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#### ABSTRACT

This document contains guidelines that help Oregon schools meet the components of Oregon Administrative Rule 581-22-706, Emergency Plans and Safety Programs. The standard mandates that Oregon schools shall maintain a comprehensive safety program for all employees and students. School districts may alter the guidelines provided in this guidebook to fit local needs. Information is presented on classroom safety instruction, safety for the disabled, fire and earthquake safety and emerg ncy procedures, emergency preparedness, building and site inspection procedures, building modifications, laboratory and playground safety, and vehicle safety-inspection procedures. A list of sources of help is provided. Sample policies and procedures are offered for the following: a comprehensive safety program; emergency plan; accident-prevention instruction; and safety devices, instruction, and inspections. Sample forms, checklists, and curriculum-safety handouts are also provided. (LMI)



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# **Standards Guidelines**

# Safety in Oregon Schools OAR 581-22-706

Oregon Department of Education Salem, Oregon 97310-0203



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# FOREWORD

Students and adults alike need to feel safe in schools if quality learning is to take place. Safety consciousness depends on everyone, so children must learn what constitutes a safe environment. To reinforce what they learn, their schools should be models of safety principles.

The guidelines on the following pages address Oregon Administrative Rule 581-22-706, Emergency Plans and Safety Programs. Checklists and other useful information are offered concerning school safety. Districts are free to use or modify the suggestions in these guidelines to best suit local needs.

Questions concerning safety should be directed to Roberta Hutton, Assistant Superintendent, Office of Curriculum, Instruction and Field Services, 378-8004.

Norma Paulus

State Superintendent of Public Instruction



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# **Reminder:**

The samples on the following pages are suggestions only; districts may alter them to best serve local conditions.



# SAFETY IN OREGON SCHOOLS

#### The Standard\*

#### **Emergency Plans and Safety Programs**

**581-22-706** The school district shall maintain a comprehensive safety program for all employes and students which shall:

(1) Include plans for responding to emergency situations.

(2) Specify general safety and accident prevention rocedures with specific instruction for each type of classroom and laboratory.

(3) Provide instruction in basic emergency procedures for each laboratory, shop and studio, including identification of common physical, chemical and electrical hazards.

(4) Require necessary safety devices and instruction for their use.

(5) Require that an accident prevention inservice program for all employes be conducted periodically and documented.

(6) Provide assurance that each student has received appropriate safety instruction.

(7) Provide for regularly scheduled and documented safety inspections which will assure that facilities and programs are maintained and operated in a manner which protects the safety of all students and employes.

(8) Require reports of accidents involving school district property or involving employes, students or visiting public, as well as prompt investigation of all accidents, application of appropriate corrective measures and monthly and annual analyses of accident data and trends.

# Safety is an Attitude

A safe and healthful school environment depends upon the "safety consciousness" of all school employes and students. Employes and students should be reminded to be alert to safety and health hazards. They should be familiar with preventive measures to reduce the hazards and be ready for problems and accidents with clear emergency procedures. Safety is everybody's responsibility. All employes and students should:

Know the district safety policies and the specific procedures that are appropriate.

Know the district emergency plan and the specific duties that are appropriate.

Know the location of fire extinguishers, fire and earthquake alarm signaling devices, first aid kits, fluid spill kits, or supplies, telephones and telephone numbers for securing assistance.

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Safety-related rules, OARs 581-22-280 through 581-22-288 were repealed following the adoption of 581-22-706 on February 22, 1980, effective September 1, 1980.

Make full use of safeguards provided and avoid operating equipment when safeguards are not in place or in good working condition.

Make full use of protective equipment (headgear, eye wear, clothing, etc.) when required by the school district or appropriate safety codes.

Avoid removing, defacing or destroying any warning or danger sign; signs should not interfere with any form of accident-prevention device or practice.

Report unsafe conditions to supervisors or take immediate corrective action when situations require it.

Moreover, some staff members will be assigned particular responsibilities. Many of these responsibilities are specified or inferred in the suggested policy statements and checklist items beginning on page 15.

#### **District Rules for Safety**

Safety rules for employes and students should be developed in keeping with individual duties or activities. Rules may vary according to conditions locally, but they must meet the requirements of the law. *Employers* are responsible for providing safe employment conditions. Oregon-Occupational Safety and Health Act (OR-OSHA) can provide suggested safety codes for various jobs and facilities. (Address, page 4.)

OR-OSHA safety consultants will answer questions and, on request, review possible health or safety concerns to help find ways to eliminate them. Districts may request assistance from the safety consultants. State Accident Insurance Fund (SAIF) also provides free risk management, industrial hygiene and indoor air quality consultative services.

OR-OSHA poster Number 1188 must be posted in each building where employes work. These posters, copies of the Oregon Safe Employment Act (OSE Act), and other information may be obtained from OR-OSHA district offices in Portland, Salem, Eugene, Medford, Bend and Pendleton.

School districts also may request more comprehensive, courtesy inspections by phoning or writing one of the district offices of SAIF:

Astoria Office 1402 Marine Drive Astoria 97103 (503) 325-7252

Baker City Office Baker Hotel PO Box 270 Baker City 97814 (503) 523-6342 Beaverton Office 11855 Ridgecrest Drive Beaverton 97005 (503) 644-3118

Bend Office 355 N Lafayette Bend 97701 (503) 382-0322 Corvallis Office 941 NW Spruce Street Corvallis 97330 (503) 757-4175

Eugene Office 79 Centennial Loop Eugene 97401 (503) 686-7529



Klamath Falls Office 4747 S 6th Street Suite "D," Klamath Falls 97601 (503) 882-4454

Medford Office 999 Spring Street Medford 97501 (503) 776-6020

Milwaukie Office 7931 SE King Road Milwaukie 97222 (503) 777-2242

North Bend Office PO Box 409 North Bend 97459 (503) 756-3118 Pendleton Office 115 SE 8th Street Pendleton 97801 (503) 276-4130

Portland Metro Office 514 SW Sixth Avenue Portland 97204 (503) 229-5881

Portland NE Office 11105 NE Sandy Boulevard Portland 97220 (503) 257-4308 Roseburg Office 852 SE Stevens Roseburg 97470 (503) 672-6665

Salem Office 400 High Street SE Salem 97312 (503) 378-3411

The Dalles Office 404 W Third The Dalles 97058 (503) 296-9173



### Sources of Help in Oregon

OAR 581-22-706	Department of Commerce— Building Codes Division	Department of Commerce	Department of Education	Executive Department— Emergency Services Division	Poison Control & Drug Information Center	State Accident Insurance Fund	OR-OSHA	Insurance Carrier	Local Fire Department	Local Police Department
Comprehensive Safety Program			12 36			23 6	i 2 6			
(1), (3) Emergency Plan		12	123	17					2348	
(5), (2) Accident Pre- vention Instruction		37	13 5			37 8	37 8	36 7	13 8	
(7) Safety Inspections	12	12	13			3		3	234	34
(4) Safety Devices	1		13		-	67810	12310			
(6) Safety Instruction			13		6	3		36	14	1
(8) Accident Reporting Systems			13		6 11	9	19			

1 Rule Making

2 Official Inspections

3 Advisory Inspections

4

Local Support

Model Curriculum 5

Publications

9 Report Forms

10 Posters

**Emergency Consultation** 11

Films 7

6

8 Personnel Training

Department of Commerce 428 Labor & Industries Building Salem 97310 378-4100

**Executive Department** 155 Cottage Street NE Salem 97310

State Accident Insurance Fund (See page 2.)

Department of Consumer and Business Services **OR-OSHA** 350 Winter Street NE Salem 97310 378-3272 or 1-8(X)-922-2689

Local manufacturing industries (lumber, metals, electronic, etc.)



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Poison Control & Drug Information Center U of O Health Science Center 3181 SW Sam Jackson Park Road Portland 97201 225-8968 (in Portland) 1-800-452-7165 (outside Portland)

#### **Outside Oregon**

National Safety Council 444 N Michigan Avenue Chicago, IL 60611

### SAIF

SAIF Corporation's Risk Management staff will assist you in meeting the requirements of the lockout/tagout standard. If you need help, call your local SAIF office listed below.

#### **Baker City Office**

1928 Court Street PO Box 270 I aker City 97814-0270 (503) 523-6342 1-800-285-8535

Bend Office 20370 Empire Avenue, C8 Bend 97001-5746 (503) 382-0322 1-800-285-8530

Corvallis Office 1873 NW N nth Street Corvallis 97330-2144 (503) 758-1294 1-800-285-8552

#### **Eugene Office**

72 Centennial Loop, C110 Eugene 97401-2444 (503) 683-6700 1-800-285-8560

#### Medford Office

2862 State Street Medford 97504-8450 (503) 770-5815 1-800-285-8550

#### North Bend Office

3090 Broadway North Bend 97459-2222 (503) 756-3118 1-800-285-8565



#### Portland Office 15333 SW Sequoia Parkway PO Box 2775 Portland 97208-2775 (503) 598-1212 1-800-285-8570

**Roseburg Office** 2285 Stewart Parkway Roseburg 97470-1649 (503) 672-6317 1-800-285-8575

#### Salem Office

555 13th Street NE PO Box 14210 Salem 97309-5028 (503) 371-2126 1-800-285-8525

**Telecommunication Device for the Deaf** 1-800-283-0989

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# **Classroom Safety Instruction**

Cover such topics as:

Learning about safety may be incorporated with any school activity. However, special instruction is needed in the areas of transportation (including driver and traffic safety education), home, fire, recreation, school, medical self-help and disaster (emergency) preparedness. Goals similar to the following will be needed when planning instruction in safety:

Students will be able to apply safe practices in occupational and recreational activities.

Students will be able to identify hazards, assess risks and make appropriate decisions regarding safety.

Students will demonstrate respect for life and property.

Suggested below is one way to meet such goals through a comprehensive safety program.

• Coordinate safety instruction within all curriculum areas. Safety education should be taught at all grade levels (K-12). Instruction in safety can be included with such curriculum as:

Art	Technology Education	Physical Education
Driver Education Health Home Economics	Language Arts Mathematics Music	Science Social Studies Vocational Education

Emergency Preparedness	Pedestrian Safety Plauground Safety	School Bus Safety
First Ald	Seasonal & Vacation Safety	Traffic Safety
Home Safety	Tool & Equipment Use Safety	Water Safety
Safety at the Workplace		

Special units and courses should be developed, as needed.

- Current accident statistics, research findings and materials developed in other communities should be used in the curriculum.
- Students should be tested prior to using tools and equipment.
- Community resources should be utilized as an integral part of the program.
- Supplementary safety education should be encouraged outside the school environment.

