

FURNISHING

Workbook 2



Toormina High School

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D. Schlyder

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FURNISHING - Workbook 2

D.Schlyder

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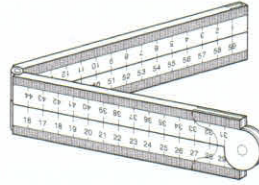


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HAND TOOLS AND EQUIPMENT

Measuring, Marking and Holding

1. Name the tool shown on the right and indicate which of the four statements does not apply to the tool.



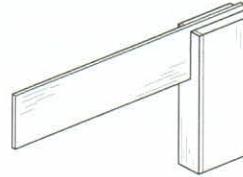
- a. Used to make accurate measurements.
- b. Available in 600mm and 1m lengths.
- c. Made from box wood or plastic.
- d. Should be left open on the bench.

Name:

2. Briefly state the reason why a measuring tape should be retracted carefully.

.....

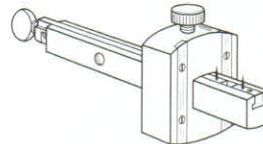
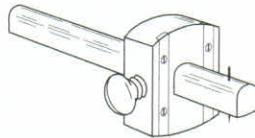
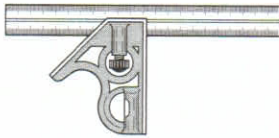
3. Name the tool illustrated on the right and briefly state its use.



.....
.....

Name:

4. Name the three tools illustrated below.



a. b. c.

5. Sliding bevels are used for drawing lines at angles other than 90° to the face side and face edge of pieces of timber.

- a. True
- b. False

6. Which of the following does not apply to wing dividers used in marking out operations?

- a. Used for drawing circles and arcs.
- b. Used for transferring measurements.
- c. Used for drawing parallel lines when marking out tenons.
- d. Used in some scribing operations.

7. Name the holding devices illustrated below and briefly describe their use.



Use:

.....

.....

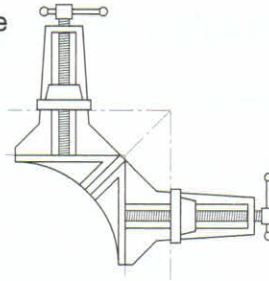
a. b.

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8. Name the holding device shown on the right and briefly describe its use.

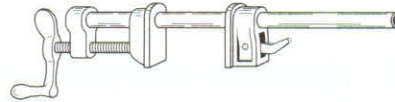
Name: _____
 Use: _____



9. Which of the following would be used for gluing up a jointed solid timber table top 900mm wide?

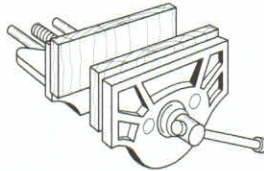
- a. Web clamp
- b. Sash clamp
- c. Vice grip
- d. Muscle clamp

10. Name the holding device shown on the right and describe an advantage of this type of device.

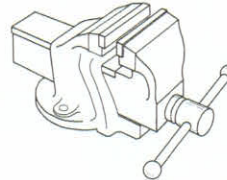


Name: _____

11. Name the holding devices shown on the right.



a. _____

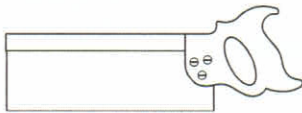


b. _____

12. Describe a maintenance procedure that is common to all the holding devices illustrated in the previous questions.

Saws and Miscellaneous Cutting Tools

1. Name the saws illustrated below and briefly describe their use:



Use. _____

a. _____



Use. _____

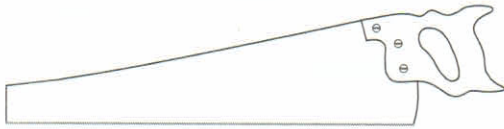
b. _____

2. Identify the saws illustrated below from the given information.



- a. Used for accurate cross cutting of thin timber sections and sheets. Length 550mm, 12 teeth per 25mm.

a. _____



- b. Used for cutting across the grain of thicker timber and with the grain of thinner timber. Length 600mm, 8 teeth per 25mm.

b. _____



- c. Used for cutting thicker timber with the grain. Length 650mm, 5 teeth per 25mm.

c. _____

3. Name the tool illustrated on the right and indicate which of the statements below does not relate to it.

- a. Has a thinly tapered, highly tempered blade.
- b. Used for cutting internal curves.
- c. A hole is drilled to enable the cut to be started.
- d. Sometimes called a scribing saw.

