

**POLICY**

It is the policy of the Upper Grand District School Board to ensure the provision of a safe environment for the teaching and learning of elementary Science and Technology Education.

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**Administrative Detail**

1. It is the responsibility of the Superintendent of Program to administer this Policy.
2. It is the responsibility of the Superintendent in charge of Plant Operations to ensure that elementary Science and Technology classrooms, machinery and equipment are maintained to appropriate standards.
3. It is the responsibility of the Superintendent of Program, in conjunction with Human Resources, and the Elementary Technological Education Committee to provide appropriate in-service and orientation on this Policy and Procedures, and the Elementary Technological Education Safety Handbook.
4. It is the responsibility of Principals to implement this Policy.
5. It is the responsibility of elementary Science and Technology teachers to implement the safety procedures outlined in this Policy and Procedures and the Safety in Elementary Science and Technology Handbook.
6. This Policy will be reviewed, as required, by the Elementary Technological Education Committee.
7. This policy is administered in conjunction with the Education Act and Regulations, the Occupational Health and Safety Act and Regulations, the Ontario Fire Code, the Ontario Building Code, Ontario Electrical Code and other related codes, and Upper Grand District School Board Policies including #300 Emergency Procedures, #604 Safety in Science, #406 Health and Safety, and #302 Purchasing of Goods and Services and the Purchasing Handbook.

**A. GENERAL**

**NOTE:** In this policy, powered machinery refers to any tool, hand held or stationary, which operates on battery or electrical power.

1. All elementary schools will be provided with a least one copy of this Policy and Procedures.
2. Teachers without specialized training may provide instruction to students and develop programs utilizing hand tools which are not electrically or battery powered, as set out in Appendix A of this policy: Grades Seven and Eight Science and Technology Hand Tool, Power Tool and Machine List.
3. Teachers with specialized training (see Policy Section B Teacher Qualifications and Training #1) may provide instruction to students and develop programs utilizing hand tools, power tools and machines as outlined in Appendix A of this policy: Grades Seven and Eight Science and Technology Hand Tool, Power Tool and Machine List.
4. Parents and students will be required to sign a Safety Agreement/Permission Form (a sample is included as Appendix B) before a student is permitted in a Science and Technology machine area.
5. Students will be informed that they are not permitted in Science and Technology machine areas without a signed Safety Agreement/Permission Form, and without the presence of a qualified Science and Technology teacher.
6. Directives for safety procedures will be in place in schools in the event of specific emergencies as part of the school's overall emergency plan and procedures.

**B. TEACHER QUALIFICATIONS AND TRAINING**

1. Only qualified teachers (minimum Industrial Arts AQ - Part One, Design & Technology AQ - Part One, or UGDSB Machine and Power Tool Training and In-Service) will be assigned use of powered machinery and tools in elementary Science and Technology facilities. (see Appendix A)

2. Qualified Teachers (see B. # 1) will be provided with a copy of the Safety in Elementary Science and Technology Handbook.
3. Elementary Science and Technology teachers, including new teachers, and interested occasional teachers, will be provided with access to the Board's Machine and Power Tool Training and In-Service.

**C. THE SCHOOL ADMINISTRATION'S RESPONSIBILITIES FOR SAFETY**

It is the responsibility of the school administration to ensure that:

- a) all Board safety procedures and policies related to students and staff, including those with disabilities, are implemented in accordance with Board policy;
- b) elementary Science and Technology areas are inspected regularly by the School Health and Safety Representatives and members of the Joint Health and Safety Committee;
- c) programs in elementary Science and Technology include on-going instruction in safety, and the safe management and use of powered machinery, tools and equipment proportional to the facility's equipment and number of students;
- d) the reporting of deficient equipment and equipment requiring service and repairs is done in a timely fashion;
- e) the repair and/or replacement of deficient equipment is undertaken by appropriate Board Plant Operations/Maintenance staff and/or equipment suppliers;
- f) only qualified teachers (see B. # 1) will be assigned to provide programs that utilize powered machinery and tools;
- g) a list of current emergency procedures is prominently displayed in the Science and Technology area;

- h) a copy of the Elementary Technology Education Workshop Checklist completed by the Science and Technology teacher is filed by September 30<sup>th</sup> of each school year and kept at the school with a copy forwarded to the Board's Health and Safety Officer;
- i) senior administration is informed of issues that do not meet safety regulations;
- j) in the absence of a qualified Science and Technology teacher, and where an unqualified occasional teacher is to be used as a replacement, the replacement teacher is given assignments which do not involve the use of powered machinery or tools either by students or in teacher demonstration;
- k) occasional teachers who are assigned to Science and Technology classrooms are encouraged to attend safety seminars and workshops (see D. 2), and
- l) approve the Safety Guidelines and Agreement for Elementary Science and Technological Education Programs form (site specific) before use.

**D. THE SCIENCE AND TECHNOLOGY TEACHER'S  
RESPONSIBILITIES FOR SAFETY**

**NOTE:** Detailed information on the Science and Technology teacher's responsibilities for safety are included in the Safety in Elementary Science and Technology Handbook.