<sup>\*</sup> Fire Safety Skills (Available through Office of the State Fire Marshall, 1988) contains suggested K-12 activities for every classroom



- Students should be tested periodically to assess their safety skills and attitudes.
- Adequate funding needs to be made available for instructional personnel, equipment, materials and supplies.
- Teacher training and preparation may be enhanced through inservice or college level courses.
- Foremost, promote safety in the school and community.
- Encourage field trips and planned excursions.
- Invite the public to safety activities sponsored by the school.
- Call on community resource people and parents to participate in safety activities.
- Inform parents about seasonal and vacation safety, accident statistics and research findings, hazards in the community, the purposes of the school safety education program and suggested home safety activities.
- Provide speakers to explain the school's safety program to civic and service organizations, business leaders, local industry and local government.
- Involve school personnel in community-wide committees concerned with safety who have participated in the school's safety program.
- Utilize the services of an advisory committee composed of students and staff members, representatives of police, firefighters, health agencies, motor vehicle clubs, business and industrial groups, civic and service organizations, parent-teacher organizations, local media, colleges and universities.
- Ask for advice and assistance from local police, firefighters, civil defense, health agencies, safety councils and motor vehicle clubs to help identify and correct school and community hazards and provide protective measures.\*

# Safety for the Disabled

Public Law 101-476, Individuals with Disabilities Education Act (IDEA), requires that students who are disabled be provided the least restrictive educational environments possible. In other words, many disabled students who formerly were housed in self-contained special education classrooms, now must be assigned to regular classrooms. This may pose safety problems for disabled students who may need special help to learn what should be done or who will assist them in an emergency. Teachers of the disabled should be aware that it is not enough to instruct these students in emergency procedures; students must be able to *do* what they are supposed to do during such situations as a fire or earthquake

The foregoing section on "Classroom Safety Instruction" is adapted from Administrative Guidelines for School Safety, published by the Missouri Department of Elementary and Secondary Education, August 1977.



alarm, or an accident on the playground. Simulations of such situations may help students grasp what is expected.

However, disabled students should not be singled out unduly. Those who are capable of learning safety procedures should be given the opportunity to do so.

All teachers, including substitute teachers, should be informed about disabled students in their classrooms, especially teachers of vocational technology education, laboratory sciences and physical education.

Regular classroom teachers should be able to call on special education personnel to help them teach the safety program to students who are disabled. The principal of the school should inform teachers of this service.

It may help to develop a checklist for ensuring that safety and emergency precautions have been provided for disabled students. (See Sample Practices, page 25.)

# Fire and Earthquake Safety and Emergency Procedures

ORS 336.072(2) requires that "at least 30 minutes in each school month shall be used to instruct children in grades one through eight on fire and earthquake dangers and drills." The same statute requires the state Department of Education to develop and distribute educational materials for fire and earthquake safety education.

The requirement for fire safety was met in 1988. A team of elementary and secondary teachers and fire services personnel produced the K-12 *Fire Safety Skills* manual. It was distributed to both schools and local fire chiefs who provided inservice assistance for teachers in its use. Grade level sets have been placed in over 80 percent of the elementary grades and are being widely used. New activities are added each year to keep current with new requirements and technology involved in detecting, reporting and fighting uncontrolled fire. Both the total manual and grade level sets can be obtained without cost through the State Fire Marshall's Office, 4760 Portland Road NE, Salem, OR 97310, or by calling 378-3473.

Additionally, the district administrator, in accordance with applicable ordinances of local fire departments, is required to schedule, conduct and record monthly fire and earthquake drills in all buildings and facilities under control of the school district.

The district safety officer should have fire and earthquake emergency information published and posted in prominent locations and make sure that employes are familiar with the following information:

Location and operation of nearest alarm stations.

Proper procedures for summoning fire assistance.

Location and operation of nearest fire extinguishers or other firefighting equipment.



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Proper emergency exit routes for both fire and earthquake when different.

Procedure for summoning emergency medical aid.

The district safety officer should verify that building safety officers are familiar with the fire and earthquake emergency procedures.

Building safety officers should assist the district safety officer in fire and earthquake drills. All students, employes and visitors should be cleared from buildings or work sites. When the district safety officer cannot be present to supervise a fire or earthquake drill, a building safety officer should conduct and record the drill.

The district safety officer or building safety officer should accompany fire marshall department inspectors during any on-site inspections of district facilities.

#### **Emergency Preparedness**

Emergency preparedness involves handling life-threatening events which affect both groups and individuals.

#### **Buildings and Site Inspection Procedures**

All school district facilities must undergo safety inspections periodically. (See form, page 23.) Inspections should be conducted by the district safety officer with the assistance of the building safety officer and at least one member of the building or district safety committee. When the district safety officer cannot be present to conduct the inspection, the building safety officer should conduct the inspection and forward reports to the district safety officer.

Inspect the following as needed, and add others as appropriate.

**Fire and earthquake prevention** — Be sure that extinguishers are accessible and of the appropriate type, exits are marked and unobstructed, alarms functioning, stairways clear and properly lighted, electrical wiring in good condition, emergency lighting functioning, flammable and combustible liquids properly stored and labeled, fire notification system functioning properly. Conduct fire and earthquake drills, as required. Provide orientation for new employes and substitute teachers.

Chemicals — Be sure that chemicals are stored and identified properly. Make appropriate protective equipment available; review safety procedures with employes.

Atmospheric conditions — Check for potential hazards involving fumes, toxic dust or other dangerous conditions. Be sure filtering devices are in proper working condition and that filter masks are available and used when appropriate.

**Containers** — Check for safe storage of materials; i.e., storage racks, safety cans, shelving, file cabinets, tool racks.



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Electrical conductors and apparatus — Be sure that switches, wires, cables, controls, plugs, connectors and electrical grounding are in good condition.

Lifting devices — Be sure that elevators, scaffolds, etc., are in safe operating condition.

Machine guards and safety devices — Be sure that all removable and fixed guards and safety devices and attachments are in place and functioning properly.

Handtools — Check to be sure handtools are in safe operating condition.

**Ear protection** — Be sure ear protection devices are available, in proper condition and worn by personnel or students when appropriate.

**Eye protection** — Be sure that approved eye protection is readily available, in proper condition and worn by personnel and students when using tools and equipment or any other time there may be a danger of injury.

# **Building Modifications**

Any building modification should be planned with safety in mind. Such modifications as creating or closing openings, moving walls, changing stairs or hardware on windows and doors, redecorating, etc., should be made only after proper authorization. Building modification should not adversely affect the health or safety of the occupants. The authorities who are responsible for approving building plans will require strict compliance with safety codes.

# Laboratory Safety

A laboratory-subject teacher may find that assigning a student as a safety manager is a good educational strategy. On a rotating basis, all students could be assigned such duties as preparing materials, checking equipment in and out, keeping storage areas in order, setting up demonstrations and cleaning up. The student safety manager could supervise all assignments, perhaps by using checklists. (See Sample Practices, pages 25-58.) The teacher also may wish to maintain a weekly checklist that can be used each Monday or following any holiday, since some labs are used by others on weekends or during holidays and vacation periods.

The student safety manager in no way assumes responsibility for overall class supervision or approving safety practices. The teacher is responsible at all times. The student safety manager should never be left in charge if the teacher leaves the lab. If the teacher must leave the lab for an emergency, students should be given explicit instructions regarding power tools or hazardous materials.

A student safety manager should be chosen according to previous performance records and dependability. Instruction should be provided for the student by the teacher.



# **Playground Safety**

Potential school playground hazards continue to come under study as a result of information gathered by the federally sponsored National Electronic Injury Surveillance System (NEISS). National data show that more than 118,000 children are taken to hospital emergency rooms each year due to school playground accidents.

Oregon Administrative Rule 581-22-706 requires Oregon school districts to provide a "comprehensive safety program" for employes and students. The focus of this standard is on the term "comprehensive." As used in the OAR, it has been interpreted to mean that districts must adhere to all codes and/or standards set by state and national agencies governing schools and their facilities. Negligence laws also rely strongly on standards established by such groups as the U.S. Consumer Product Safety Commission (CPSC).

The CPSC has developed safety standards for playground equipment. Commission data show that the most common type of injury is the result of **falls** from equipment, and in many cases the cause of injury is the **surface** under the equipment. Equipment associated with high injury rates include: climbers, swings, slides, seesaws.

#### A. Equipment Checks

Equipment should be checked carefully for hazards which may be the result of design features such as sharp edges and points, pinch and crush points, protruding bolts, suspended hazards (e.g., swing seats), entrapment dangers at openings or angles and excess height. The standards proposed by CPSC, for example, would require any playground equipment having a direct fall height of 12 feet or more to be totally enclosed except for entrance and exit openings. Regular checks by maintenance staff may include, but are not limited to, the following examples of general concerns:

On swings, chains should be checked for links nearly worn through, opened "s" hooks and damaged seats.

Peeling paint and rust spots should be sanded and repainted promptly.

Wooden equipment should be checked for splinters, breaks and splits; deficiencies should be repaired or replaced.

Eroded soil around equipment should be replaced, preferably with approved surface materials at recommended depths. All cement equipment footings should be adequately buried and well maintained.

All rungs, handholds and footholds should be checked for loosening. All bolts should be tightened periodically.

# B. Surface Under Equipment

Surface materials have been tested to determine the greatest drop height that could occur without exceeding a maximum impact force of 50G. (Impact falls above this level can cause concussion;



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impact over 160G is potentially fatal.) To provide protection for drop heights up to 8 feet, these materials are effective:

- \* Properly maintained wood chips, 12 inches deep;
- \* Well maintained pea gravel, 8 inches deep;
- \* Properly maintained dry sand, 10 inches deep.

No cushioning materials should be used that do not meet the standard for a drop height of 8 feet. Paving materials such as concrete and asphalt fail to meet the standard at drop heights above 6 inches.

C. New Concepts in Playground Equipment

Many school districts are including the construction of creative playground equipment among their playground apparatus. This equipment utilizes construction materials such as cedar or redwood logs, galvanized pipe, large diameter cement culvert sections, and used tires. None of the equipment has any moving parts; the key concept is that children, not the equipment, do the moving.

D. Resources For Playground Information

For information regarding playground safety standards, consider:

Bruya, L.D., *Play Spaces for Children*, Vol II, American Alliance for Health, Physical Education, Recreation, and Dance, 1988.

Bruya, L.D., and S.F. Langendorfer, Where Our Children Play, Vol I, American Alliance for Health, Physical Education, Recreation, and Dance, 1988.

Handbook for Public Playground Safety, U.S. Consumer Product Safety Commission, Washington, DC 20207.

E. Guidelines for Safe Playgrounds include, but are not limited to:

District policy established for playground supervision, use and emergency care.

Safe rules of behavior discussed with all staff and students.

Instruction provided for performance in all activities.

Protective equipment is functional and in good condition.

Adequate supervision provided for space and number of participants.

Equipment and ground are developmentally appropriate and accessible for students of ranging age and ability.



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Equipment and facilities regularly inspected and documented.

Administration informed in writing about any dangerous conditions.

Facilities and equipment repaired in a timely manner.

Adequate first aid supplies carried, or immediately accessible, by playground supervisors.

Attention to student injury is immediate and appropriate for the nature of the injury.

All accidents reported, documented on district forms and analyzed to determine potential changes for accident elimination.

# Vehicle Safety Inspection Procedures

The district administrator should require regular safety inspection of *all* district vehicles. These inspections should be made and reports completed not less than annually by personnel responsible for all district vehicles.

Any employe using a district vehicle should report all operating irregularities to the person responsible for vehicle maintenance or to the district safety officer. All vehicle safety deficiencies should be corrected immediately.