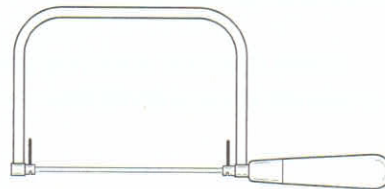


Name: _____

4. Name the cutting tool illustrated on the right and briefly state its use.

Name: _____

Use: _____



5. Briefly explain why the blade is usually fitted with the teeth facing backward in the tool shown in Question 4.

6. Name the cutting tool illustrated on the right and briefly state its use in furniture and cabinet construction.

Name: _____

Use: _____



7. Name the cutting tool on the right and briefly state its use in picture framing.



Use: _____ Name: _____

8. Name the tool on the right and briefly describe how a cut is made in the material for which the tool is used.



Use: _____ Name: _____

9. What would scissors be used for in the upholstery and soft furnishings industries?

10. Name an ordinary kitchen utensil that could be used for cutting polyurethane foam and describe how another kitchen product can be used to make cutting easier.

Name: _____

For ease of cutting use a _____

Chisels and Planes

1. Briefly describe workshop practice that should be employed to maintain chisels and planes in good condition.

2. Name the chisels illustrated below and briefly state their use:

a. Name: _____



Use: _____

b. Name: _____



Use: _____

c. Name: _____ 

Use: _____

d. Name: _____ 

Use: _____

e. Name: _____ 

Use: _____

f. Name: _____ 

Use: _____

g. Name: _____ 

Use: _____

3. Typical dimensions of three types of planes are given below. Identify each plane and briefly describe its use:

a. Dimensions: Length 250mm, blade width 50mm.

Name: _____

Use: _____

b. Dimensions: Length 380mm, blade width 60mm.

Name: _____

Use: _____

c. Dimensions: Length 550mm, blade width 60mm.

