

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

LESSON NOTES-14

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 PORTABLE ELECTRIC

ROUTER

To use the electric router CORRECTLY and SAFELY you MUST:

- Always wear safety glasses and hearing protection;
- Make sure the collet and bit shanks are clean;
- Always ensure the cutters are sharp;
- After installing the cutting bit ensure the collet nut is tightened firmly.

ROUTER BITS

As previously mentioned, there are special bits with shaped cutting edges for special jobs.

The router should never be forced when cutting, especially when 6 mm bits are used, as the heads have been known to shear off under load causing job damage and operator injury.

PORTABLE POWER PLANER

The power planer is a very high speed tool with a cutting head which revolves at between 12,000 - 16,000 revolutions per minute.

ROTATING CUTTER HEAD

Usually consists of two cutter blades, which are bolt fixed on opposite sides to a cylindrical cutter head.

The blades are set so they contact the timber at the same point on each rotation, which allows the cutting work to be shared by both blades.

FIXED REAR BASE (HEEL)

This provides a stable foot for the planer similar to that of the common bench hand planes. The cutters are set so they are flush with this base so the planer can pass over the timber at a constant depth.

ADJUSTABLE FRONT BASE (TOE)

This is where the depth of the cut is controlled. The front adjusting screw knob may be turned to allow raising or lowering of this base.

BODY HANDLE

This is where the operating trigger is located and allows the operator to hold the planer with both hands and depress the trigger at the same time.

SHORT ANSWER QUESTIONS

1. List down only three things you should consider while using electric router correctly and safely.

2. Name the tool which has very high speed with a cutting head which revolves at between 12,000 – 16,000 revolutions per minute.

3. Name the bits which has special bits with shaped cutting edges for special jobs.

THE END