Personnel responsible for district vehicles should verify by personal observation that employes using district vehicles are properly licensed and have the necessary skills for operating the type of vehicle used. Circumstances may require a chauffeur's or school bus driver's license. The district should provide inservice instruction to all operators of district vehicles.

An employe involved in an accident while using a private or district-owned vehicle on district business should comply with the following procedure:

Complete an on-the-spot accident report form and forward it to the district safety officer within 48 hours following the accident.

Notify the district safety officer as soon as possible after the accident.

Complete a proper Motor Vehicles Division (MVD) report for any accident involving \$400 or more damage to any vehicle, or personal injury, or property damage. These forms may be obtained from any police department or MVD office and must be completed and returned within 72 hours either to the police department or MVD office. A copy of the form should be forwarded to the district safety officer.

The district safety officer should maintain files of MVD accident forms and on-the-spot accident forms involving district vehicles and district employes using their own vehicles on district business.



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The district safety officer should be sure that a "School Bus Accident Report," Form 2250, is completed within 72 hours of a school bus accident and forwarded at once to Pupil Transportation Services, Oregon Department of Education, Salem 97310.



# SAMPLE POLICY - COMPREHENSIVE SAFETY PROGRAM

Α. Authority "The school district shall maintain a comprehensive safety program for all employes and students. . . ." (OAR 581-22-706)

> Oregon Revised Statutes 654.001 through 654.295 and 654.991 establish authority for the Oregon Safe Employment Act ("OSE Act"). The purpose of the OSE Act is to provide safe and healthful working conditions for every working Oregonian.

- The district superintendent shall have overall responsibility for the current compre-**B**. Policy hensive safety program, including the emergency plan. All staff will be responsible to help maintain a safe and healthful environment. A district safety officer will be appointed to monitor all parts of the safety program, implement policies and objectives, interpret regulations, and provide leadership and guidance to staff. A district safety committee shall be formed and shall operate in accordance with OR-OSHA rules.
- C. Procedures The district safety program shall provide for:
  - A district safety officer.
  - A district safety committee.
  - A building safety officer for each attendance unit in the district.
  - A safety instruction and enforcement plan which is given to each student and signed by parents or legal guardians.
  - First aid to be administered only by the school nurse or the holder of a current first aid card.
  - Policies and procedures for safety inspections, accident prevention inservices, accident reporting systems, safety devices and safety instruction.
  - Emergency information on all students, giving telephone number, address, place where parents or legal guardians may be reached, and name and location of family physician.
  - Identification of students with special problems to alert instructors.
  - Compliance with the safety requirements of all regulatory agencies.





# SAMPLE POLICY — EMERGENCY PLAN

Α.	Authority	"The school district shall maintain a comprehensive safety program for all employes and students which shall:
		<ol> <li>Include plans for responding to emergency situations.</li> <li>Provide instruction in basic emergency procedures for each laboratory, shop, and studio, including identification of common physical, chemical, and electrical hazards.</li> <li>(OAR 581-22-706(1), (3))</li> </ol>
Β.	Policy	The district superintendent shall be responsible for developing a plan to respond to emergency situations, including those that affect total building populations, as well as situations affecting a single classroom or vehicle, or a personal emergency to an individual. All staff will be responsible for knowing the emergency plan and the duties specified for them; training will be provided to assist in meeting this require- ment. Students will be given instruction in basic emergency procedures as appropri- ate.
C.	Procedures	The part of the written safety program dealing with emergencies shall provide a method for handling:
		Fire safety instructions and fire drills.
		School bus emergency.
	1-110-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Severe weather conditions.
		Bomb threat.
	<u> </u>	Earthquake safety instructions and earthquake drills.
	<u></u> in	Civil disturbance.
		Nuclear threat or disaster when:
		Sufficiently warned.
		Insufficiently warned.
		Medical services and first aid and an emergency medical plan (to comply with provisions of OAR 22-65-0 through 22-65-6) as amended by Workers' Compensation Division.

Evacuation procedures for all students, including those with special needs, permanently posted specifically for each room in each facility.



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# SAMPLE POLICY — ACCIDENT PREVENTION INSTRUCTION

A. Authority "The school district shall maintain a comprehensive safety program for all employes and students which shall: . . .

(2) Specify general safety and accident prevention procedures with specific instruction for each type of classroom and laboratory....
(5) Require that an accident prevention inservice program for all employes be conducted periodically and documented...." (OAR 581-22-706(2), (5))

- B. Policy The district superintendent shall develop an accident prevention inservice plan for each school year. The accidents reported the previous year will be examined, and the plan will include a prevention program for those with the highest frequency. Safety procedures for doing all types of work in the district will be explained.
- C. Procedures The part of the written safety program dealing with accident prevention inservice will provide for:
  - Instruction to help all staff members fulfill their safety responsibilities, both general and assigned.
    - Instruction on all equipment and vehicles and all safety regulations for each work area.
    - Instruction and practice on the location and use of fire extinguishers, fire and earthquake alarm signaling devices, first aid kits or supplies, fluid spill kits, telephones and telephone numbers for securing assistance.
  - Assurances that staff are trained to work in a safe manner to prevent immediate injury to themselves or others.
  - Instruction for teachers to help students and others in implementing safety objectives outlined in the district program.
  - Instruction on the proper procedures in completing accident reports.
  - Instruction on the special precautions necessary to prevent accidents involving disabled persons.
  - \_\_\_\_\_ Make-up inservice training for staff who miss any district accident prevention inservice.
  - Information obtained from district accident reports to be used to develop accident prevention inservice training content.
  - Instruction in the practice of good housekeeping methods in all operations.





Information pertaining to near accidents involving faulty equipment or procedures to be used to develop plans to correct potential hazards.



# SAMPLE POLICY — SAFETY DEVICES

A. Authority "The school district shall maintain a comprehensive safety program for all employes and students which shall: . . .

(4) Require necessary safety devices and instruction for their use. . . ." (OAR 581-22-706(4))

- B. Policy The district requires that employes use all safety devices and operating procedures that are mandated by federal and state safe employment laws and rules. Students using power equipment or performing laboratory operations for which safety devices are mandated for employes shall be required to use the same devices and procedures. All state and local building safety codes and fire/earthquake safety regulations shall be met in all district buildings. The instruction of all staff and students in the use of safety devices shall be documented in writing.
- C. Procedures The part of the written safety program dealing with safety devices and instruction for their use shall provide for:
  - Fire extinguishers adequately supplied, properly located, and regularly inspected and serviced.
  - Proper kinds of safe wearing apparel to be worn in the manner specified for the job being done (protective devices for eyes, ears, hair, and feet; aprons, etc.).
  - \_\_\_\_\_ A well-stocked first aid cabinet in all laboratories.
  - An examination of exits and hardware for them.
  - \_\_\_\_\_ Safety guards in place on all equipment.
  - \_\_\_\_\_ Storage of flammable liquids in buildings limited to two gallons in two approved containers at any sirgle location.
  - Storage of flammable liquids in quantities exceeding two gallons to be in an approved storage cabinet or in a place away from the school.
  - \_\_\_\_\_ Documentation of safety instruction and competency testing of personnel and students using tools and equipment.
- NOTE: All staff and students should use safety devices at all times in al' places. Not only may accidents be avoided, but insurance rates may be lowered.



# SAMPLE POLICY - SAFETY INSTRUCTION

Α.	Authority	"The school district shall maintain a comprehensive safety program for all employes and students which shall:
		(6) Provide assurance that each student has received appropriate safety instruc- tions" (OAR 581-22-706(6))
В.	Policy	Appropriate safety instruction shall be provided for students in order that they will be able to identify hazards, assess risks and make and execute wise decisions regard- ing safety.
C.	Procedures	The part of the written program dealing with safety instruction shall provide for:
		General safety education goals appropriate to safety instruction coordinated across the curriculum at all grade levels — K-12, and for all classes.
	,	Safety instruction in all curriculum areas involving laboratory activities.
		Instruction in basic emergency procedures for each laboratory, shop and studio, including identification of common physical, chemical and electrical hazards.
		Instruction in specific accident prevention procedures for each type of classroom and laboratory.
		A written and/or performance test for students to measure their knowledge of safe working practices in the lab.
		Fire and earthquake safety instruction in keeping with ORS 336.072(2).



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# SAMPLE POLICY — SAFETY INSPECTIONS

A. Authority "The school district shall maintain a comprehensive safety program for all employes and students which shall: . . .

(7) Provide for regularly-scheduled and documented safety inspections which will assure that facilities and programs are maintained and operated in a manner which protects the safety of all students and employes. . . ." (OAR 581-22-706(7))

- B. Policy The district superintendent shall establish a schedule for safety inspections for all buildings, grounds, facilities, vehicles and equipment. The person(s) making the inspection will sign a report indicating discrepancies and specifying actions needed for correction. A follow-up inspection will be made when correction is finished. A summary report will be given the board *at least once a year*.
- C. Procedures The part of the written safety program dealing with safety inspections should provide for:
  - \_\_\_\_\_ Safety inspection procedures.
  - \_\_\_\_\_ A safety inspection form (Sample Practices, page 23).
  - Safety inspection checklists for all laboratories and other instructional areas (Sample Practices, page 25-58).
  - \_\_\_\_\_ A safety inspection form for outdoor play areas and equipment.
  - \_\_\_\_\_ A policy on vehicle safety.
  - A procedure to ensure corrective action for any unsafe condition.
  - The district safety officer and the building safety officer both to be present when official facility and equipment inspections are conducted.
  - \_\_\_\_\_ District safety personnel periodically to review safety inspection records to verify implementation of the district plan.
  - Pupil transportation equipment to be inspected daily and a log kept by drivers.
  - Students, employes and visitors to report safety deficiencies whenever observed.
  - \_\_\_\_\_ Safety responsibilities assigned to staff members to correct deficiencies promptly.
  - Prior approval of appropriate authority to be obtained before any building modifications are made.



Frequency of documented inspections:

	Daily	Weekly	Monthly	Quarterly	Semiannually
Buildings (exterior)				x	
Grounds				x	
Sidewalks, driveways					x
Parking lots			x		
Playgrounds		x			
Halls, stairs, ramps			x		
Storage areas (general)			x		
Flammable storage		x			
Arts/crafts labs	x				
Home economics labs	x				
Technology & vocational labs	x				
PE apparatus			x		
Science labs	x				
Boiler room		x			

Each area in each building will have an inspection schedule in accordance with the level of activity and the potential for hazards. As an example, an industrial arts lab should be inspected daily, while playgrounds might be inspected weekly or every two weeks. A safety steering committee should determine this schedule with help from a local citizen's safety advisory committee or an insurance company consultant.



