



FIREFIGHTING



SkillsUSA Championships Technical Standards

PURPOSE

To evaluate each competitor's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of firefighting.

First, download and review the General Regulations at: <http://updates.skillsusa.org>.

ELIGIBILITY

Open to active SkillsUSA members enrolled in, work-based learning or community training programs with firefighting and/or public safety/protective service nexus as the occupational objective.

CLOTHING REQUIREMENTS

Class D: Competition Specific — Blue Attire

- Official SkillsUSA light blue work shirt
- Navy pants
Note: Must be work style pants (e.g. Dickie's) or BDU/tactical style (e.g., 5.11). Accompanied by black belt.
- Black, brown or tan leather work safety shoes
Note: Protective toe cap is not required. Shoes must be professional/police or tactical style boots. No tennis/running style shoes.

Note: Safety glasses must have side shields or goggles. (Prescription glasses may be used only if they are equipped with side shields. If not, they must be covered with goggles.)

These regulations refer to clothing items that are pictured and described at www.skillsusastore.org. If you have questions about clothing or other logo items, call 1-888-501-2183.

Note: Competitors must wear their official competition clothing to the competition orientation meeting. Competition day: Competitors must bring a complete set of firefighter personal

protective equipment (aka “turnout gear”) as listed below. As competitors will be donning and doffing turnout gear several times, they may wear:

1. Official SkillsUSA Class D (outlined above)
OR
2. Sweat/workout pants made of industry appropriate materials, close-toed and close-heeled shoes and plain T-shirt.

Clothing needs to be professional and sharp. Any identification of department, school, city, or state must be covered and should be avoided if possible.

EQUIPMENT AND MATERIALS

1. Provided by the technical committee: All necessary materials for the competition not specified elsewhere.
2. Supplied by the competitor:
 - a. Complete set of firefighter’s personal protective equipment, including:
 - 1.) Structure rated helmet with chin strap.
 - 2.) Eye protection appropriate for fire industry (face shield or other industry standard eye cover)
 - 3.) Bunker coat and pants with liners.
 - 4.) Standard fire boots (with steel toe/shank/shin guard)
 - 5.) Firefighter protective hood
 - 6.) Structure rated fire gloves
 - 7.) SCBA face piece

Note: Any identification of department, school, city, or state must be covered and should be avoided if possible.
 - b. Pen and No. 2 pencil
 - c. All competitors must create a one-page resume. See “Resume Requirement” below for guidelines.

RESUME REQUIREMENT

Competitors must create a one-page resume to submit online. SkillsUSA national competitors should submit their resume by June 1. The link for resume submission will be published on <http://updates.skillsusa.org> on May 1. Failure to submit a resume will result in a 10-point penalty.

Your resume must be saved as a PDF file type using file name format of “Last Name_First Name.” For example, “Amanda Smith” would save her resume as **Smith_Amanda**. If you need assistance with saving your file as a PDF, visit [the Adobe website](#) for more information.

Note: Check the Competition Guidelines and/or the updates page on the SkillsUSA website at <http://updates.skillsusa.org>.

PROHIBITED DEVICES

Cell phones or other electronic devices not approved by a competition's national technical committee are *NOT* allowed in the competition area. Please follow the guidelines in each technical standard for approved exceptions. Technical committee members may also approve exceptions onsite during the SkillsUSA Championships if deemed appropriate.

Penalties for Prohibited Devices

If a competitor's electronic device makes noise or if the competitor is seen using it at any time during the competition, an official report will be documented for review by the SkillsUSA Championships director. If confirmed that the competitor used the device in a manner which compromised the integrity of the competition, the competitor's scores may be canceled.

SCOPE OF THE COMPETITION

The competition is defined by industry standards as identified by the SkillsUSA technical committee.

The following is a list of materials used in the formation of the competition.

- IFSTA Manual Essentials of Firefighting, seventh edition
- NFPA 1001 Standard for Fire Fighter Professional Qualifications

KNOWLEDGE PERFORMANCE

The competition will include an exam assessing general knowledge of firefighting. A study guide will be posted in content updates by June 1st. Competitors are also required to take the SkillsUSA professional development test.

SKILL PERFORMANCE

The competition will include activities that simulate training and events encountered by firefighting professionals.

