

**PENANG SANGAM HIGH SCHOOL
P.O.BOX 44, RAKIRAKI**

LESSON NOTES-16

School: PENANG SANGAM HIGH

Year/Level: 11

Subject: APPLIED TECHNOLOGY

Strand	AT 11.5. MACHINES AND ENGINES
Sub Strand	AT 11.5.1 Motorized machines and engines.
Content Learning Outcome	AT11.5.1.1 Demonstrate knowledge on parts, attachments and process and develop practical skills in correct and safe use of motorized portable machines.

SAFE OPERATION AND USE OF THE JIG SAW

To use the Jig Saw CORRECTLY and SAFELY you MUST:

- As for all portable power tools do not force the jig saw and over-load the motor, use the correct type of blade and make sure it is shape.
- Carry out the usual electrical and mechanical safety checks before use.
- Make sure the work is held securely to prevent vibration or flutter and press the jig saw firmly on the jig saw firmly on the surface keeping the sole plate flat.
- Don't wear loose clothing – keep fingers well away from blade

USES

Jig saw can be used for straight, curved or irregular sawing either internally or externally. For internal sawing a hole is usually bored in the material from which the cutting starts.

PORTABLE ELECTRIC DRILL

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

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. The geared key is the most satisfactory type as it provides a quick, effective means of holding the bit firmly in the chuck.

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 controlled more easily than with —free-hand drilling.
- Make sure the drill or bit is secure in the chuck- remove chuck key.

SHORT ANSWER QUESTIONS

1. List any three safe operations while using jig saw.

2. Name the portable tool which can be used for straight, curved or irregular sawing either internally or externally.

3. Name any two common types of chuck.

4. Name the drill which is most commonly used in electrical.

THE END