Technology: Risk Assessment Title: **Wood** SEPTEMBER2015

**This is a generic Risk Assessment that must be modified to suit your place of work**. The Risk Assessment modifications should take into consideration the activity, age/stage/pupil ability, department/working environment and the experience of the teacher in charge. If Control Measures Required as described are implemented the risk is reduced to an acceptable level for mainstream students.

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| **Identify the Hazards** | **Who is at Risk?** | **What is the Harm?** | **Operation Taking Place** | **Control Measures Required** | **Additional Information** |
| Employees and learners should be made aware of the following hazards.  1. Exposure to Dust  2. High Exposure to Dust  3. Dust Explosion  4. Fire Hazard  From Dust  5. Falling on  Slippery Floor  6. Inhalation of  Airborne Dust  7. Lifting of  Heavy Weights | Technology teachers, technicians and students  Technology teachers, technicians  Technology teachers, technicians and students  Technology teachers, technicians and students  Technology teachers, technicians and students  Technology teachers, technicians and students  Technology teachers, technicians and students | **Wood dust irritates the eyes and respiratory tract.**  **High exposure to wood dust can cause or exacerbate skin, lung and nasal disorders, including asthma, and, rarely, cancer.**  **High concentrations of fine wood dust in the air can form an explosive mixture.**  **Wood dust accumulated on surfaces is a fire hazard.**  **Wood dust on the floor of the work area can be slippery.**  **Brushing can create airborne dust.**  **Handling heavy samples can be hazardous.** | Cutting or sanding wood  Cutting or sanding wood  Cutting or sanding wood  Cutting or sanding wood  Cutting or sanding wood  Cutting or sanding wood  Lifting wood | The COSHH Regulations 2002 (as amended) require a risk assessment to be carried out on wood dust to determine the control measures required. A combination of control measures might be required.  Regular users of timber materials (especially if sanding is regularly carried out) are at increased risk of cumulative hazards to their nasal and upper respiratory passages. The degree of risk depends on the dust concentration, the length of exposure and the type of material.  Sufficient general ventilation should be present and LEV provided. Where an effective LEV system is not in place, a dust mask conforming to BS EN 149:2001+A1:2009 class FFP3 should be used.  All timber-based dusts are assigned with an HSE maximum workplace exposure limit (WEL) of 5mg·m-3 (8 hour time weighted average, total inhalable dust), and control measures should be put in place to reduce exposure to the lowest reasonably practicable level.  RPE should be worn during any prolonged hand or machine sanding.  LEV should remove any risk of high concentrations of fine wood dust. Removal of large amounts of material using machine sanding should be kept to a minimum.  Work areas (including floors) should be kept clean using a vacuum cleaner with high efficiency particle arrestance (HEPA) air filters.  Floors should be non-slip surfaces and subject to daily cleaning and housekeeping.  Brushing work benches in craft rooms causes airborne dust and should no longer occur. High efficiency particle arrestance (HEPA) air filters should be used or time tabled ‘dampening’ of work bench surfaces.  An assessment should be carried out and measures implemented to minimise risks associated with lifting heavy timber items (e.g. use of lifting aids, team lifts, correct lifting techniques).  Many timbers are used regularly without any problems but this will depend on the species involved, the concentration and extent of exposure, the levels of toxic agent within the timber, the sensitivity of the user or the chance of developing sensitivity to the wood.  Health and Safety Executive precautions  1. Find out if the timbers you use have known ill-health effects – contact your suppliers for information.  2. Consider substituting more harmful toxic woods with less harmful ones.  3. Use effective local exhaust ventilation (LEV) to control exposure to wood dust at source to below the WEL limit.  4. Use suitable respiratory protective equipment (RPE) where your LEV does not adequately control exposure, or as an interim/emergency measure, e.g. during maintenance.  5. Use suitable protective clothing and gloves, where appropriate, to protect skin areas where timber known to cause problems is used. This clothing should be designed so dust does not become trapped between your clothing and skin.  6. Make sure that your LEV and personal protective equipment (PPE) is properly maintained.  7. Make sure that everyone who uses LEV, RPE and other PPE has been properly trained on Safe Use courses to use it correctly.  8. Make sure that there is good personal hygiene in place and adequate washing facilities for use before breaks and after work.  9. Use after-work conditioning creams to help prevent the development of occupational contact dermatitis.  10. Ensure all timber deliveries are correctly labelled with material type and delivery date. This ensures proper stock rotation and correct material type usage. Masking tape labelling adequate. | Reference BS 4163:2014  Storage of timber should be in an area separately designated and supplementary to the teaching area. The store should be adjacent to the work area with ready access both to it and to the outside of facilitate deliveries. Adequate racking for the storage of timber and timber sheets should be provided. Ends should not protrude from the rack. Retaining bars or chains should be provided if vertical stacking is employed.  To preserve materials in good condition and to facilitate safe handling at all times, timber should be stored in unheated areas. However, a comfortable working environment should be provided in these areas.  When cutting timber batons to size for school projects, PPE equipment should be worn. Eye protection should conform to BS EN 166:2002.  High exposure to wood dust is expected to only apply to work carried out in a department cutting room. This puts the Technology teacher and/or technician at risk.  Risk of an explosive mixture is a rare and extreme occurrence should proper HSE guidance and best practice be followed.  It is not common for the amount of wood dust accumulated in a school craft room to become a fire risk. End of day cleaning and efficient housekeeping minimise fire hazard risk.  Craft rooms can regularly have surfaces on or near walls which gather dust but are not within easy reach. Planned deep clean ensures these surfaces are made clean.  Timber should be cut down to an acceptable size, preferably prior to delivery, for students to lift or carry in a craft room.  For more information see HSE Information Sheet – Toxic Woods (Revision 1) 11/12 <http://www.hse.gov.uk/pubns/wis30.pdf> |
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