams while demonstrating individual technical skills. The contest will include an oral presentation demonstrating the student's ability to communicate with others, a hands-on skills demonstration, and a one hour time allotted written examination.

Technical Drafting
This contest evaluates contestant's preparation for employment and recognizes outstanding students for excellence and professionalism in the field of technical drafting. The contest will focus on the solution of industry-developed problems by applying appropriate technical drafting skills and tools including computer-aided drafting (CAD).

Telecommunications Cabling
For students interested in voice and data network cabling and installation. This competition tests to worldwide industry standards for data and voice connections, physical and logical networks and signal transmission. Contestants demonstrate skills in reading network design documentation, parts list set- up and purchase, pulling and mounting cable, choosing wiring closets, patch panel installation and termination, installing jacks and cable testing. Both CAT 5/6e and fiber optics cable are presented. The contest stresses safety and working effectively in group environments as well as customer service skills.

Television (Video) Production
Teams of two contestants are required to plan and shoot a one-minute VHS video on location to convey the "theme" of the event. Editing is done in the contest

area with special emphasis on professional production of the video by industry standards, quality of audio and video, and adequate conveyance of the "theme" to the viewer.

Video Product Development
During the school year, teams of two produce a five to seven minute video that promotes one of the following: the positive aspects of a specific career/technical training program; the positive aspects of a specific career/technical school; or, the positive aspects of SkillsUSA. Team members are judged on their project planning, scripts, storyboards, camera techniques, editing, use of royalty-free music/sound/graphics, special effects, overall impressions, skill-related written test and interview. The on-site, hands-on portion of the competition requires each team to create a computerized storyboard of their project (video) using PowerProduction StoryBoard Quick software.

Web Design
The project will be for each team's to complete a series of challenges, with a focus on web site usability and accessibility with at least one challenge related to scripting. Each challenge must be documented, clearly demonstrating the skills as outlined in the SkillsUSA Championships Technical Standards 2010.

Welding
Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges; laying out a plate and using oxy-acetylene equipment to cut several holes that are checked for accuracy and quality; Gas Metal Arc Welding (GMAW) on steel making welds in various positions using short circuiting transfers; Flux Cored Arc Welding (FCAW) using a shielding gas, making welds in various positions and, using a combination machine capable of providing the correct welding current for shielded metal arc (SMAW) and gas tungsten arc welding (GTAW). Competitors complete the steel project and weld an aluminum project in various positions using a variety of filler metals.

Welding Fabrication
A team competition that requires three students from each school to use their welding and fabrication skills to build a designed project from the given material. Each team is required to be skilled in the following welding and cutting processes: SMAW, GTAW, GMAW, FCAW and OFC. The students are also required to be proficient in using the common tools of a workshop. A theme-based project will be constructed by the students based on the prints drawn by each team.

Welding Art/Sculpture
The contest is designed to assess the ability of the competitor to design and produce a sculpture of that design, as well as give a presentation regarding all aspects of his or her creation of the design.