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# **Standard 706 Documentation**

School	Name						
School	Safety	Offic	er				
Number on Safety Committee: District Staff Student Population							
Yes	No						
		1.	Is district safety plan in writing (board policy)?				
		2.	Do goals and lesson plans reflect safety instruction?				
<u></u>		3.	Is staff trained to respond to emergencies?				
		4.	Are hazards/hazardous materials identified?				
		5.	Are emergency procedures posted?				
		6.	Do records reflect fire, chemical, electricity instruction?				
	<del></del>	7.	Do records reflect accident investigation, analysis, board report?				
		8.	Number — current first aid card holders.				
		9.	Fire/earthquake drills documentation.				
		10.	Fire marshal report documentation.				
		11.	Electrical inspection documentation.				
		12.	Boiler inspection/permit documentation.				
		13.	Water inspection report documentation.				
<del></del>		14.	Radon inspection documentation.				
		15.	Engineers — structural inspections documentation.				
		16.	Sanitary inspections documentation.				
		17.	Fire alarm inspection documentation.				
		18.	Record of teacher safety inservice (staff agenda or sign off).				
		19.	Student accident files.				
		20.	Staff — SAIF — files.				
		21.	MSDS files (location).				
		22.	Safety committee/officer file (records of minutes).				
		23.	Abated safety work orders (signed, dated).				
		24.	Health room (hathroom, vent, observe all).				
		25.	Completed hazardous substance survey.				
			23				



- \_\_\_\_\_ 26. Eye wash/drench shower (test documentation).
- \_\_\_\_\_ 27. Chemical hood (test documentation).

# **ASBESTOS RECORD**

#### Yes No Is there a management plan? 1. 2. Is it available for inspection? 3. Has plan been approved by ODE? Are custodial and maintenance employes who work with asbestos trained accord-4. ing to federal/state regulations? Are workers/building occupants informed yearly about inspections, response 5. actions, reinspection and surveillance activities, etc.? How? Are short-term workers who may come into contact with asbestos in schools 6. provided information about ALBM? By whom?\_ 7. Has a person been designated by the district to insure the management plan is being implemented? Name/position \_\_\_\_ Has this person been trained to implement the plan? 8.



# SAMPLE PRACTICES — SAFETY INSPECTION CHECKLIST

# GENERAL SAFETY INSPECTION CHECKLIST

- Yes No
  - \_\_\_\_\_ All accidents are reported to supervisor immediately.
- \_\_\_\_\_ All injuries, regardless of nature or extent, are reported immediately.
- \_\_\_\_\_ Notices are posted when safety devices and safeguards are removed for any reason.
- \_\_\_\_\_ Spilled materials are cleaned up promptly.
- Materials are stacked nearly and safely according to specific requirements.
- Established walkways or aisles are taken; shortcuts are avoided.
- Heavy or bulky materials are lifted according to instruction.
- \_\_\_\_\_ Horseplay and fighting are prohibited.
- Alcoholic beverages, and other drugs, tranquilizers, and narcotics are avoided during working hours.
- \_\_\_\_\_ Mechanical and electrical repairs are made by authorized personnel only.
- Proper safety precautions are used to keep hair from becoming entangled in machinery.
- \_\_\_\_\_ Rings, watches and jewelry are removed when operating electrically powered machines.
- \_\_\_\_\_ Machines are disconnected from power source before repairs are attempted.
- Gasoline and flammable solvents are avoided when cleaning parts, floors, walls or other surfaces.
- Eye and skin protection is used when working with duplicating fluid, typewriter cleaning fluid or other cleaning materials.
- \_\_\_\_\_ Students and staff are familiar with emergency numbers and procedures for obtaining assistance in any emergency.
- \_\_\_\_\_ Location or master power switch is known to all students and staff.
- Well-stocked first aid and fluid spill kits are readily available.
- \_\_\_\_\_ Windows open in ways to avoid hazards to pedestrians.
- \_\_\_\_\_ Doors opening on aisles have safety zone.
- Protective devices for eyes, noise, and/or air filtering are available and used when using tools and equipment or any other time there may be danger of injury.
- \_\_\_\_\_ Machines and equipment that are to be disposed of must be totally disabled by having the power plug or its equivalent removed.



# Floors, Aisles, Stairs

- Yes No Handrails are in position and solidly anchored.
- \_\_\_\_\_ Stair treads are in good condition.
- \_\_\_\_\_ Worn or slippery stair treads are promptly reported and repaired.
- \_\_\_\_\_ Stairs are kept clear of loose objects and furniture.
- \_\_\_\_\_ Spills are properly cleaned up immediately.
- \_\_\_\_\_ Aisles and passageways are kept clear of storage and loose objects.
- \_\_\_\_\_ Warning markers are appropriately placed for wet floors, waxed floors, etc.
  - \_\_\_\_\_ Holes, cracks, curled or frayed linoleum are reported immediately.
- \_\_\_\_\_ Needed repairs are promptly completed.
- \_\_\_\_ Extension cords are placed to avoid walkways.

# Desks

Yes	No	
		Desk drawers are closed when unattended.
		Desk tops are free of sharp objects.
		Letter openers, art crafts, knives, thumbtacks, pencils, and other sharp objects are properly placed in drawers to eliminate possibility of cuts and punctures.

# **BUILDING AND SITE INSPECTION CHECKLIST**

Building and site changes and modifications should be remembered during safety checks. Below, "changes" means unintentional and usually unwanted differences resulting from natural forces, deterioration, use, neglect, abuse, or a combination thereof. "Modifications" means intentional efforts to make the building or site different in some way.

# **Building Changes**

- Yes No Changes since the last inspection present no hazardous conditions.
- \_\_\_\_ Doors and windows freely open.
- Electrical and mechanical equipment functions correctly, quietly, and without odor.
- Buildings are free from cracks, loose parts, twists, warps; they are aligned, plumb, level.



# **Building Modifications**

# Yes No Modifications have been made in conformance with plans reviewed and approved by the local building permit-issuing agency.

- \_\_\_\_\_ Additions, deletions, remodeling, retrofit, redecoration or change in function are appropriate for:
  - \_\_\_\_\_ The building space.
  - \_\_\_\_\_ Any door or window.
  - \_\_\_\_\_ Door or window hardware.
  - \_\_\_\_\_ Any mechanical or electrical equipment.
  - \_\_\_\_\_ The cutting of any opening or blocking of any opening.

# Site Changes

 Yes
 No

 \_\_\_\_\_\_
 Changes since the last inspection present no hazardous conditions.

 Conditions are free from:
 \_\_\_\_\_\_\_

 \_\_\_\_\_\_\_
 Encroachment or infestation by growing plant or animal life.

 \_\_\_\_\_\_\_
 The presence of dead plant or animal life.

 \_\_\_\_\_\_\_
 Worn or damaged equipment.

 \_\_\_\_\_\_\_\_
 Wet, damaged, realigned, or cluttered walking, driving, standing, or playing surfaces.

# Site Modifications

Yes No

- \_\_\_\_\_ Modifications have been made with benefit of review and approval by all agencies as required.
- Constructing, realigning, resurfacing, regrading, planting, removing, installing or disposing is appropriate for:
  - \_\_\_\_\_ Roads and drives.
  - Landscaping.
  - \_\_\_\_\_ Play equipment.
  - \_\_\_\_\_ Athletic fields and devices.



\_\_\_\_\_ Structures and buildings.

,

- \_\_\_\_\_ Drainage.
- \_\_\_\_\_ Storage.
- \_\_\_\_\_ Surfaces and finishes.



# SAMPLE PRACTICES — CHECKLIST FOR HANDICAPPED

# SAFETY AND EMERGENCY PRECAUTIONS FOR THE DISABLED

For teachers who have in their classroom:

### Hearing Impaired Students

- \_\_\_\_\_ These students are required to read the school's safety and emergency procedures.
- \_\_\_\_\_ These students demonstrate that they understand the procedures.
- Each particular classroom teacher provides fire/earthquake-exit maps/directions for these students.
- A buddy system is used where appropriate (a hearing impaired student may need the assistance of a hearing student when an emergency arises).
- If the school's alarm system is solely a sounding alarm, the addition of lights may help to alert a hearing impaired student to an emergency (a hearing impaired student may be in a lavatory when a fire breaks out, or the hearing impaired student's "buddy" may be absent on the day a fin breaks out in a school).
- If a regular teacher feels the need for help in teaching emergency procedures to a hearing impaired or hard-of-hearing student, the services of a teacher of the hearing impaired should be requested.

# Visually Impaired Students

- \_\_\_\_\_ All safety and emergency procedures are read to and discussed with these students.
- \_\_\_\_\_ These students demonstrate that they understand the procedures.
- \_\_\_\_\_ A buddy system is used.
- \_\_\_\_\_ The services of a teacher of the visually impaired are requested, when necessary, to teach students emergency procedures.

# Mentally Retarded, Learning Disabled, Emotionally Disturbed Students

- All safety and emergency procedures are taught to these students in language they understand.
- These students demonstrate they understand what they should do in an emergency.
- \_\_\_\_\_ A buddy system is used.
- The services of a special education teacher are requested, when necessary, to teach students emergency procedures.



# Orthopedically Impaired and Other Health Impaired Students:

- \_\_\_\_\_ These students understand safety and emergency procedures.
- \_\_\_\_\_ Needed special equipment (wheel chairs, crutches, etc.) is always accessible.
- \_\_\_\_\_ A buddy system is used.
- No architectural barriers hinder an orthopedically impaired student from exiting a building (exit time should not be unreasonably longer than the exit time for normal students).



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# SAMPLE PRACTICES — STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

# STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

All flammable and combustible liquids shall be stored in specially designed and constructed cabinets as follows:

# **Metal Cabinets**

The bottom, top, door, and sides shall be at least 18 gauge sheet steel and double walled with 1 1/2 inch (3.8 centimeters) air space. Joints shall be riveted, welded, or made tight by some equally effective means. The door shall be provided with a three-point latch arrangement, and the door sill shall be raised at least two inches (five centimeters) above the bottom of the cabinet to retain spilled liquids within the cabinet. The cabinet is not required to be vented.

# Wooden Cabinets

The bottom, sides, and top shall be constructed of exterior grade plywood at least one inch (2.5 centimeters) in thickness, which shall not break down or delaminate under fire conditions. All joints shall be rabbeted and shall be fastened in two directions with wood screws. When more than one door is used, there shall be a rabbeted overlap of not less than one inch (2.5 centimeters). Doors shall be equipped with a means of latching, and hinges shall be constructed and mounted in such a manner as to not lose their holding capacity when subjected to fire. A raised sill or pan capable of containing two inches (five centimeters) depth of liquid shall be provided at the bottom of the cabinet to retain spilled liquid within the cabinet. The cabinet is not required to be vented.

# **All Cabinets**

Cabinets shall be labeled in conspicuous lettering "FLAMMABLE - KEEP FIRE AWAY."

Note: Taken from Flammable and Combustible Liquids Code, Section 4-3, State Fire Marshall's Office, Salem, Oregon.



# SAMPLE PRACTICES — FIRE EXTINGUISHER CHECKLIST

### Location

- \_\_\_\_\_ Accessible.
- \_\_\_\_\_ Hanger mounted sturdily.
- \_\_\_\_\_ Does not create hazard to traffic in area.

# Mechanical Condition

- \_\_\_\_\_ Seals are in place.
- \_\_\_\_\_ No rust or corrosion.
- \_\_\_\_\_ Gauge or indicator operational and in range.
- \_\_\_\_\_ Nozzle and hose in good condition.
- \_\_\_\_\_ No obstruction in nozzle.

