



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: <http://updates.skillsusa.org>.

ELIGIBILITY (TEAM OF FOUR)

Open to a team of four (4) SkillsUSA members enrolled in a program with a health career as an occupational objective.

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 no longer 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 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.

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. 60 sheets of 8½"x11" white blank paper
 - b. 8½"x11" blank colored paper for use as scrap paper
 - c. Pens, pencils, and black marking pens (four to six of each)
 - d. Calculator (cannot be on cellphone)
 - e. All competitors must create a one-page resume. See "Resume Requirement" below for guidelines.

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

RESUME REQUIREMENT

Competitors must create a one-page resume to submit online. SkillsUSA national competitors should submit their resume by the deadline published on the competition updates page of our website. The deadline and link for resume submission will be published on <http://updates.skillsusa.org>. 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](http://the.adobe.com) for more information.

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

OBSERVER RULE

Observers may be allowed in the competition room, if permitted by the technical committee. Observers may not record or take pictures of the questions or students during the bowl. The judges will have authority to ask an observer to leave, should they feel the observer is interfering with a team or the competition.

SCOPE OF THE COMPETITION

Core standards from the [National Consortium for Health Science Education](#) make up the categories from which questions are developed for the Health Knowledge Bowl competition.

KNOWLEDGE PERFORMANCE

A written knowledge test will be administered during the competitor briefing. **This test will be completed as a team. The team will have ONE HOUR to complete the exam.** The score from the written test will not be announced but will be added to the final total score. Content for the written exam is based upon the standards identified by the National Health Science Standards. Competitors are 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 quiz bowl portion of the competition.

COMPETITION GUIDELINES

1. General

- a. A state may enter one high school team and one college/postsecondary team comprised of four registered members each. The team may perform with three members in the event a member fails to show up or is forced to withdraw within five days of the competition, with a possible penalty, as outlined in the SkillsUSA Championships General Regulations.
- b. The competition will be two halves consisting of 28 questions in the first half and 27 in the second half for a total of 55 questions worth 15 points each.
- c. There will be a 15-minute break between the first and second halves.
- d. Competitors will turn in all paper which will be taken up by the officials before leaving the competition area.
- 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.

2. Scoring

- a. Each team will begin each half with 0 points.
- b. A team may choose to answer the question or not answer the question.
- c. If a team chooses to answer and is correct, the team will be awarded 15 points. If a team chooses to answer and is incorrect, 15 points will be deducted. Total possible bowl score is 825.
- d. Teams will be allowed to not answer/pass two (2) questions per half and receive a 0 score for that question.
- e. 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.
- f. The judges will make the scores visible to all teams before the start of the second half of the bowl.
- g. Score discrepancies must be addressed by the team captain.
- h. A written test will be worth 150 points and administered during the competitor briefing. This test will be completed as a team. The score from the written test will not be announced but will be added to the final total score.
- i. The winning team is that team which has accumulated the highest total points (total score plus written test score, less penalties).
- j. In the event of a tie, the tie will be broken based on the team with the highest written test score.

3. Marking Answers

- a. The answer will be written on a sheet of paper. It must be written legibly and large enough to be seen by the floor judge.
- b. Any team member may write the answer. The member must not start writing the answer until the entire question has been read. He/she must complete writing the answer and then stand before time is called. No team member may stand before the writer has completed the answer.
- c. The question will be read once and visually displayed. The team will have 30 seconds after the question has been read to determine and write the answer. A five-second warning will be given before time is up. A team member must be standing with the answer before time is called.
- d. If a team member is not standing prior to the end of the allotted time, it will be considered a pass for the two (2) questions per half. If the passes have already been used, it will be scored as an incorrect answer, and 15 points will be deducted.
- e. Teams may discuss answers among themselves. Competitors are cautioned to whisper to each other so they're not overheard by other teams.
- f. Answers must be spelled correctly. Spelling errors will be counted as an incorrect response.

- g. The team member will display the answer when directed to do so by a judge. The reader will announce the correct answer. The floor judge will check the team answer. If correct, the scorer will add 15 points to the team's score. If incorrect, the scorer will subtract 15 points from the team's score. If the team chooses not to answer the question, they will receive a '0' score. This is allowed for two (2) questions per half. Any unanswered questions after the two (2) 'Passed' questions will be scored as an incorrect answer and 15 points will be deducted from the team score.

4. Judging

- a. The judging team will make all decisions regarding score, correct answers, and rule violations. The decision of the judging team will be final and will be announced by the competition chair. Disqualification may result from repeated rule violations.
- 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. This is signified by the team captain standing and raising his or her hand prior to the next question being read. 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. The team number and the question number will be recorded, and the paper will be handed to the judge. Challenges will be reviewed after the bowl is complete. Team advisors will be notified of the challenge decision and whether the decision affected the total score.
- c. It is the responsibility of all team members and advisors to know the rules of the competition.
- d. Resource books used to develop the competition questions will be provided for the judges' reference if needed.

STANDARDS AND COMPETENCIES

Core standards from the National Health Care Core Skill Standards comprise the categories from which the questions will be developed for the Health Knowledge Bowl competition.

BOWL 1.0 — Answer questions from the academic foundations outlined by the National Health Care Core Skill Standards (NHCCSS) Project.

- 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.

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 — 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, as you may be scored on specific elements applied to your project. 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 in 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.