

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

**LESSON NOTES-17**

**School: PENANG SANGAM HIGH**

**Year/Level: 11**

**Subject: APPLIED TECHNOLOGY**

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

**GRINDERS**

A grinding machine, often shortened to grinder, is any of various power tools or machine tools used for grinding, which is a type of machining using an abrasive wheel as the cutting tool.

Grinding is used to finish work pieces that must show high surface quality (e.g., low surface roughness) and high accuracy of shape and dimension.

**ANGLE GRINDER**

An angle grinder, also known as a side grinder or disc grinder, is a handheld power tool used for cutting, grinding and polishing. Angle grinders can be powered by an electric motor, petrol engine or compressed air.

Angle grinders may be used both for removing excess material from a piece or simply cutting into a piece. There are many different kinds of discs that are used for various materials and tasks, such as cut-off discs (diamond blade), abrasive grinding discs, grinding stones, sanding discs, wire brush wheels and polishing pads.

**SAFETY**

Angle grinders are widely used in metalworking and construction, as well as in emergency rescues. They are commonly found in workshops, service garages and auto body repair shops angle grinders produce sparks when cutting ferrous metals.

The blades themselves may also break. This is a great hazard to the face and eyes especially, as well as other parts of the body, and as such, a full face shield must be worn

and other protective clothing.

Angle Grinders should never be used without their guard or handle attached; they are there as a necessary precaution for safety. All work should be securely clamped or held firmly in a vice.

### **BUFFER**

Buffing and polishing using wheels and 'compounds' is somewhat like using wet and dry sanding paper, only much faster.

### **SAFETY**

Basic safety rules should be followed when using the polishing/buffing machine.

1. Always wear goggles - small pieces of mop and polish will fly out of the machine whilst it is being used. Goggles will prevent damage to eyes.
2. Always wear an apron or overall. These will hold back loose clothing. For example, a tie could easily be caught by the rotating mop, this would pull the machine operator into the polisher. This would result in a very dangerous and possibly fatal accident.
3. Always apply the work to the lower portion of the mop, never the top.

### **SHORT ANSWER QUESTIONS**

1. State one purpose of grinding machine.

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2. What is the another name of side grinder or disc grinder?

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3. List any two safety operations while using the grinders.

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4. Explain the term buffer.

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**THE END**