



HEALTH KNOWLEDGE BOWL



SkillsUSA Championships Technical Standards

PURPOSE

To test the knowledge of a team of competitors preparing for employment in the health occupations field and to recognize outstanding students for excellence and professionalism.

First, download and review the General Regulations at updates.skillsusa.org.

ELIGIBILITY (TEAM OF FOUR)

Open to a team of four (4) active SkillsUSA members from the same local chapter (school) enrolled in a program with a health career as an occupational objective. Each state may send one high school and one college/postsecondary entry. A full team must be registered. See General Regulations for more information about substitution and penalty rules.

CLOTHING REQUIREMENTS

Class A: SkillsUSA Official Attire

- Official SkillsUSA red blazer or official SkillsUSA red jacket
- Button-up, collared, white dress shirt (accompanied by a plain, solid black tie or SkillsUSA black tie), white shirt (collarless or small-collared) or white turtleneck, with any collar not to extend into the lapel area of the blazer, sweater, windbreaker or jacket
- Black dress slacks or black dress skirt (knee-length at minimum)
- Black closed-toe dress shoes

Note: The official SkillsUSA windbreaker, sweater and black Carhartt jacket are no longer available for purchase in the SkillsUSA Store. However, these clothing items are grandfathered in as previous official SkillsUSA clothing and can be worn in SkillsUSA competitions as directed in this document.

Note: Wearing socks or hose is not required. If worn, socks must be black dress socks and hose must be either black or skin-tone and seamless/nonpattern.

These regulations refer to SkillsUSA Championships Clothing Classifications that are pictured and described at skillsusastore.org. If you have questions about competition uniforms, call the SkillsUSA Store at 888-501-2183.

Note: Competitors must wear their official competition clothing to the competition orientation.

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee:
 - a. A device with a HDMI port (such as a projector/screen, television, or other similar device)
2. Supplied by the team:
 - a. 8½" by 11" blank white paper (enough for the competition)
 - b. 8½" by 11" blank colored paper for use as scrap paper
 - c. Pens, pencils, and black marking pens (no ultrafine markers)
 - d. Calculator four function or scientific acceptable (cannot be a graphing calculator or a cellphone)
 - e. All competitors must create and submit online a one-page single sided resume. See "Online Submission Requirements" below for guidelines.

Note: No notes or reference materials of any kind will be permitted in the competition area. Failure to bring the required team supplies will result in a 10-point penalty.

Note: All national competitors must also check for competition-specific updates and/or competitor preparation instructions on the SkillsUSA website at updates.skillsusa.org.

PROHIBITED DEVICES

Cellphones, electronic watches and/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 Director of the SkillsUSA Championships. If confirmed that the competitor used the device in a manner which compromised the integrity of the competition, the competitor's scores may be removed.

ONLINE SUBMISSION REQUIREMENTS

All SkillsUSA national competitors must submit their one-page single sided resume online. The deadline and link for online submissions will be published on updates.skillsusa.org.

Failure to submit any of the required document(s) listed below by the established deadline will result in a 10-point penalty.

1. One-page single sided resume

Your submission must be saved as PDF file type using the file name format of “Your Last Name_Your First Name_Resume.” For example, “Amanda Smith” would save the individual PDF submissions file as:

- Smith_Amanda_Resume

OBSERVER RULE

The technical committee reserves the right to allow or prohibit observers into competition area(s). If allowed, no observer may enter or exit the competition area while a competitor is presenting. Observers are not allowed to talk to or make gestures to competitors. No videotaping or photography is allowed during the competition. All phones and electronic devices must be silenced and put away. The competition staff reserves the right to request any observer to leave if they are perceived as a distraction.

SCOPE OF THE COMPETITION

Standards from the National Consortium for Health Science Education make up the categories from which questions are developed for the Health Knowledge Bowl competition. To view the standards, visit healthscienceconsortium.org/standards.

KNOWLEDGE PERFORMANCE

The competition will include a test assessing knowledge of general healthcare concepts. Competitors are also required to take the SkillsUSA Professional Development Test.

SKILL PERFORMANCE

Teams will demonstrate communication skills, teamwork, problem-solving, and time management skills by determining and presenting the answer to each question presented during the performance portion of the competition.

COMPETITION GUIDELINES

1. Competition orientation
 - a. Competitors will be assigned appointment times. Appointments may be randomly pre-assigned by the technical committee or drawn during the competition orientation.
 - b. A knowledge test will be administered at the end of orientation.
 - 1). The test will be completed as a team.
 - 2). The team will have one (1) hour to complete the exam.
 - 3). The test score will not be announced.
2. General Information
 - a. It is the responsibility of all team members and advisors to know the rules of the competition.
 - b. The team may perform with three (3) members in the event a member fails to show up or is forced to withdraw within five (5) days of the competition. See General Regulations for more information about substitution and penalty rules.

