Soldering Iron

1. <u>**Protective Clothing**</u> **– Wear nonflammable or 100% cotton long sleeve shirts and pants. Wear closed-toe shoes. Heat resistant gloves may also be needed.**

2. <u>**Eye Protection**</u> **– Solder can "spit." Safety glasses, goggles, or face shields with ANSI/ISEA Z87.1 markings should be used when soldering and clipping wires. Hold leads so when cutting, they do not fly away.**

3. **Do not solder live circuits. All power sources should be unplugged and all batteries should be removed prior to soldering.**

4. **Food and drink are not allowed in the work area since certain solders can be toxic.**

5. **Conduct work in a well-ventilated area.**

6. **Avoid breathing fumes/smoke by keeping your head to the side of, not above your work.**

7. **Examine equipment for frayed or cracked cords or a missing ground prong before each use. Do not use equipment with faulty cords.**

8. **Prevent damage to electrical cords by keeping them away from heated tips. Grasp the plug, not the cord, when unplugging the soldering iron.**

9. **Never touch melted solder or the element/tip of the soldering iron until cool.**

10. **Hold wires with tweezers, pliers, or clamps to avoid receiving burns.**

11. **If burned, immediately cool the affected area under clean, cold water and seek treatment from the school health provider.**

12. **Conduct soldering on a solid, level, and fireproof/nonflammable surface. Always return the soldering iron securely to the stand when not in use. Never put it down on your workbench.**

13. **Keep the cleaning sponge wet during use.**

14. **Use lead free solder.**

15. **Keep cleaning solvents in dispensing bottles to reduce inhalation hazards.**

16. **Turn the unit off or unplug the soldering iron when not in use.**

17. **When finished soldering, wipe off the work surface using water or cleaning solvents.**

18. **Always wash your hands with soap and water after soldering.**

Adapted from Carnegie Mellon University, Environmental Health Safety Division (2016)