COMPETITION GUIDELINES

1. Each competitor must work independently without assistance from instructors, other competitors or observers. Contact with competitors must be coordinated through designated event staff only. Any violation of this may disqualify the competitor.
2. Cell phones, iPads/tablets, smart watches, wearable technology or any other electronic communication device are prohibited in the competition area. See "Prohibited Devices" section above for more details.
3. Only competitors, judges and event staff are allowed in the competition area at any time. Observation is limited to the area designated by the judges or event staff. Outdoor competition area may only be accessed by judges, competitors and event staff. Any violation of this may disqualify the competitor.
4. No one may contact judges in any way and at any time without the expressed permission of the competition coordinator.

Competition Day Outline

Note: these are not necessarily the order competitors will compete. Each station is separate from the others.

1. **Station One: Job Interview** — Competitors will complete a standard job interview for hire as an entry level firefighter. Competitors will wear their competition day clothing – no penalty for attire as competitors will be dressed for physical parts of competition. 100 out of 1,000 points total scored for the competition.
2. **Station Two: Ropes** — The candidate will wear full PPE minus SCBA and will use structural firefighting gloves while completing this skills test. 180 out of 1,000 points total scored for the competition (20 points each).
 - a. Half Hitch: Tie around the bar
 - b. Clove Hitch — Closed: Tie around the bar
 - c. Clove Hitch — Open: Tie the knot in hand and slip it over an object
 - d. Bowline: Tie around bar or tie in hand
 - e. Figure–Eight (aka Flemish) knot: Tie in hand and lay it over the bar
 - f. Figure–Eight on a Bight: Tie in Hand and lay it over the bar
 - g. Figure–Eight Bend (aka Flemish Bend or Figure–Eight Follow Through): Tie around the bar
 - h. Becket Bend (aka Sheet Bend) using two different sized ropes: Tie around the bar
 - i. Girth Hitch or Larks Head used for Hose Straps: Tie around the bar

Note: Review these knots at www.animatedknots.com.

3. **Station 3: Outside Circuit** — competitors may not run at any time. Sections should be 50' apart. The time for this stage is independent of the time from Stage 4. 310 possible points out of 1,000 points total scored for the competition.
 - a. Don full turnout gear — time starts on “go” from the judge. 80 assessed points.
 - 1.) Boots and Pants
 - 2.) Jacket
 - 3.) Hood
 - 4.) Facemask
 - 5.) Helmet
 - 6.) Gloves
 - 7.) SCBA
 - 8.) Air
 - b. Hose — 100 assessed points.
 - 1.) Connect hoses and nozzle as told
 - 2.) Charge
 - 3.) Angles 90, 45, 0
 - 4.) TZSO patterns
 - c. Fire Service Extension Ladder Raise (size may vary due to restrictions of competition site, but ideally 24'). 40 assessed points.
 - 1.) This skills test will demonstrate how quickly the candidate can correctly move into place and safely raise a fire service extension ladder. After raising the ladder correctly for time, the candidate will safely lower the ladder from the building.

