



3055 BA SANGAM COLLEGE

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WORKSHEET NO: 10

LESSON NOTES:

Subject: Applied Technology	Year/Level: 11
Topic: DRILLING MACHINE	Date: 02/08/21

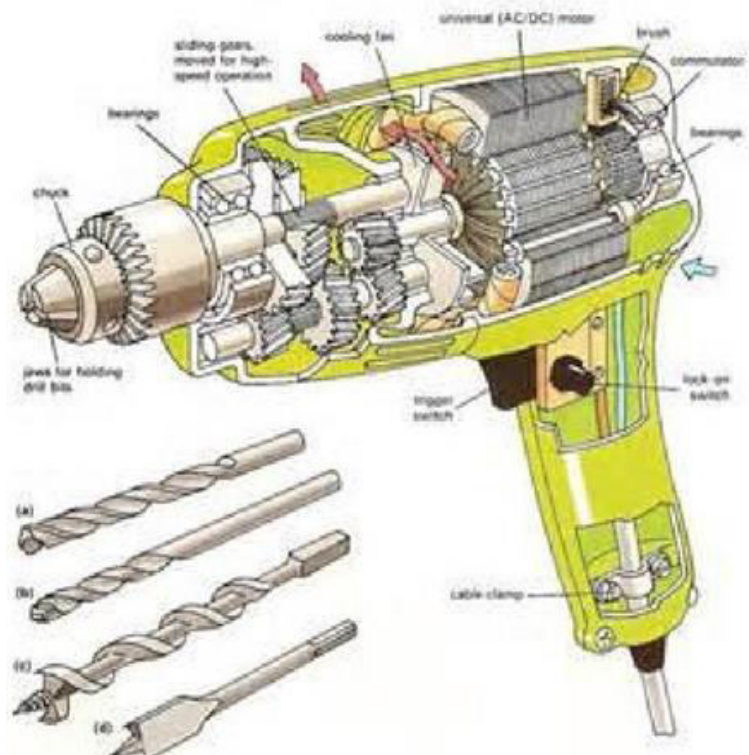
LESSON NOTES:

Portable Electric Drill:

- The portable electric drill is the most commonly used electric tool, 6mm drill being the most popular.

Drill Size:

- The size of the drill refers to the maximum diameter of bit or shank that can be held in the chuck.
- Thus the 6 mm drill will take any bit or accessory which has a 6 mm shank.
- This means that holes larger than 6 mm can be as long as the shank is not larger than 6 mm in diameter.
- However, it is wise not to bore hole much larger than this size because of the possibility of overloading the motor.



Chuck:

There are three common types of chucks: those tightened by hand like an ordinary hand drill, those tightened by an Allen key and those tightened by a geared key.



Safe Operation and Use of the portable Electric Drill:

To use the portable Electric drill *CORRECTLY* and *SAFELY* you **MUST**:

- Do not use switch lock when hand drilling.
- Make sure the job is secure and over a waste block if drilling right through.
- Use a drill stand if possible- drilling pressure can be control more easily than with free hand drilling.
- Make sure the drill or bit is secure in the chuck- remove chuck key.
- Allow the motor to attain full speed before commencing to drill.
- Back the drill or bit out of the hole frequently to remove chips.
- Remove pressure as the tool commences to through the wood or metal.
- Make sure the drill or bits are sharp and are properly sharpened.

STUDENTS ACTIVITY:

1. Give some of the reasons of the breakage of drilling bits.

2. Why do we use eye goggles in drilling?

3. What is the main purpose of the chuck?

4. There are three common types of chucks. Name these three types of chucks.