- c. The competition will be two rounds consisting of 28 questions in the first round and 27 in the second round, for a total of 55 questions worth 15 points each.
 - d. There will be a 15-minute break between the first and second rounds.
 - e. Use of mobile devices, cellphones, recording devices, and/or smart watches or other items deemed hazardous to the integrity of the competition are grounds for disqualification.
 - f. Competitors will turn in all paper(s) which will be taken up by the officials before leaving the competition area.
 - g. Resource books used to develop the competition questions will be provided for the judges' reference if needed.
3. Bowl Rounds
- a. The total possible bowl score is 825 points.
 - 1). Each team will begin each round with 0 points.
 - 2). Each team will receive a score of 15, zero (0), or -15 on each question, based on whether they answer the question correctly, incorrectly, or pass.
 - b. Questions will be read once and visually displayed.
 - 1). The team will have 30 seconds after the question has been read to confer and write the answer.
 - 2). A five-second warning will be given before time is up.
 - 3). A team may choose to answer the question or not answer the question.
 - c. If the team chooses to answer the question
 - 1). Team members must not start writing or using the calculator until the entire question has been read.
 - 2). Teams may discuss answers among themselves. Competitors are cautioned to whisper to avoid being overheard by other teams.
 - 3). Any team member may write the answer.
 - a) It must be written legibly and large enough to be seen by the floor judge.
 - i.) Answers must be spelled correctly. Spelling errors will be counted as an incorrect response and may not be challenged.
 - b) They must complete writing the answer and then stand before time is called.
 - i.) No team member may stand before the writer has completed the answer.
 - c) The team member will display the answer when directed to do so by a judge.
 - i.) The reader will announce the correct answer.
 - ii.) The floor judge will check the team answer.
 - iii.) If correct, the scorer will add 15 points to the team's score.
 - iv.) If incorrect, the scorer will subtract 15 points from the team's score.
 - d. If the team chooses **not** to answer the question
 - 1). If no team member is standing prior to the end of the allotted time, it will be considered a pass.
 - a) Teams will be allowed to not answer/pass two (2) questions per round and receive a 0 score for that question.

- b) If the team does not answer a question after the two (2) passes have been awarded, (signified by remaining seated), this will be recorded as a wrong answer and 15 points will be deducted.
- 4. Challenges
 - a. Teams will be allowed a total of 2 challenges per round.
 - b. A team that wishes to challenge a score or an answer must address the issue with the floor judge before the next question begins.
 - 1). This is signified by the team captain standing and raising their hand prior to the next question being read.
 - a) The judge will recognize the team and the team captain will have one minute to record the rationale for the challenge on the other side of the paper as the answer.
 - b) The team number and the question number will be recorded, and the paper will be handed to the judge.
 - c. Challenges will be reviewed after the bowl is complete.
 - 1). Accepted challenges will be acknowledged during the debriefing.
- 5. Final scores
 - a. Final scores include the total score of the two rounds plus the knowledge test score, less penalties.
 - 1). If needed, a tie will be broken based on the team with the highest knowledge test score.
 - b. The judging team will make all decisions regarding score, correct answers, and rule violations. Disqualification may result from repeated rule violations. The decision of the judging team will be final and will be announced by the competition chair.

STANDARDS AND COMPETENCIES

BOWL 1.0 — Answer questions from the academic foundations outlined by the National Consortium for Health Science Education (NCHSE).

- 1.1. Apply knowledge of human structure and function, diseases and disorders, growth and development, vital signs, nutrition and therapeutic diets, medical terminology and abbreviations, mathematical computations and English language arts to answer questions.

BOWL 2.0 — Recall the knowledge of oral and written communication skills to answer questions.

- 2.1. Identify the elements of communication skills to answer questions.
- 2.2. Demonstrate effective written communication skills.
- 2.3. Identify concepts of active listening.
- 2.4. Identify concepts of verbal and nonverbal communication.
- 2.5. Demonstrate knowledge of interviewing skills.
- 2.6. Identify barriers to communication.

BOWL 3.0 — Use knowledge gained from reading current events affecting health care to answer questions regarding systems theory and health care delivery systems.

- 3.1. Describe systems theory and its components.

- 3.2. Predict where and how factors such as cost, managed care, technology, an aging population, patient access to care, alternative therapies and lifestyle/behavior changes may affect various health care delivery system models.

BOWL 4.0 — Employ knowledge of key employability skills as they relate to the healthcare industry.