#### Servicing

- 1. Waterfill or loaded steam. Type A
  - a. Check at least monthly.
  - b. Empty, check and refill annually.
  - c. Maintain pressure on gauge in green area.
  - d. Hydrostat test every five years (stainless) (date to be plainly shown on container).
- 2. Dry Chemical A.B.C. Multipurpose
  - a. Check at least monthly.
  - b. Refill if gauge is in RED.
  - c. Hydrostat test 12 year iron, 5 year stainless.
- 3. Dry Chemical Regular or other B.C.
  - a. Check monthly.
  - b. Refill if gauge is in RED.
  - c. Hydrostat test 12 years.
- 4. Carbon Dioxide: CO2: Type B.C.
  - a. Inspect monthly.
  - b. Check weight annually, refill if not right weight (weight stamped on vessel).
  - c. Hydrostat test every 5 years.
- 5. Soda-Acid: Type AB Loaded Stream
  - a. Inspect monthly.
  - b. Empty and refill with new charge annually.
  - c. Hydrostat test every 7 years.



# SAMPLE PRACTICES — CURRICULUM SAFETY CHECKLISTS

The checklists presented on these pages are merely a start. Teachers may expand upon them to serve their particular situations.

# AGRICULTURAL SCIENCE AND TECHNOLOGY CHECKLIST

### General

- Computers are supplied with surge protectors.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Electrical plugs are properly grounded.
- \_\_\_\_\_ Grinder tools are properly adjusted.
- \_\_\_\_\_ All machines are guarded.
- \_\_\_\_\_ Metal is stored securely.
- \_\_\_\_\_ Metal in storage is kept from sticking out.
- \_\_\_\_\_ Welding protective gear is in good condition.
- \_\_\_\_\_ Tools are in proper places (e.g., cabinet, tool room on panel).
- Rags are stored in approved containers.
- Ventilation system is functioning.
- Fire extinguishers are adequate, proper type, accessible.
- Electric cords are coiled and hung in proper place.
- Work bench tops and work surfaces are clear and clean.
- First aid kit is complete and available.
- All wood is secure (both horizontal and vertical storage).
- \_\_\_\_\_ Balcony areas are neat and orderly.
- Compressed air is less than 30 psi at nozzle.
- Compressed air nozzle is of approved design.
- \_\_\_\_\_ Floor is clear of grease and oil.

# Pesticides/Herbicides

- \_\_\_\_\_ Pesticide containers are properly labeled.
- Pesticides are stored in locked, tight area.
- Signs are posted on storage area to warn fire fighters and others.



- Periodical checks are made for leaking containers.
- \_\_\_\_\_ Chemicals are kept in original containers (not soft drink bottles, milk bottles or other food containers).
- Safety precautions and antidotes are prominently posted.
- Protective clothing (e.g., rubber gloves) is worn when required.
- Equipment is in good condition, not patched (e.g., hoses wrapped or patched).
- \_\_\_\_\_ Empty containers are properly discarded.

# **ARTS/CRAFTS SAFETY CHECKLIST**

- Eye protectors are clean and ready to use in all required areas.
- \_\_\_\_\_ Only authorized persons operate kilns.
- \_\_\_\_\_ Flammable materials are properly stored.
- \_\_\_\_\_ Safety lanes are marked around properly installed and ventilated kilns.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Storage facilities are kept neat and orderly.
- \_\_\_\_\_ Oily rags are in proper container.
- Fire extinguishers are adequate, proper type, accessible.
- Tools are in proper places (e.g., cabinet, tool room on panel).
- Electric cords are coiled and hung in proper place.
- Proper ventilation is functioning.
- \_\_\_\_\_ Bench tops and work surfaces are clear.
- \_\_\_\_\_ First aid and fluid spill kits are complete and available.
- \_\_\_\_\_ Toxic materials clearly labeled and in proper containers.

# BUSINESS EDUCATION/OFFICE SYSTEMS SAFETY CHECKLIST

#### General

- Aisles are clear.
- Computers have surge protectors on the lines.
- \_\_\_\_\_ Electric cords are in good repair (this includes ground prongs).



- Wall and floor receptacles are either covered or used properly.
- \_\_\_\_\_ All audio video equipment is properly secured.
- Cords are secured to prevent tripping hazards and damage to cord insulation.

### **Duplicating Machines**

- Minimum supply of fluid is on hand.
- Fluid containers are stored in metal cabinets.
- \_\_\_\_\_ Spilled fluid is wiped up immediately.
- \_\_\_\_\_ Machine is located in well-ventilated area.
- \_\_\_\_\_ Machine is electrically grounded.
- Paper and fluid are stored in separate cabinets.
- \_\_\_\_\_ Proper type of fire extinguisher is close to machine.
- Electrical and mechanical defects are promptly reported.

#### **Paper Cutter**

- \_\_\_\_\_ Spring at end of blade holds blade in elevated position.
- \_\_\_\_\_ Blade is locked down when cutter is not in use.
- \_\_\_\_\_ Cutter is properly placed with adequate operating room.
- Students have received instruction for safe use of cutter.

#### Stapler

- \_\_\_\_\_ All parts are in good working order.
- \_\_\_\_\_ Students have received information for safe use.

#### **Filing Cabinets**

- \_\_\_\_\_ Drawers are kept closed when not in use.
- Heavy materials are filed in lower drawers.
- All drawers are fitted with secure handles.
- \_\_\_\_\_ Only one drawer is open at a time.
- Top of filing cabinet is kept clear of loose materials.

# Chairs

\_\_\_\_\_ Chairs are used only as they were intended.



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Swivel chairs are mechanically sound.

# Fire Prevention

- Wastebaskets are used only as intended.
- Fire/earthquake drills are conducted according to established policy.
- Paper and other flammable materials are kept away from light buibs and open flame.
- Electric cords are in good repair (this includes ground prongs).
- \_\_\_\_\_ Wall and floor receptacles are either covered or used properly.
- \_\_\_\_\_ Fire exits are clearly marked, free of obstruction and open easily.
- \_\_\_\_\_ Fire extinguishers are prominently located and accessible.
- \_\_\_\_\_ Fire extinguishers carry up-to-date inspection tag.
- Extension cords are inspected at least quarterly for cuts and defects.
- Extension cords are connected appropriately to prevent damage to cord housing eliminating potential fire or shock exposure from wear.
- All room and building exits are clearly marked, accessible and free of obstruction.
- \_\_\_\_\_ Decorations and accessories carry approved UL label.
- Flammable liquids are stored away from heat and flame.
- \_\_\_\_\_ Burning candles are used only with specific authority.
- \_\_\_\_\_ Fire safety instruction is given all students.
- \_\_\_\_\_ Room heating units are kept free of materials.

# (CHILD CARE IS FOUND UNDER HOME ECONOMICS)

# FORESTRY/NATURAL RESOURCES

# General

- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Computers have surge protectors on the lines.
- Electric cords are in good repair (this includes ground prongs).
- \_\_\_\_\_ Wall and floor receptacles are either covered or used properly.
- \_\_\_\_\_ Chain saws are equipped with chain brake as available.
- \_\_\_\_\_ Safety chaps are provided and used.



- Division 80 codes are available, utilized and adhered to.
- Hard hats are provided and used.
- Ear and eye protection is available and worn during required instances.
- Heavy equipment is guarded and well maintained.
- Operating labels and warnings are clearly marked on equipment.
- Cutting tools are properly guarded and maintained.
- Storage facilities are neat and orderly.
- Oily rags are in proper containers.
- Fire extinguishers are adequate, fully charged, properly located, accessible and available on or near equipment and in facilities.
- Staff and students know how to properly operate fire extinguishers.
- Tools are properly stored and secured.
- Work benches are clear of equipment and clean.
- \_\_\_\_\_ Compressed air nozzle is of approved design.
- Grinder tool rests are properly adjusted.
- \_\_\_\_\_ Welding protective gear is in good condition.

# Pesticides/Herbicides

- \_\_\_\_\_ Pesticide containers are properly labeled.
- \_\_\_\_\_ Pesticides are stored in locked, tight area.
- Signs are posted on storage area to warn fire fighters and others.
- \_\_\_\_\_ Periodic checks are inade for leaking containers.
- Chemicals are kept in original containers (not soft drink bottles, milk bottles or other food containers).
- \_\_\_\_\_ Safety precautions and antidotes are prominently posted.
- \_\_\_\_\_ Protective clothing (e.g., rubber gloves) is worn when required.
- Equipment is in good condition, not patched (e.g., hoses wrapped or patched).
- \_\_\_\_\_ Empty containers are properly discarded.

# **GRAPHIC DESIGN AND PRODUCTION**



Aisles are clear.



- \_\_\_\_\_ Computers have surge protectors on the lines.
- Electric cords are in good repair (this includes ground prongs).
- Wall and floor receptacles are either covered or used properly.
- Paper storage and work areas are neat and orderly.
- Paper cutting equipment is properly marked with identifying warnings and guarded.
- Equipment has all guards and safety devices in place and operational.
- Chemicals are properly stored, handled and labeled.
- Flammable liquids are stored in safety cans.
- Chemicals are not discarded into sewer lines.
- Ear and eye protection is available and worn during required operations and in required areas.
- \_\_\_\_\_ All rags are discarded in airtight containers.
- Operating instruction warnings are located on or near all equipment and machinery.
- \_\_\_\_\_ First aid kit is available in the immediate vicinity.
- \_\_\_\_\_ Electrical cords are not on the floor.
- \_\_\_\_\_ The darkroom is adequately ventilated.
- Fire extinguishers are adequate, fully charged, properly located, accessible and available on or near equipment and in facilities.
- Staff and students know how to properly operate fire extinguishers.
- \_\_\_\_\_ Eye wash area is available.
- Press danger zones are identified and adequate distance around the machine is provided.

# HEALTH OCCUPATIONS SAFETY CHECKLIST

- Current medical standards and practices as it relates to the safety of the student and to patients will be included in the curriculum.
- Laboratory and storage areas are clean, orderly and free of tripping hazards.
- The importance of cleanliness and how it applies to all aspects of health care is a part of the curriculum and is observed by students in all lab and clinical settings.
- \_\_\_\_\_ Floors are kept clean and moisture free.
- All lab equipment is properly maintained and sterilized according to medical office/hospital standards.



- All chemicals are properly labeled and stored.
- Protective gloves, eyewear, and clothing are available and used whenever a student might be exposed to body fluids.
- Used disposable materials are properly disposed of and waste baskets cleaned and sanitized.
- \_\_\_\_\_ Safety inspections are conducted regularly.
- Chemicals, lab instructional materials and equipment are properly stored and locked when not in use.
- In laboratory settings and clinical sites, students will be given safety instructions as it relates to their own personal safety and use of equipment, supplies and patient care.

