

Safety in the Scene Shop for School Theatre Programs

By Dana W. Taylor on February 13, 2020

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A well-equipped theatrical scene shop is a tremendous asset to any school theatre program. Equipment should be suitable to the tasks envisioned and in good working order, and a viable training program is essential for students to attain skills needed for a career backstage. However, the self-evident work and talent of the student performers often is the sole point of reference and gauge for the typical audience member.

Virtually no one will even think about dust-collection systems, personal protective equipment (PPE), rigging inspections, training by qualified personnel or whether or not there is a budget for the repair and replacement of equipment. Sadly, even some theatre teachers don't know to ask for such things, and are unaware of the requirements and guidelines identified by the industries that manufacture and sell the equipment.

The Shop

The scene shop itself should be set up for ease and safe use by the students and staff. How efficiently and safely that process is carried out will be impacted by several factors. First, determine what is built most frequently and the tools and space required to accomplish those tasks. Also consider:

1. Traffic patterns and how they impact access to both materials and equipment. Failure to address this can result in trip hazards, double-handling of materials and materials in the way of work to be done. Think about how materials enter your shop, where they are stored, your access to them when building and their storage upon completion.
2. Where the stationary tools are placed, and how much space they require, their power requirements and how will workflow be enhanced.
3. Storage requirements for material and access that is unimpeded and free of trip hazards. (See OSHA publication 2236)

Maintaining the Shop

Keeping the scene shop safe and efficient requires careful attention to detail:

1. Cleanliness, including dust-removal systems, clear walkways and work areas.
2. Tool maintenance, upkeep and replacement.

3. Appropriate storage for paints, solvents and other chemicals.

4. Posting of Safety Data Sheets (SDS) and other applicable safety signage.

5. Keeping a logbook of tool issues and maintenance.

Personal Protective Equipment

Efforts to protect student workers often depend on common sense/common practice solutions. These typically include appropriate attire, no dangling jewelry and hair confined or tied back. However, the regulations/standards for the use of Personal Protective Equipment (PPE) are far more specific and include:

1. Eye/Face protective equipment (safety glasses, goggles and face shields)

2. Hearing protective equipment (earmuffs, ear plugs)

3. Gloves appropriate to the task being performed

4. Respiratory protective equipment

5. Head protective equipment

6. Foot protective equipment

7. Electrical protective equipment

8. Fall protective equipment

It is an employer's responsibility to provide PPE to its workers. However, the Occupational Safety and Health Administration (OSHA) doesn't mandate the same standard for students. Check with the school district to see how PPE has been addressed for other programs. For more complete information, refer to OSHA publication 1910: Subpart I.

A word about ventilation. In all likelihood, the scene shops in most schools do not have appropriate ventilation for some commonly performed tasks such as spray painting, welding or foam cutting. Going outside to do the work may be an acceptable workaround, but consulting with the school district for guidance is recommended. Understand that if the work cannot be done safely, it should not be done.

Creating a Culture of Safety

Creating a culture of safety often begins with the identification and implementation of task-specific procedures and protocols for the work to be done. These protocols have been created to follow recognized industry safety standards, safe practice guidelines from equipment manufacturers and the input of subject matter experts. Standards and procedures exist for all work done in the theatre. Good places to find these include:

The Power Tool Institute (www.powertoolinstitute.com). The Institute offers lesson plans, training videos and signage free of charge.

1. The Technical Standards Program of the Entertainment Services and Technology Association (<https://tsp.estta.org>). The standards cover a variety of activities including atmospheric effects, rigging, and fall arrest and prevention.
2. Career Technology Education (cteonline.org). A repository of lesson plans and resources that reflect work done in the theatre.
3. Online Stage Safety Course being offered in 2020 by the NFHS and in partnership with The Educational Theatre Association (EdTA). The course will cover a broad area of topics related to safe practice in the theatre.

Training and Documentation for Students and Teachers

Student training and the documentation of skills and knowledge are nothing foreign to educators. In theatre, however, teachers often rely on the students who “know how” to do things to perform the work. At least we think they know. If we are accepting the responsibility for the well-being of students, we must be certain about their skills, the quality of their training and whether those skills have been documented. This may be as simple as having an industrial arts teacher sign-off on a student, or as complex as holding a workshop on using a tool, testing for knowledge and skill, and noting it in the logbook.

The same applies to the teacher. What tools/systems do you know how to use, where and how did you learn this skill, and can you prove it? It may be embarrassing if you don’t know how to program your lightboard, but it is a potential accident and/or lawsuit if you are allowing students to use tools and/or systems you know little about.

Training for educators, especially for technical aspects of theatre, is not as easy to come by. You may wish to check on continuing education classes available through local universities or summer workshops offered by EdTA or the U.S. Institute of Theatre Technology (USITT). Additional courses and testing are available online, and are listed below.