Name: _____

Use: _____

4. Name the planes illustrated below and briefly state their use:

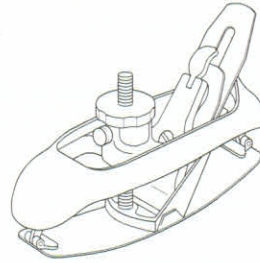
a. Name: _____

Use: _____



b. Name: _____

Use: _____

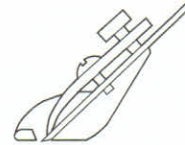


Spokeshaves and Scrapers

1. The sectional diagrams below illustrate two types of spokeshaves. Name each type and state its use.

a. Use: _____

Name: _____



b. Use: _____

Name: _____



2. Name the scrapers shown below and briefly state their use.

a. Name: _____

Use: _____



b. Name: _____

Use: _____



c. Name: _____

Use: _____



Sharpening Cutting Edges

1. What is the usual grinding angle for planes and chisels?

- a. 15°
- b. 20°
- c. 25°
- d. 30°

2. What is the usual honing or sharpening angle for planes and chisels?

- a. 35°
- b. 30°
- c. 25°
- d. 20°

3. Briefly describe the effects of overheating and how it may be avoided when grinding a chisel or plane blade. _____

4. Honing a plane blade should result in a fine burr being left on the cutting edge.

- a. True
- b. False

5. Briefly describe a method for flattening the worn surface of an oilstone.

6. Hand scrapers are prepared with a sharp burr that forms the cutting edge.

- a. True
- b. False

7. What is the purpose of each of the three stages of sharpening a rectangular hand scraper?

Filing: _____

Honing: _____

Burnishing: _____

Drill Bits

1. Name the drill bits illustrated below and briefly state their use.

a. Name: _____ 

Use: _____

b. Name: _____ 

Use: _____

c. Name: _____ 

Use: _____

d. Name: _____ 

Use: _____

e. Name: _____ 

Use: _____

f. Name: _____ 

Use: _____

2. Name the tool shown on the right and briefly describe its use.

Name: _____

Use: _____



3. What is the minimum lip clearance angle that is required for a drill bit to cut wood cleanly and efficiently?

a. 12°

b. 22°

c. 30°

d. 45°

4. What is the purpose of lip clearance on a drill bit?

.....
.....

5. What is the clearance angle required on a dowel bit?

- a. 12°
- b. 22°
- c. 30°
- d. 45°

Screwdrivers

1. Name the screwdrivers illustrated on the right.



2. Why is it important to select a screwdriver that fits snugly into the slot of the screw?

Name:

.....
.....
.....



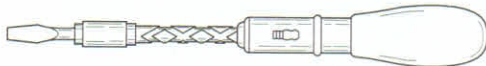
Name:

3. What is an advantage of a ratchet screwdriver?



Name:

.....
.....
.....



Name:

4. Apart from keeping the tip in good condition, what maintenance is required on a spiral screwdriver?

.....
.....

5. Name the driver bits illustrated below.



a.

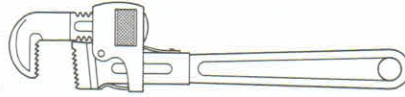
b.

Wrenches, Pliers and Spanners

1. Name the wrenches illustrated below and briefly describe their use.

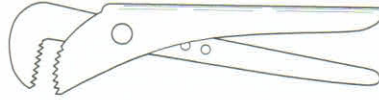
a. Name: _____

Use: _____



b. Name: _____

Use: _____



c. Name: _____

Use: _____



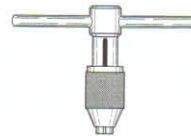
d. Name: _____

Use: _____



e. Name: _____

Use: _____

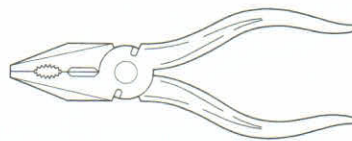


2. Briefly describe simple general maintenance of tools such as wrenches, pliers and spanners. _____

3. Name the types of pliers illustrated below and briefly state their use.

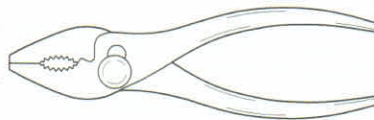
a. Name: _____

Use: _____



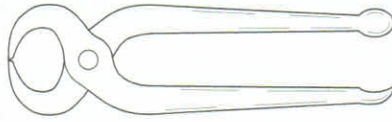
b. Name: _____

Use: _____



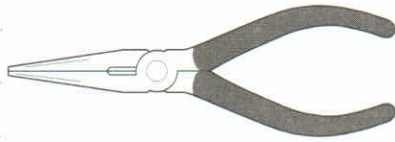
c. Name: _____

Use: _____



d. Name: _____

Use: _____



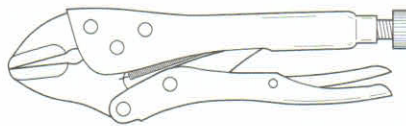
4. Name the pliers illustrated on the right and indicate which of the statements below does not apply to the tool.



- a. Pivot can be moved to several different positions.
- b. Capable of parallel gripping of jaws in several positions.
- c. Has a greater range of jaw opening than other types.
- d. Less gripping power than most other pliers.

