

6901 SAFETY – CAREER AND TECHNICAL EDUCATION LABS

BOARD POLICY:

Section A: Laboratories will be equipped with safety devices and all precautions will be taken to maintain and protect the health and welfare of Career and Technical Education students. Staff and students must be in compliance with the rules, regulations, and law governing safety and health. The administration will initiate activities to implement Occupational Safety and Health Act standards, Uniform Fire Code, Life Safety Code, and ADA/Section 504 requirements pertaining to Career and Technical Education as funds permit.

Please see **Section B** (page 3) for guidance on Construction and Launching of Model Rockets.

Administrative Implemental Procedures:

1. Career and Technical Education will initiate *Requests for Maintenance* and cooperate with School Service Center Facilities personnel to rectify any safety problem in the respective Career and Technical Education laboratories in the schools.
2. Students must pass a written safety test for each piece of equipment to be used.
 - a. The tests in the *Kansas Safety Education Handbook* will be the standard for all curriculum areas.
 - b. Test results are to be kept on file in the teacher's/instructor's office until the end of the current school year.
 - c. Students will be tested annually.
 - d. Students may use power equipment only under the close supervision of a teacher certified in the use of that equipment.
3. Safety guard devices will be used on all circular saws, radial arm saws, planers, jointers, and any other machine tools for which a safety device has been designated and accepted as standard.
4. All exposed drive belts on air compressors and machine tools must be covered with appropriate safety guards.
5. No student will be allowed to work with molten metals unless they are protected with gloves, knee leggings, apron, and face shield.
6. No student will be allowed to work with hot metals without eye protective devices.
7. The spraying of paint or other combustible materials must be done in laboratory areas that were designed and are approved for that purpose.
8. All gas-fired appliances, including heat treating furnaces, foundry furnaces, and forge furnaces, will be equipped with approved automatic safety devices.
9. Storage of compressed combustible gases, such as oxygen and acetylene, will not be located less than 20 feet from open flames, except in specifically approved storage facilities.
10. Storage of oxygen and acetylene gases will be limited to two cylinders of each per laboratory unless manifold systems exist.

11. Installation of oxygen and acetylene manifolds and storage of compressed gases will be completed by these recommendations:
 - a. Oxygen acetylene manifolds are to be located so that any combustible material, grease, or oil is at least 20 feet away.
 - b. When special approved storage facilities are not used, the aggregate capacity of each manifold should be limited to six cylinders – three of oxygen and three of acetylene. No more than two cylinders of each are to be connected to the manifold, and one cylinder may be kept in storage at the same location. All cylinders are to be anchored securely.
 - c. Piping from cylinder hookup to welding area is to be of rigid iron or steel.
 - d. Flame arrester is to be located near cylinder hookup and shutoff valve is to be provided in each line near the welding area.
 - e. Each manifold supply is to be separated by at least 20 feet, or, if located in the same area, be separated by brick or cinder block wall at least five feet high.
12. Paint and thinners will be stored in an approved metal cabinet with doors.
13. All liquids with low flash points will be contained in metal containers with spring latch lids.
14. Oily and soiled wiping cloths will be contained in an approved flip-top waste can.
15. Sandals and other footwear that do not provide proper protective covering of the top of the foot will not be worn in the laboratories where there is danger of hot, sharp, and heavy materials being dropped.
16. Students with long hair are required to contain their hair in hats or hairnets or fasten the hair securely in the back of the head when using machines having exposed revolving parts or when in close proximity to other students using such machines.
17. The teacher will be responsible for teaching the safety rules for the handling of all machine tools in the laboratory prior to the student's using the machine tools. The student must successfully pass an objective test with 100% accuracy and show evidence of being knowledgeable of the safety rules prior to using the machine tools.
18. All furnished safety devices, protective apparel, etc., should be requested on the building/site budget by the instructor or building department coordinator.

Section B: Construction and Launching of Model Rockets. Model rockets may be designed, constructed, and launched by CTE students if the model is an essential aspect of the curriculum design.

Administrative Implemental Procedures:

1. Permission to launch model rockets has been granted by the Federal Aviation Administration and the Chief Fire Marshal, City of Wichita, Kansas, provided there is strict adherence to the following:
 - a. All rules described in the NFPA No. 1122 Code for Model Rocketry, written by the National Fire Protection Association, must be observed.
 - b. The teacher of the class must submit to the City Fire Marshal previous notice of the time and location of each launching.
 - c. Flight areas will be located in areas that will not create a hazard to persons and property in the vicinity of the launching.
 - d. Rockets are to be designed and constructed to meet the following specifications:
 - (1) Rockets are not to exceed a ceiling of 300 feet.
 - (2) A solid propellant rocket motor will contain no more than 62.5 grams (2.2 oz.) of propellant materials.
 - (3) Only a commercially manufactured, solid propellant rocket engine in which ingredients of a combustible nature are preloaded may be used.
 - (4) Body of rocket will be constructed of wood, plastics, paper, rubber, or similar materials and without any metal structural parts.
 - (5) A model rocket will not contain any type of explosive or pyrotechnic warhead.
 - e. Rockets are to be launched only by a remote electrical device; between launchings, the teacher will disconnect battery leads.

Administrative Responsibility: Secondary Education Office – Career and Technical Education
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