1. In addition to delivering the Science and Technology program and content, the teacher is responsible for being the leader in demonstrating and modeling safe practices at all times.
2. Teachers are encouraged to attend safety seminars and workshops (e.g., First-Aid, fire prevention, general student protection, new safety procedures and considerations).

3. Teachers' safety responsibilities include, but are not limited to:
- a) developing, reviewing, revising, and delivering a safety program and rules for the classroom depending on students, classes, equipment, and curriculum;
  - b) never leaving the classroom unsupervised when students are present, or leaving the classroom unlocked when it is unoccupied by the teacher;
  - c) developing a Student Safety Agreement/Permission form which outlines the specific safety rules for individual school's Science and Technology centre/classroom and submit to the school administration for approval (a sample is included as Appendix B);
  - d) ensuring that every parent and student signs the Student Safety Agreement/Permission Form and that the forms are kept on file with the teacher for the duration of the school year;
  - e) communicating the expectations of the program, and type of equipment available to parents/guardians and students;
  - f) completing a copy of the Elementary Technology Education Workshop Checklist by September 30<sup>th</sup> each school year and keeping it on file at the school with a copy forwarded to the Board's Health and Safety Officer;
  - g) establishing and maintaining the safest possible working environment and safe housekeeping routines;
  - h) logging each student's safety training, training dates and safety evaluation;
  - i) logging all accidents, no matter how minor, and advising school administration of any accidents to ensure appropriate incident reports are completed when necessary;

- j) conducting and logging daily, weekly and monthly equipment and room inspections to ensure students do not work in unsafe conditions;
- k) facilitating the correction of accident-causing conditions by analyzing incident reports;
- l) logging all machine and power tool repairs;
- m) ensuring all machine and power tools are equipped with the required safety equipment, and
- n) providing occasional teachers only with lesson plans which do not involve the use of powered machinery or tools.

**E. THE STUDENT'S RESPONSIBILITY FOR SAFETY**

The student and parent/guardian must sign the Safety Guidelines and Agreement for Elementary Science and Technological Education Programs Form which outlines the expectations and responsibilities for safety in the elementary Science and Technology program.

**F. THE OCCASIONAL TEACHER'S RESPONSIBILITY FOR SAFETY AND TRAINING**

It is the responsibility of the occasional teacher to ensure that:

- a) he or she is familiar with this Policy and Procedures, the Elementary Technological Education Safety Handbook and the safety expectations for each particular Science and Technology site where assigned occasional teaching duties;
- b) where possible, and when accepting an assignment in a Science and Technology facility, he or she is familiar with the Science and Technology teacher's expectations with respect to program changes and equipment restrictions, and
- c) he or she considers participating in the Upper Grand District School Board's Machine and Power Tool Training and In-Service.

**G. MACHINE AND EQUIPMENT PURCHASES AND INSTALLATION**

**NOTE:** In this policy powered machinery refers to any tool, hand held or stationary, which operates on battery or electrical power.

1. All purchases of machinery and large equipment, excluding hand held power tools, for use in Science and Technology classrooms will be directed to the purchasing department.
2. Hand tools and hand held power tools may be purchased directly by the school. The purchasing department will provide assistance and advice on request.
3. All powered machinery and equipment must have a CSA or UL label and meet CSA-424-04 Guidelines for Safeguarding, or the current standard.
4. All machinery and equipment must not exceed the decibel level as set out in the Occupational Health and Safety Act and Regulations.
5. Stationary machinery must be sturdy and able to be anchored in place.
6. All necessary parts/repair manuals or electrical drawings must be included with equipment.
7. Installation of equipment will be performed by a qualified technician provided by the supplier or the appropriate Upper Grand Plant Operations staff.
8. All electrical equipment and installations will be performed by a qualified electrician and meet Ontario Electrical Code requirements.
9. All elementary Science and Technology classrooms equipped with powered machinery and equipment must have a central power shut off switch.
10. Where hardwired, all electrically driven machine tools will have a main disconnect that can be locked in the "off" position before making adjustments or repairs.

11. An identified mechanical or electrical power control magnetic switch will be provided on each machine, within easy reach of the operator's normal working position. This will enable the operator to cut off power from a safe position. In the event of a power failure, the machine will not automatically start when power is restored.
12. Extension cords will not be substituted or used for permanent wiring.

**H. MACHINE AND EQUIPMENT REPAIRS AND SERVICE**

1. No equipment requiring repair will be used until the appropriate repairs have been satisfactorily completed.
2. The Science and Technology teacher will inform the school administration of all necessary machine and equipment repairs and service requirements in a timely fashion.
3. All repairs and requests for service will be forwarded to the appropriate Plant Operations staff.
4. Maintenance and repairs will be performed or coordinated by Plant Operations/Maintenance staff.
5. Plant Operations staff will establish and maintain a regular schedule for servicing equipment in science and technology classrooms.