#### HOME ECONOMICS SAFETY CHECKLIST

#### **Child Care Facility**

- There is compliance with health and safety codes as defined by state and local administration. (Child Care Division, Health Department, Fire Marshall, Building Inspection)
- Emergency exits are identified and procedures are familiar to providers and children.
- Telephone numbers for fire department and emergency numbers are posted.
- Fire extinguishers are easily accessible and can be operated by all staff.
- Telephone or intercom is accessible.
- An emergency light source is available.
- \_\_\_\_\_ Rooms have adequate lighting.
- Equipment not in use is stored and out of the way.
- Access to hazardous materials and equipment is eliminated.
- Outside play area is free of litter and equipment is safe and in good repair.
- Toys, equipment and furniture are free of sharp, rough, loose or pointed edges and in good repair.
- Electrical outlets accessible to children have protection caps or safety devices.
- Floors are free of sliding rugs and other hazards.
- Bathroom facilities are accessible to children and are under observations when in use by young children.
- Waste receptacles have been emptied before young children arrive.
- A proper ratio of adults to young children is present at all times. (Identified in the Rules for the Certification of Child Day Care Centers, Child Care Division.)



# Quality Food Service Laboratory

Teachers should be familiar with Oregon Administrative Rules (Chapter 333), Food Sanitation Rules.

- I. Facilities and Equipment
- \_\_\_\_\_ Floors are free from litter and moisture.
- Food contact surfaces are easily cleanable, smooth and free of breaks, open seams, cracks, chips, etc.
- Clean and sanitized utensils and equipment are stored at least six inches above floor in clean, dry location.
- \_\_\_\_\_ Spills are wiped up immediately.
- \_\_\_\_\_ All electrical equipment is in proper working order and is unplugged before cleaning.
- Electrical appliances are connected and used only when students have dry hands and when standing on dry floers.
- \_\_\_\_\_ Knives are kept sharp and stored in sheaths or storage rack.
- \_\_\_\_\_ All equipment is checked periodically for proper operation.
- Careful handling of hot pans and dishes is practiced by using hot pads.
- Large quantity food supplies are properly handled by dividing into smaller quantities or using carts.
- First aid equipment and fire extinguishers are accessible.
- Appropriate equipment is available to extinguish ordinary fires, grease fires and electrical fires.
- II. Proper Attire and Cleanliness of Workers
  - When working in food service laboratories, proper clothing (aprons, lab coats) is worn and all jewelry has been removed.
- \_\_\_\_\_ Hair is tied back and covered.
- Procedures for proper cleanliness is observed by all workers and reminders are displayed in appropriate locations.
- **III. Proper Food Protection Measures**
- Good sanitation practices in handling food are followed by all workers.
- \_\_\_\_\_ Foods requiring refrigeration are properly stored.
- \_\_\_\_\_ Containers of food items are stored a minimum of 6 inches above the floor in a manner that protects food.
- \_\_\_\_\_ Food products are properly labeled for storage.



- All toxic supplies are properly labeled and stored away from food items.
- Cutting boards are maintained and sanitized. The U.S. Department of Agriculture recommends cutting raw meat and poultry on plastic or acrylic boards. These boards are cleaned with hot water, detergent and bleach solutions after **each** use. Wood boards are reserved for cutting bread and vegetables (USDA) and are cleaned with hot water and detergent.

#### **General Food Preparation Laboratory**

- First aid equipment and fire extinguishers are accessible.
- \_\_\_\_\_ Students know how to operate fire extinguishing equipment.
- Appropriate equipment is available to extinguish ordinary fires, grease fires and electrical fires.
- \_\_\_\_\_ Floors are free from litter and moisture.
- Food contact surfaces are easily cleanable, smooth and free from breaks, open seams, etc.
- All electrical equipment is in proper working order.
- Electrical appliances are connected and used only when students have dry hands and when standing on dry floors.
- Sanitary practices are followed by all students (e.g., hand washing, hair is pulled back and/ or covered, clean lab aprons or coats are worn).
- Cutting boards are maintained and sanitized. The U.S. Department of Agriculture recommends cutting raw meat and poultry on plastic or acrylic boards. These boards are cleaned with hot water, detergent and bleach solutions after **each** use. Wood boards are reserved for cutting bread and vegetables (USDA) and are cleaned with hot water and detergent.
- \_\_\_\_\_ Foods requiring refrigeration are properly stored.
- \_\_\_\_\_ Containers of food items are stored a minimum of 6 inches above the floor in a manner that protects food.
- \_\_\_\_\_ Food products are properly labeled for storage.
- \_\_\_\_\_ All toxic supplies are properly labeled and stored away from food items.

#### **Clothing Laboratory**

- Electrical cords are properly placed to avoid traffic lanes. If outlets are in floor, equipment is placed over the outlet.
- \_\_\_\_\_ Irons are properly stored.
- Sharp instruments, such as scissors, seam ripper, razor blades, are used and stored properly.
- \_\_\_\_\_ Students are given instruction on proper use of equipment (sewing machines and other small equipment).



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# MARKETING AND SCHOOL STORE (MARKETING LAB) SAFETY CHECKLIST

- \_\_\_\_\_ The marketing curriculum includes appropriate safety instruction.
- \_\_\_\_\_ Storage areas are kept clean and orderly.
- \_\_\_\_\_ Food items in school store are properly stored.
- \_\_\_\_\_ Floors are kept free from litter and moisture.
- \_\_\_\_\_ Spills and food on floor are cleaned up immediately.
- Utensils used in preparing or serving food items are clean, properly sanitized and properly stored.
- \_\_\_\_\_ Waste baskets are regularly emptied and cleaned/sanitized.
- All electrical equipment is properly grounded, kept in good operating condition and inspected regularly.
- First aid equipment and fire extinguishers are readily accessible.
- Glass display cases are cleaned regularly.
- Procedures for proper cleanliness is properly displayed and observed by students selling/ handling food items in school store.
- Helium tanks for balloons are properly chained to racks or wall.
- \_\_\_\_\_ Safety inspections are regularly conducted.
- \_\_\_\_\_ Computers are supplied with surge protectors.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Electrical plugs are properly grounded.
- \_\_\_\_\_ Facility is checked and approved per state health regulatory agency.

# INDUSTRIAL AND ENGINEERING SYSTEMS

# Communication Laboratories, Drafting (See Graphics Design and Production)

- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Storerooms, closets are neat and orderly.
- \_\_\_\_\_ Guard on paper cutter is in working order.
- \_\_\_\_\_ Ventilation is adequate around diazo machine.
- Computers have surge protectors on the lines.
- \_\_\_\_\_ All audio video equipment is properly secured.
- \_\_\_\_\_ Computers are supplied with surge protectors.



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\_ Electrical plugs are properly grounded.

### **Electronics Technology**

- Voltage on all electrical outlets is marked.
- Eye, noise, and air particle filter protectors are clean and in working order.
- \_\_\_\_\_ Tools are hung on tool panels.
- \_\_\_\_\_ GFI equipment is installed into all circuits.
- \_\_\_\_\_ Storage areas are neat and orderly.
- \_\_\_\_\_ Bench tops are all nonconductor material.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Computers have surge protectors on the lines.
- \_\_\_\_\_ Training stations use safe voltages with low amperage.

#### INTEGRATED TECHNOLOGY (This program would use a combination of labs.)

(Note: See Media Center Safety Checklist in later sections for more information.) (Note: See Music Safety Checklist in later sections for more information.)

# MANUFACTURING TECHNOLOGY LABS

#### Manufacturing Technology — Metal

- \_\_\_\_\_ Eye protectors are clean and worn in chip-producing areas.
- \_\_\_\_\_ All machines are guarded: Shaper \_\_ Grinder \_\_ Lathes \_\_ Mills \_\_ Welding \_\_ Shear \_\_\_\_ Bar Folder \_\_ Brake \_\_ Slip Roll \_\_.
- \_\_\_\_\_ Metal is stored securely.
- \_\_\_\_\_ Metal in storage is kept from sticking out.
- \_\_\_\_\_ Aisles are marked and clear.
- \_\_\_\_\_ Materials are stored in proper location.
- All students wear shop aprons, shop coats, or coveralls (appropriate for specific labs).
- \_\_\_\_\_ Welding protective gear is in good condition.
- Gloves for handling sheet metal are in good condition.
- Foundry area has proper safety equipment (i.e., sand pit for pouring, marked safety areas of work, special fire proof protective equipment) and is neat and clean.
- \_\_\_\_\_ Tools are mounted on tool panel.



- \_\_\_\_\_ Squaring shear block is in position.
- Rags are stored in approved containers and they are emptied daily.

#### Manufacturing Technology — Plastic

- \_\_\_\_\_ Safety glasses are in use in all required areas.
- \_\_\_\_\_ Ventilation system is functioning.
- \_\_\_\_\_ Exhaust system on buffers is operating.
- Gloves are in good condition for handling hot plastic.
- \_\_\_\_\_ Storage areas are neat and clean.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Materials are stored in proper places.
- \_\_\_\_\_ Flammable materials are stored in proper lockers.
- Buffing wheels are properly backed or surrounded by guards or walls to prevent material from being thrown by the wheel and causing injuries.

#### Manufacturing Technology --- Woodworking and/or Construction Technology

- Work bench tops are clear and clean.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Glue bench is clean.
- \_\_\_\_\_ Clamps are stored neatly.
- All wood is secure (both horizontal and vertical storage).
- Balcony areas are neat, orderly, and free of wood dust particulate.
- \_\_\_\_\_ Safety glasses are clean and used in chip-producing areas.
- All rags are disposed of in proper containers.
- \_\_\_\_\_ Guards are in place on all machines: Table Saw \_\_ Jointer \_\_ Drill Press \_\_ Band Saw \_\_\_ Shaper \_\_ Grinder \_\_ Sander \_\_.
- All students wear aprons or shop coats when working.
- \_\_\_\_\_ Student safety manager checks list, notes discrepancies, and signs it each period.
- Wood is stored away from working areas.
- \_\_\_\_\_ Stairways are clear.
- All flammable materials are stored in approved flammable materials cabinet.
- \_\_\_\_\_ Cords present no tripping hazards.



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- Power hand tools are stored neatly, have trigger on/off switches that turn off when released, and have undamaged cords.
- Power hand tools cannot be locked in "on" position.
- All machines are secured to floor.
- \_\_\_\_\_ Guards are in place on all belts and pulleys.
- \_\_\_\_\_ Compressed air is less than 30 psi at nozzle.
- \_\_\_\_\_ Compressed air nozzle is of approved design.
- Tools are stored so sharp edges or points present no hazard.
- \_\_\_\_\_ Project storage is neat and orderly.

# TRANSPORTATION, POWER AND ENERGY, and MECHANICAL TECHNOLOGY LABS

- \_\_\_\_\_ Aisles are clear.
- Computers have surge protectors on the lines.
- \_\_\_\_\_ Electric cords are in good repair (this includes ground prongs).
- \_\_\_\_\_ Safety glasses, noise protectors, and air particle filters are used in all required areas and when using tools and equipment.
- Devices for protection against asbestos are available and used when appropriate.
- All gasoline and flammable materials are stored in proper containers.
- CO<sup>2</sup> fire extinguishers are in sight, accessible and charged.
- Staff and students know how to properly operate fire extinguishers.
- Battery charging area is away from open flames.
- All cars are on safety jacks if raised.
- Floor is clear of grease and oil.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Stored material is in storeroom.
- \_\_\_\_\_ Bench tops and work surfaces are clear.
- Tools are on tool panel or in storage areas.
- Cars only stay in shop for maximum time (1 day, 1 week).
- Exhaust removing ventilation system is functioning and CO levels are monitored.
- Rags are stored in proper containers.
- All used rags are discarded in airtight containers.



