III. Written Test

**Portable Electric Drill Safety and Operation Test**

Name________________________ Date___________________ Class_______________

Multiple Choice - Place the letter of the most correct answer on the answer sheet.

1. The purpose of turning the drill on before attempting to drill a hole is to ____.
   a. see if the drill operates.
   b. see if the drill bit is running true.
   c. make sure the chuck key has been removed.
   d. none of these.

2. The purpose of moving the drill and bit up and down often when drilling deep hole is to _____________.
   a. reem the hole slightly larger.
   b. give the drill operator better drilling leverage.
   c. help keep the hole centered.
   d. reduce overheating in the drill bit.

3. If a large capacity portable drill bit hangs during the drilling operation what will likely happen?
   a. The bit will break.
   b. The drill will twist in the operator's hands causing a sprained wrist or bruised fingers.
   c. The drill will likely stall out and overheat.
   d. The hole will become badly distorted.

4. What kind of pressure should be applied to a drill during the drilling operation?
   a. Light, even.
   b. Medium, even.
   c. Moderate, even.
   d. Heavy, even.

5. What type of drill speed is needed for wood drilling operations?
   a. Low
   b. Low-medium
   c. Medium
   d. High
6. What type of drill speed is needed for most metal drilling operations?
   a. Low
   b. Medium-low
   c. Medium-high
   d. High

7. The purpose of a pilot hole when drilling is to ____________.
   a. make the final hole drilling operation easier.
   b. guide the final drilling operation and achieve a more accurately placed hole.
   c. reduce the feed pressure needed to drill the hole.
   d. allow the final hole to be drilled at a faster rpm and achieve a smoother finish.

8. To prevent seizing when drilling the operator should ____________.
   a. reduce the rpm's of the portable electric drill
   b. lubricate the drill bit.
   c. use a high speed drill bit.
   d. reduce the feed pressure when the bit is about to come through the material being drilled.
IV. Performance Test for the Portable Electric Drill

Name___________________________     Date  ________     Class  _________

The student performs the following while operating the portable electric drill.

1. Safety glasses are worn while the portable electric drill is being used.   ___   ___   ___

2. The portable drill is unplugged while the drill bit is being changed.   ___   ___   ___

3. The drill bit is tight in the chuck, runs true, and the chuck wrench has been removed from the chuck key before the drilling operation begins.   ___   ___   ___

4. The portable electric drill is held firmly in both hands as the switch is turned on and as the hole is being drilled.   ___   ___   ___

5. The portable electric drill has stopped rotating before the drill is laid down.   ___   ___   ___

6. The portable electric drill is positioned so that chips are thrown away from the operator and others working in the area.   ___   ___   ___

7. The electrical cord and extension cord(s) are positioned away from the work being performed.   ___   ___   ___

8. The student can properly select, remove and replace bits on the portable electric drill.   ___   ___   ___

9. The correct drill speed is selected for the type of material being drill.   ___   ___   ___

10. The student can safely control the portable electric drill and perform satisfactory drill work.   ___   ___   ___

Comments_________________________________________________________

I do hereby certify that the student has satisfactorily demonstrated ability to operate the portable electric drill by passing this performance test.

_____________________ ______ _____________________ ______
Student    Date                Teacher     Date
Portable Electric Drill Parts Identification Test

Name______________________

Match the number of each portable electric drill part to the correct part name.

___ A. Chuck  
___ B. Chuck Wrench  
___ C. Cord Strain Reliever  
___ D. Electrical Cord  
___ E. Piston Grip  
___ F. Reversing Switch  
___ G. Switch Lock  
___ H. Trigger Switch

[Diagram of portable electric drill with numbers 1 to 8 and a small diagram of the part number 6]