- 2.) At the beginning of the test, the ladder will be on the ground, parallel to the building that is to be laddered, approximately 15' from the building as if it had just been removed from the fire apparatus and placed on the ground.
 - 3.) The candidate will use commands and raise the ladder safely. The candidate will return the ladder safely to its original position on the ground.
 - 4.) Note: A firefighter will be present to assist only as a spotter and safety backup. This spotter can be asked to assist with heeling or footing the ladder but must be asked. The spotter can also assist with heeling the ladder when it is lowered. The spotter is not to support or assist in any other way unless the ladder begins to get out of control.
 - 5.) End –when the ladder is raised into position, climbing angle is assessed and the halyard is tied off and the competitor claps their hands
 - d. Time — 100 points available out of 1,000 points total scored for the competition (see table below)
4. **Station 4: Indoor Circuit** — competitors may not run at any time. They will don full PPE, SCBA with no mask, eye protection and will use structural firefighting gloves – prior to starting the time. Each “stage” is 50 feet apart. The time for this stage is independent of the time from Stage 3. 310 out of 1,000 points total scored for the competition.
- a. Start time at Stage 1 when judge says “go”
 - b. Stage 1 BLS CPR: 2 minutes of AHA one person BLS. 50 assessed points.
 - c. Stage 2 Strike: 10 times using the tire hammer to strike a tire, swung overhead and counted out loud. 30 assessed points.
 - d. Stage 3 Knots & Hoist: two knots will be chosen prior from the list from Station Two above. There will also be a common tool that must be prepared for lifting and tagging. There should be 2 ropes available, one for lifting and one for a tagline. 1 rope can be used but must have a tagline. 100 assessed points.
 - e. A five-second penalty will be assessed for each knot or hitch that is incorrect and a 10-second penalty assessed if the tool is inverted or a tagline is not provided via incorrect knot placement.
 - f. Stage 4 Drag: mannequin drag – 160+ pounds for a total of 50’. Can be a hose dummy, Rescue Randy or similar. 50 assessed points.
 - g. Stop time when entire body of mannequin clears the finish line.
 - h. Time — 100 points available (see table below)
5. Time scores for Station 3 and Station 4: Note – this is NOT a combined time. Each station has its own time score. Each section (3 and 4) will add these points to their score total.
- | | |
|-------------|------------|
| 3:00 – 3:15 | 100 points |
| 3:15 – 3:30 | 95 points |
| 3:30 – 3:45 | 90 points |
| 3:45 – 4:00 | 85 points |
| 4:00 – 4:15 | 80 points |
| 4:15 – 4:30 | 75 points |
| 4:30 – 4:45 | 70 points |
| 4:45 – 5:00 | 65 points |
| 5:00 – 5:15 | 60 points |

5:15 – 5:30	55 points
5:30 – 5:45	50 points
5:45 – 6:00	45 points
6:00 – 6:15	40 points
6:15 – 6:30	35 points
6:30 – 6:45	30 points
6:45 – 7:00	25 points
7:00 – 7:15	20 points
7:30 – 7:45	15 points
8:00 – 8:15	10 points
8:15 – 8:30	5 points
Over 8:30	0 points

STANDARDS AND COMPETENCIES

The standards and competencies for this competition come from NFPA 1001 Standard for Fire Fighter Professional Qualifications specifically for FireFighter I. These standards are copyrighted and cannot be posted. To download these, sign up for a free account at NFPA <https://www.nfpa.org>.

FF 1.0 — SkillsUSA Framework.

The SkillsUSA Framework is used to pinpoint the Essential Elements found in Personal Skills, Workplace Skills and Technical Skills Grounded in Academics. Students will be expected to display or explain how they used some of these Essential Elements. Please reference the graphic above, as you may be scored on specific elements applied to your project. For more, visit: www.skillsusa.org/about/skillsusa-framework/.



COMMITTEE IDENTIFIED ACADEMIC SKILLS

The technical committee has identified that the following academic skills are embedded in this competition.

Math Skills

- Use fractions to solve practical problems
- Use proportions and ratios to solve practical problems
- Measure angles
- Find surface area and perimeter of two-dimensional objects

Science Skills

- Plan and conduct a scientific investigation
- Describe basic needs of organisms
- Describe and identify physical changes to matter
- Use knowledge of heat, light and sound energy
- Use knowledge of temperature scales, heat and heat transfer

- Use knowledge of simple machines, compound machines, powered vehicles, rockets and restraining devices

Language Arts Skills

- Provide information in conversations and in group discussions
- Demonstrate use of such verbal communication skills as word choice, pitch, feeling, tone and voice
- Demonstrate use of such nonverbal communication skills as eye contact, posture and gestures using interviewing techniques to gain information

CONNECTIONS TO NATIONAL STANDARDS

State-level academic curriculum specialists identified the following connections to national academic standards.

Math Standards

- Geometry
- Measurement
- Problem solving
- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School Mathematics. For more information, visit: www.nctm.org.

Science Standards

- Understands forces and motion
- Understands the nature of scientific inquiry

Source: McREL compendium of national science standards. To view and search the compendium, visit: <http://www2.mcrel.org/compendium/browse.asp>.

Language Arts Standards

- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students use spoken, written and visual language to accomplish their own purposes. (e.g., for learning, enjoyment, persuasion and the exchange of information.)

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: www.ncte.org/standards.