- \_\_\_\_\_ Equipment has all guards and safety devices in place and operational.
- \_\_\_\_\_ Chemicals are properly stored, handled and labeled.
- \_\_\_\_\_ Flammable liquids are stored in safety cans.
- \_\_\_\_\_ Gas, oil, transmission fluid, anti-freeze or other chemicals are not discarded into sewer lines.
- Operating instructions warnings are located on or near all equipment and machinery.
- \_\_\_\_\_ First aid kit is available in the immediate vicinity.
- \_\_\_\_\_ Electrical cords are not on the floor.
- \_\_\_\_\_ Eye wash area available.

#### MEDIA CENTER SAFETY CHECKLIST

#### General

- \_\_\_\_\_ All carts designed for rubber mats are so equipped.
- Ramps are available for equipment transport.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Electrical plugs are properly grounded.
- Equipment is stored with heavier equipment at the bottom and lighter items at the top.
- Production equipment is properly stored when not in use (e.g., paper cutter, etc.).
- Equipment on movable carts (e.g., VCR, TV, computers, projectors, etc.) are secured to the carts with a strap or other devices.
- \_\_\_\_\_ Computers are supplied with surge protectors.

#### **Duplicating Machines**

- \_\_\_\_\_ Minimum supply of fluid is on hand.
- \_\_\_\_\_ Fluid containers are stored in metal cabinets.
- \_\_\_\_\_ Spilled fluid is wiped up immediately.
- \_\_\_\_\_ Machine is located in well-ventilated area.
- \_\_\_\_\_ Machine is electrically grounded.
- \_\_\_\_\_ Paper and fluid are stored in separate cabinets.
- \_\_\_\_\_ Proper type of fire extinguisher is close to machine.
- \_\_\_\_\_ Electrical and mechanical defects are promptly reported.



# **Paper Cutter**

\_\_\_\_\_ Spring at end of blade holds blade in elevated position.

Blade is locked down when cutter is not in use.

- Cutter properly placed with adequate operating room and away from electrical cords.
- Students have received instruction for safe use of cutter.

# Stapler

- \_\_\_\_\_ All parts are in good working order.
- \_\_\_\_\_ Students have received information for safe use.

# **Filing Cabinets**

- Drawers are kept closed when not in use.
- Heavy materials are filed in lower drawers.
- All drawers are fitted with secure handles.
- Only one drawer is open at one time.
- \_\_\_\_\_ Top of filing cabinet is kept clear of loose materials.

# Chairs

- Chairs are used only as they were intended.
- \_\_\_\_\_ Swivel chairs are mechanically sound.

# MUSIC SAFETY CHECKLIST

- The decibel level is controlled within acceptable upper limits in music facilities, particularly instrumental music areas.
- \_\_\_\_\_ Stairs used by students moving with instruments meet all pertinent safety criteria.
- \_\_\_\_\_ Risers are sturdy; stationary seated risers have trim steps to prevent chairs from sliding off.
- \_\_\_\_\_ Storage facilities are neat and orderly.
- Electrical cords, receptacles, and other equipment are examined regularly for safety.
- \_\_\_\_\_ Pianos moved frequently are equipped with large casters or are moved on a dolly.
- Computers and electrical keyboards are supplied with surge protectors.



# PHYSICAL EDUCATION SAFETY CHECKLIST

- General safety rules are posted in each physical education area.
- \_\_\_\_\_ Specific safety rules are posted at each danger station.
- \_\_\_\_\_ Adequate instruction in personal safety equipment is provided.
- Students are examined for safety knowledge and practices.
- \_\_\_\_\_ Storage facilities are neat and orderly.
- \_\_\_\_\_ Special clothing is used in appropriate areas.
- Protective gear is in good condition.
- Rings and other jewelry are removed by pupils when in physical education activity class.
- \_\_\_\_\_ Adequate controls are in existence for accounting for safety equipment.
- \_\_\_\_\_ Materials are stored in appropriate locations.
- Equipment guards and padding are in place when equipment is in use.
- Administration is informed about any dangerous conditions.
- Students are not forced to perform when they exhibit apprehension and fear.
- \_\_\_\_\_ Facilities and equipment are repaired.
- \_\_\_\_\_ Students are examined for safety knowledge.
- Proper supervision is provided for each activity.
- \_\_\_\_\_ Class size is limited for safety.
- Injured students are safely attended to.
- \_\_\_\_\_ First aid station is in physical education facility.
- \_\_\_\_\_ There are adequate first aid supplies.
- There is a policy on emergency care.
- Forms for writing accident reports are available.
- \_\_\_\_\_ Soap dispensers are provided in shower facilities (no bar soap).

# SAFETY CHECKLIST FOR SECONDARY SCIENCE LABORATORIES

This listing is divided into specific categories:

# The Laboratory Room - Floor Plan, Design, and Utilities

\_\_\_\_ There are two exits, one near the front of the room and the other near the back of the room.



- \_\_\_\_\_ The exits have a highly visible placard or electrically lighted sign.
- Emergency exit procedures are posted, easily read and highly visible.
- \_\_\_\_\_ There is ample counter space for each individual work station; work surface of non-porous, chemical-resistant material.
- \_\_\_\_\_ There are wide aisles to provide movement of equipment, materials cart and passage of people without collisions.
- \_\_\_\_\_ There is a centrally located counter area or table for dispensing materials.
- Laboratory room has floor to ceiling forced air ventilation.
- A well-lighted lab room and ample GFI grounded electrical outlets are strategically placed at each work station and teacher instructional area so that no extension cords are necessary.
- \_\_\_\_\_ There is a master electrical cut-off switch in the laboratory, readily accessible to the teacher in an emergency.
- \_\_\_\_\_ There is proper arrangement of sinks and water faucets, easily accessible to students working in the area.
- \_\_\_\_\_ There is a master water cut-off value in the laboratory, readily accessible to the teacher in an emergency.
- There is proper placing of gas outlet at each work station so that burners can be placed in position to prevent students from reaching over a lighted burner.
- \_\_\_\_\_ There is a master gas cut-off value in the laboratory, readily accessible to the teacher in an emergency.
- There is a general alarm system which could be a telephone, inter-com, siren or loud bell to inform people in the building of an emergency. In a newly built facility, smoke alarms and an overhead sprinkler system should be installed in the laboratory room.
- \_\_\_\_\_ Teacher has a key to lock the lab room when it is not under supervision.
- \_\_\_\_\_ Safety rules in large print are posted in the lab room.
- All emergency procedures are posted and highly visible; e.g., chemical spills.
- \_\_\_\_\_ There is a proper shower facility available for use in an emergency.
- \_\_\_\_\_ There is an approved eye wash station available for use in an emergency.

# Safety Equipment that is Built in or Installed or Mounted on the Wall

- A proper fume hood is in physical science and chemistry lab rooms where chemicals are used which give off fumes or vapors that are toxic, corrosive, strong irritants or any type of health hazard and organic solvents with highly flammable vapors. The fume hood has the power to move the air upward at a velocity of 100 linear feet per minute.
  - The fume hood has safety-glass window sashes that pull down easily and have electrical and gas outlets, an overhead light and preferably a small sink. There should be ample work space for several students.



\_\_\_\_ The hood is kept clean and not cluttered or used for storage of chemicals.

- There is an approved, overhead mounted safety shower with a highly visible sign showing its location and a visibly marked square on the floor showing its position. Readily accessible from any work station within 10 seconds. Safety showers are present in chemistry and physical science lab rooms.
- Face and body drench hose is present in all other science laboratories.
- Eyewash fountains present in all science laboratories that will deliver running water for at least 20 minutes. The fountain is easy to activate. Eyes are held open and copiously washed with water for at least 15 minutes; longer is advisable.
- There are mounted fire extinguishers of general ABC type. They are accessible to all parts of the room within 10 seconds. A large room may need several fire extinguishers that must be rigorously maintained. The position of the extinguishers must be clearly marked with a highly visible placard.
  - \* Teachers and students know how to use them.
  - Approved Fire Code fire blankets and their location are identified with a highly visible sign. Teachers are trained to properly use the fire blanket.
- \_\_\_\_\_ Special safety spark-proof refrigerator is present if needed (ordinary household refrigerators are not acceptable).
  - \_\_\_\_\_ No food or drinks are placed in a refrigerator used to store chemicals or biological materials.
- \_\_\_\_\_ First aid and fluid spill kits are available and kept supplied.
- Appropriate spill kits for acids, bases and organic solvents are kept in a designated position, clearly marked and readily accessible.
- There is a very heavy polyethylene or ceramic container, marked "ONLY FOR BROKEN GLASS," lined with a very tough plastic liner to contain the broken glass. The broken glass must be visible to the custodians, who can remove the liner without handling the broken glass.
  - \_\_\_\_\_ There are separate containers for paper trash.
- \_\_\_\_\_ Teachers know how to use all the safety equipment.
- \_\_\_\_\_ A sturdy lab cart is available to the teacher for transporting materials.
- \_\_\_\_\_ Teacher notifies the principal and department chair in writing if the necessary safety equipment is not available or if it is not functioning properly.

#### **Personal Protective Equipment**

Approved (ANSI:Z87.1) eye goggles are available in the lab room. Chemical splash proof eye goggles are worn in the chemistry lab and by anyone working with chemicals and/or chemically preserved biological specimens. All-purpose approved (ANSI Z87.1) are worn when conducting other biological lab work. Impact resistant eye goggles are worn when



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doing mechanical lab activities in physics, physical science and earth science activities. (There may be visitors or other workers present at some time; it is prudent to have several extra pair.)

- \_\_\_\_\_ A means of sanitization, such as a UV sanitizer is required to sterilize the goggles between uses.
- A laboratory apron is worn when working with chemicals including specimen preservatives. The apron is made of chemical resistant material; usually rubber or heavy vinyl plastic.
- Appropriate protective gloves are worn when working with corrosive chemicals or chemicals that are absorbed through the skin.
- Heat-resistant gloves are present and are worn when handling materials that have been heated. Long handled tongs or clamps are available to handle hot crucibles or hot glassware.
- Protective leakproof containers are available for use when transporting corrosive chemicals. Acid carriers are composed of heavy polyethylene with an inner ridge structure that holds the container in place and protects it from bumps or blows. These containers work well for bases and other corrosive chemicals. Plastic coated bottles for corrosive chemicals are acceptable.
- \_\_\_\_\_ Special carrying cans with flame arrestor are available for use when transporting flammable materials. Approved metal cans or special heavy polyethylene cans are available.

All chemicals in the lab room are properly labeled, indicating all the hazards of that chemical and stating what precautions should be taken; this includes all protective equipment that must be worn/used. (Detailed labeling applies to chemicals that have been removed from the original manufacturer's container and placed in reagent bottles or other bottles. COLOR CODED LABELS attract attention and alert one that a hazard exists; HEALTH hazards are coded BLUE and then the specific hazard is stated such as TOXIC, CAUSTIC. FLAM-MABLE hazards are coded RED, highly reactive chemicals, such as OXIDIZERS are coded YELLOW.)

