CAED Support Shop

**Metal Drill Press**

**•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.

**•Intro/Strengths**

-Recall training from wood drill presses

-Show power switch

-Demonstrate how to adjust table height

-Demonstrate how to use the chuck key and the importance of removing it before starting machine

**•Operation**

-NEVER use brad-point, forstener or spade bits on metal! (holesaw can be used for some applications)

-Remind students steel and other metals are MUCH harder than wood.

-Drilling speeds are more important

-Larger bit, slower speeds. Smaller bit, faster speeds

-SLOW is good!!!!! With both drill and feed speeds

-Get tech help with speed adjustment if necessary

-Always clamp material to table

-Demonstrate use of vice grip clamps in grooves

-Demonstrate use of machine vice

-Use oil or cutting fluid

-Tighten chuck

-Remove chuck key before operating.

-Use peck drilling to clear chips

-Use center-punch to locate hole position so drill does not walk

-Demonstrate operation

-Describe and show de-burring hole after it has been drilled

**•Students Drill hole**

-Student locates hole with center punch

-Students drill hole

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

-Remove ALL materials and scraps from table and floor

-Use rag to clean up ALL oil/cutting fluid from machine and surrounding area

-Use hand broom to clean table and surrounding area.

-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!**