- 4.1. List and explain key employability skills using examples such as dynamics of change, personal qualities, problem-solving and critical-thinking skills.
- 4.2. Identify elements of successful interpersonal communications such as communication strategies, listening behaviors, written communication and nomenclature.
- 4.3. Recall stages and elements of personal growth and development.
- 4.4. Explain the career decision-making process as it applies to health care.

BOWL 5.0 — Know the legal responsibilities, limitations and implications of employee actions within the health care delivery setting.

- 5.1. Compare and contrast behaviors and practices that could result in malpractice, liability and negligence.
- 5.2. Identify concepts of legal practice such as Resident/Patient's Bill of Rights, informed consent, scope of practice and standards of workplace safety. (Occupational Safety and Health Administration/OSHA and Centers for Disease Control/CDC)
- 5.3. Explain the importance of maintaining client confidentiality.
- 5.4. Describe legal requirements for documentation.

BOWL 6.0 — Understand accepted ethical practices.

- 6.1. Describe morality and ethics and the relationship of each to health care outcomes.
- 6.2. Explain the difference between ethical and legal issues impacting health care.
- 6.3. Demonstrate the knowledge of ethical practice such as professionalism, interdisciplinary roles, incident reporting, abuse and Patient's Bill of Rights.
- 6.4. Demonstrate knowledge of providing care to patients from diverse religious and ethnic backgrounds.
- 6.5. Analyze legal and ethical aspects of confidentiality.

BOWL 7.0 — Describe how to implement safety practices to prevent injury or illness.

- 7.1. Explain standard precautions as described in the rules and regulations set forth by OSHA to control the spread of infection.
- 7.2. Discuss the principles of body mechanics and ergonomics and how they relate to personal safety in the healthcare industry.
- 7.3. Describe methods of environmental safety as they apply to the healthcare industry.
- 7.4. Explain common safety hazards and methods of managing them.
- 7.5. Explain common emergency procedures and protocols.

BOWL 8.0 — Understand the roles and responsibilities of health care teams and how teamwork affects the ability to provide quality health care.

- 8.1. Characterize the elements of effective teams.
- 8.2. Contrast the elements of effective health care teams to those of ineffective teams.

- 8.3. Explain the value of team member participation such as inclusiveness, collaboration, conflict resolution, commitment and team identity.
- 8.4. Work collaboratively with other team members.
- 8.5. Honor the contributions and strengths of others.
- 8.6. Honor personal commitments and responsibilities to the team.
- 8.7. Foster positive and collaborative working relationships with others.

BOWL 9.0 — Know the fundamentals of wellness and prevention of disease processes.

- 9.1. Describe alternative and complementary health practices.
- 9.2. Describe the practices that promote the prevention of injury and diseases.

BOWL 10.0 — Project a professional self-image through attire and grooming.

- 10.1 Demonstrate a professional appearance in dress, good grooming, and personal presentation.
- 10.2 Display clothing that meets national standards requirement for competition.
- 10.3 Demonstrate good grooming in personal hygiene.
- 10.4 Wear clothing that fits well.
- 10.5 Present a wrinkle-free appearance.

BOWL 11.0 — 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. For more, visit:

www.skillsusa.org/who-we-are/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.
- Solve practical problems involving percentages.
- Solve problems using proportions, formulas and functions.

Science Skills

- Use knowledge of patterns of cellular organization (cells, tissues, organs, systems).
- Describe the basic needs of organisms.
- Use knowledge of chemical properties (acidity, basicity, combustibility, reactivity).
- Describe and use the Periodic Table —symbols, atomic number, atomic mass, chemical families (groups) and periods.
- Human anatomy
- Human physiology
- Human path psychology (disease)

- Human growth and development
- Nutritional concepts
- Vital signs concepts

Language Arts Skills

- Provide information in conversations and in group discussions.
- Provide information for oral presentations.
- Demonstrate the use of verbal communication skills: word choice, pitch, feeling, tone and voice.
- Edit writing for correct grammar, capitalization, punctuation, spelling, sentence structure and paragraphing.

CONNECTIONS TO NATIONAL STANDARDS

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

Math Standards

- Numbers and operations
- Measurement
- Communication
- Connections
- Representation

Science Standards

- Understands the principles of heredity and related concepts.
- Understands the structure and function of cells and organisms.
- Understands relationships among organisms and their physical environment.
- Understands biological evolution and the diversity of life.
- Understands the structure and properties of matter.
- Understands the sources and properties of energy.
- Understands the nature of scientific knowledge.

Language Arts Standards

- Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).

- 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 employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.
- Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Students participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.
- 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