- Only small amounts of flammable chemicals are in the laboratory room and the container is an approved safety container for flammable material.
- Poisonous chemicals are locked up in a secure cabinet in the storeroom. Poisonous chemicals with very high health hazards should not be stored/used in the laboratory room.
- All chemicals used in the activity, as well as the products formed, are disposed of properly.

# Storeroom for Chemicals

- The storeroom has a telephone or some means of fast communication so help can be summoned when needed (in addition, a general alarm system serves as an important safety measure).
  - \_\_\_\_\_ There is ample space to store the amounts normally kept in stock. Larger containers are placed on the lower shelves.



- Aisles are wide enough to easily move around when handling containers of chemicals.
  - \_\_\_\_ Aisles are kept clear.
- \_ The storeroom has floor to ceiling continuously forced air-ventilation, completely changing the air in the storeroom at least four times per hour.
- There is an OSHA approved step ladder to reach upper shelves. Hazardous chemicals are not stored on the upper shelves. The shelves have lip edges.
- There are two exits. One is near the front, the other near the back to ensure a second escape route. Exits are marked with a highly visible placard or a light.
- Chemicals are stored according to their chemical properties. Those chemicals having hazardous properties are stored in special protective cabinets. COLOR CODED LABELS are used.
- Flammable chemicals are stored in approved fire-resistant cabinets.
- Acids are stored in special corrosive-resistant cabinets (concentrated nitric acid is stored apart from other acids since it is an oxidizing agent).
- Strong bases are stored in a separate corrosive cabinet.
- Oxidizing agents are stored apart from reducing agents (all fuels are reducing agents).
- \_\_\_\_\_ Storeroom has an easily accessible ABC wall-mounted fire extinguisher. (A smoke alarm is desirable.)
- \_\_\_\_\_ Storeroom has appropriate spill clean-up kits.
- If storeroom is used as a preparation area, it has a sink and fume hood.
- \_\_\_\_\_ Water-reactive chemicals are stored where they will not get wet.
- All chemicals are properly labeled with hazards indicated as stated by the Texas Hazard Communication Act.
- There are no unlabeled containers of chemicals. Old, unstable and deteriorating chemicals are disposed of properly.
- Very hazardous or dangerous compounds, if used, are kept in small quantities.
- The storeroom is off limits to students and is kept locked.
- Personal Protective Equipment, such as goggles, gloves, etc., are available in the storeroom and are used when handling chemicals. Goggles are worn in the storeroom.
- \_\_\_\_\_ Sensitive electronic equipment and optical equipment are not stored in the same room with chemicals.
- \_\_\_\_\_ Special horizontal bins are used to store glass tubing.
- Sufficient sturdy carts are available for transporting chemicals and equipment.
- Protective equipment such as acid carriers are used to transport corrosive chemicals.



All persons enter the storeroom only when wearing eye protection.

#### **Teacher Preparation Area**

- A quiet area with sink and ample counter space is well lighted and ventilated.
- A fume hood is in the same area or very close, as is a fire extinguisher.
- All the necessary PPE<sup>\*\*</sup>, such as goggles, gloves, and apron, are available and worn by the teachers as they are preparing solutions.

# PROFESSIONAL TECHNICAL EDUCATION SAFETY CHECKLIST

#### General

- Eye, noise, and air filter protectors are provided and used in all required areas.
- Approved safety glasses with full side shields are provided.
- \_\_\_\_\_ Approved safety chemical goggles are provided.
- \_\_\_\_\_ Approved plastic face shields are provided.
- \_\_\_\_\_ Demonstration safety shields are provided.
- Each student has his/her own personal eye protectors or a maintenance and cleaning program for the classroom set.
- \_\_\_\_\_ Operating instructions are posted for all machines.
- \_\_\_\_\_ Students are wearing protective clothing (e.g., shop aprons or coveralls).
- \_\_\_\_\_ Safety lanes are marked around all machines.
- \_\_\_\_\_ Aisles are clear.
- \_\_\_\_\_ Storage facilities are neat and orderly.
- Oily rags are in proper container.
- Fire extinguishers are adequate, of proper type and accessible.
- \_\_\_\_\_ Staff and students know how to properly operate the fire extinguishers.
- Tools are in proper places (e.g., cabinet; tool room or panel).
- Electric cords are coiled and hung in proper place.
- All guards are properly on machines.
- Documentation of safety instruction and competency testing for each student on each type of tool or machine is easily accessible and kept up-to-date.

<sup>\*</sup> Teacher can focus attention on the preparation work and not be interrupted or distracted by students.

<sup>\*\*</sup> Personal Protective Equipment

- \_\_\_\_\_ Laboratory exits are properly marked.
- \_\_\_\_\_ Storage rooms are properly marked.
- \_\_\_\_\_ Approved fire blankets are provided.
- \_\_\_\_\_ First aid or emergency charts are provided.
- \_\_\_\_\_ Eyewash stations are provided.
- \_\_\_\_\_ Eyewash stations are checked regularly to see if they are operable.
- \_\_\_\_\_ All electric outlets are GFI grounded.
- \_\_\_\_\_ Provision is made for proper grounding of all electrical devices.
- \_\_\_\_\_ Compressed gas cylinders are properly secured to prevent tipping.
- \_\_\_\_\_ Sinks are provided.
- \_\_\_\_\_ Fume hoods are provided.
- \_\_\_\_\_ Exhaust fans are provided.
- \_\_\_\_\_ Master cutoff for electricity is accessible.
- \_\_\_\_\_ Floors are nonskid.
- \_\_\_\_\_ Special cabinets store hazardous or flammable chemicals.

Specific Professional Technical areas included are:

Accounting/Financial Systems Child Care Electronics Technology Food Service Health Occupations Hospitality, Tourism, and Recreation Manufacturing Technology Marketing Other Professional Technical Agriculture Science Technology Construction Technology Forestry/Natural Resources Graphics Design and Production Home Economics Integrated Technology Mechanical Technology Office Systems



# **TECHNOLOGY EDUCATION**

#### Dear Parents:

As part of the program in our Technology Education lab, your child will have the opportunity to learn proper safety procedures for operating various types of power tools and machinery. We wish to emphasize that before a student is allowed to operate power equipment, each student will receive safety preparation through the use of direct instruction, video reinforcement, books, charts and/or operating procedure lists. Operating procedures will be checked by an instructor and each student will have the best possible supervision while operating the equipment.

Safety is stressed in each of the areas in the Technology Education Department as well as throughout our school. See the general safety rules on the back of this letter. Our school has an excellent safety record and emphasizes appropriate procedures and practices that keep students from being injured while in any lab. We must have documented parental permission before allowing students to use any power equipment.

This class may also use video recording as part of the safety training and actual lab activity presentations. We are requesting your permission to video tape your child for class related activities such as safety presentations, project presentations, and for mock job interviews. We must also document parental permission for video taping students.

Please indicate your knowledge and consent of these two types of activities below. If you choose not to give your consent, please contact our department and we will arrange for appropriate alternative activities to assure student success in class.

The Technology Education staff would like to invite you to visit our lab facilities. You are welcome to visit at any time; please check in through the main office.

Sincerely,

Technology Education Department Staff						
			(Return this document to the Technology Depar	tment instructor.)		
I giv	e my p	ermissio	on for to			
-			Student Name			
	Yes	No	use power equipment.			
			be video taped as an instructional activity.			
in tl	ne Tech	nology I	Education Lab.			
			Parent Signature	Date		

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# SAMPLE PRACTICES — CURRICULUM SAFETY HANDOUTS

The following pages are samples of safety documentation sheets that can be used in Professional Technology or Technology Education programs:



# SAFETY RULES GENERAL

- 1. Do not enter the shop unless an instructor is present.
- 2. Eye protection is required when using any power tool/machine, when specified by the instructor, or any other time that there may be danger.
- 3. Special care must be taken to prevent hair or clothing from interfering with equipment operation.
- 4. Proper clothing must be worn. Special protective clothing such as shop coats, aprons, gloves, or leather protection must be worn appropriately. Special care must be taken to prevent loose ragged clothing from interfering with equipment operation. Remove loose jewelry before operating equipment.
- 5. ABSOLUTELY NO HORSEPLAY IN THE SHOP. Others can be injured by inappropriate actions.
- 6. Devote all your attention to the machine or tool you are using.
- 7. Safety lines are for your protection. Stay behind them unless you are using a machine within the safety line area.
- 8. Handle tools and materials using appropriate procedures. Do not handle tools and materials unless you have something specific in mind.
- 9. A clean working area is essential. If a work station in not clean, either clean it yourself or remind the previous operator to clean the area when finished. Leave the work station clean when you are finished.
- 10. Do not leave any cutting machine (example band saw or scroll saw) until all motion has stopped.
- 11. Do not change blades or belts in any equipment. Let the instructor do it.
- 12. All projects or repairs must be cleared by the instructor. Approval must be indicated on a work order sheet.

# **BEFORE TURNING ON ANY POWER EQUIPMENT:**

- \* CLEAN UP your work area before you start.
- \* SET-UP your work with the proper equipment and accessories.
- \* PUT ON SAFETY GLASSES and other appropriate safety equipment.
- \* GET OTHER PEOPLE OUT OF YOUR WORK AREA out of the yellow safety lined areas or at least three feet away.



# EQUIPMENT OPERATION CHECKLIST

NAME\_

PERIOD\_\_\_\_\_ GRADE LEVEL\_\_\_\_\_ NOTEBOOK#\_\_

- 1. You are responsible to prepare yourself for safe operation of tools and equipment by direct instruction and by using the media provided for your review.
- 2. Ask the instructor to test your competence in operating the tools and equipment.

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3. You are responsible to have the instructor initial the equipment below to indicate that you have demonstrated proper and safe operation prior to your use.

Tool Name	Teacher's Initials	Date
Portable Tools		
Electric Drill		
Vibrator Sander		
Beit Sander		
Stationary Equipment		
Disk Sander		
Spot Welder		
Wire Wheel		
Buffer		
Bar Folder		<u> </u>
Box and Pan Brake		L
Beverly Shear		
Bender		
Slip Roll Former		
Squaring Shear		
		L
Computer Programs		<u> </u>
Word Processing		<u> </u>
Spreadsheet		L
Data Processing		<u> </u>
Computer Aided Drafting		ļ
Computer Numeric Control		
Pagemaker		<u> </u>
Other:		<u> </u>
Instructor permission is required each time you use the following:		
Router (Portable)		<u> </u>
Skill Saw (Portable)		
Saber or Jig Saw (Portable)		
Band Saw		
Drill Press		
Scroll Saw		
Electric Miter Saw (Wood)		<u> </u>
Electric Miter Saw (Metal)		
Grinder		
Special Permission is Required		
Table Saw		
Surface Planer		
Jointer		
Arc Welder		_ <u></u>
Oxy-Acetylene Welder		-+
Oxy-Acetylene Cutter		
Radial Arm Saw		
Foundry		
Wood Lathe		
Metal Lathe		_ <b>_</b>
Milling Machine		<u> </u>
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