CAED Support Shop

**Benders**

**•Review dress code**

-Safety Glasses must be worn at ALL times in the Shop.

-Remind students that long hair must be tied back, loose clothing and/or jewelry must be removed

-Remind students that the EDGES of metal may be VERY sharp.

-Explain we have two types of benders: Universal, and Tubing

-**Universal Bender:**

-Has an assortment of dies and tooling that can be used to bend various materials such as rod, bar, pipe, and flat stock.

-Explain we do not have the dies for every size and type of material so check before buying material for a project. Show where the dies and tooling are located and the binder with the instructions.

-Show the examples that have been bent

-Demonstrate bending a piece of 1/4" rod

-Inform we have a larger universal bender located outside that has additional dies and tooling

-**Tubing Bender:**

-Will only bend tubing

-Explain the difference between pipe and tubing: Tubing is measured by the outside diameter and pipe is measured by the inside diameter

-Explain we do not have the dies for every size tubing and each size die has a specific radius that is stamped on the die, so check before buying material for a project.

-Show where the dies and bender parts are located

-Show the assembled bender

-Discuss how the dies are stamped with “top” and a hole number that correlates to the numbers on the bender

-Explain the pins are stamped with letters that correlate with the assembly diagram in the instructions

-Show the example bends

**•Remind students to clean up after themselves.**

-Clean up ALL materials and scraps from tables and floor, move tools back in place

-Show them where the metal recycling, brooms, etc. are located and what our expectations for clean-up are.

**REMEMBER- We are here to help. If you have any questions, ask!**