Technology: Risk Assessment Title: **Brazing & Silver Soldering** JANUARY2016

**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?** | **Activity Taking Place** | **Control Measures Required** | **Additional Information** |
| **Employees should be made aware of the following hazards.**1. Skin Contact2. Violent Disintegration3. Fumes Hazard4. Scalding5. Unauthorised Use6. Trip Hazard | Technology teachers, technicians and studentsTechnology teachers, technicians and studentsTechnology teachers, technicians and studentsTechnology teachers, technicians and studentsUserTechnology teachers, technicians and students | **Care should be taken when carrying hot metals, (particularly metals at black heat that might not appear hot).****Clay and concrete bricks should not be heated as they can disintegrate violently.****Brazing and silver soldering might produce fumes.****Quenching of hot metals, particularly tubular components, can present a risk of scalding.****Unauthorised use.****Loose materials and objects can present a trip or slip hazard.** | Brazing & silver solderingBrazing & silver solderingBrazing & silver solderingBrazing & silver solderingBrazing & silver solderingBrazing & silver soldering | **Brazing & Silver Soldering work should only be completed by Technology teachers and technicians who are trained and competent in the process.**Appropriate PPE should be used at all times. Strong, fire resistant aprons, gloves, and sturdy protective footwear should be used.A face shield conforming to BS EN 166:2002, 1 9B should be worn whilst brazing due to the increased risk of a splash or flick of heated metal or flux.Firebrick or other refractory materials should be used around items being soldered.LEV should be provided to remove fumes.Hot metal should be held using appropriately shaped tongs. Quenching should be a bit-by-bit process to avoid the whole piece of hot metal being submerged in one go.All power must be shut off and interlocked when not in use or when no supervision is present.Floors should be kept clear of any loose materials and tools. | Reference BS 4163:2014Contact SSERC for details of training and qualification.A warning notice should be displayed where hot metal is left to cool.Best practice is an interlocked system where the LEV automatically activates when the Forge is being used. |
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