Name: _____

5. Name the pliers illustrated on the right and briefly describe a unique feature of this tool.



Name: _____

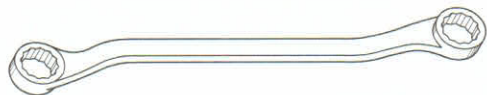
Feature: _____

6. Name the spanners illustrated on the right.



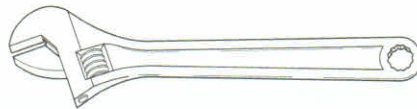
7. Briefly describe a situation where spanner 'b' in question 6 would be particularly useful.

a. _____



b. _____

8. What is necessary to avoid damage to the nut when using spanner 'c' in question 6?



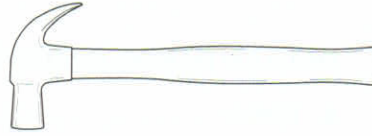
c. _____

Hammers, Mallets and Punches

1. Name the hammers illustrated below and briefly describe their use.

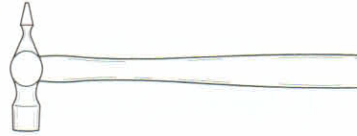
a. Name:

Use:



b. Name:

Use:



c. Name:

Use:



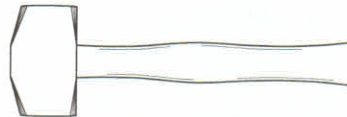
d. Name:

Use:



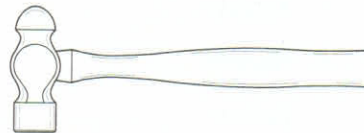
e. Name:

Use:



f. Name:

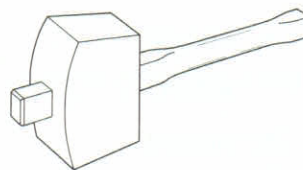
Use:



2. Name the mallets illustrated below and briefly describe their use.

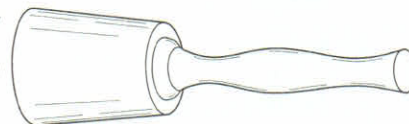
a. Name:

Use:



b. Name:

Use:



c. Name: _____

Use: _____



3. Name the punches illustrated below and briefly describe their use.

a. Name: _____

Use: _____



b. Name: _____

Use: _____



POWER TOOLS AND EQUIPMENT

Safety and Maintenance

1. Before using power tools, the operator should ensure that clothing, adornments and personal items are not potential safety hazards. List seven examples of personal safety hazards and the remedial action that should be taken.

a. Hazard: _____

Action: _____

b. Hazard: _____

Action: _____

c. Hazard: _____

Action: _____

d. Hazard: _____

Action: _____

e. Hazard: _____

Action: _____

f. Hazard: _____

Action: _____

g. Hazard: _____

Action: _____

2. Before using a power tool, the operator should inspect the tool, cords, plugs, sockets and power outlets for damage which could be potentially hazardous.

List six examples of damage or maintenance that may be required.

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

3. What action should be taken if defects are found when power tools are inspected?

4. List six electrical safety precautions that should be followed when using power tools.

- a. _____

- b. _____

- c. _____

- d. _____

- e. _____

- f. _____

5. List six safety precautions that should be followed to avoid personal injury that could be caused by a power tool.

- a. _____

- b. _____

- c. _____

- d. _____

- e. _____

- f. _____

6. List four safety precautions that relate to the way material is worked with power tools.

- a. _____

- b. _____

- c. _____

- d. _____

7. List three procedures that should be followed to avoid overloading a power tool.

- a. _____

- b. _____

- c. _____

8. List three procedures or precautions that could be described as good workshop practice or preventive maintenance of power tools.

- a. _____

- b. _____

c. _____

9. List three types of personal protective devices that should be worn when using a portable electric planer that is not connected to a dust collection system.

a. _____ b. _____ c. _____

Power Tools

1. List three categories of power tools.

a. _____ b. _____ c. _____

2. List two safety precautions that relate specifically to the use of air tools.

a. _____

b. _____

3. Briefly describe a daily maintenance requirement for most air tools.

4. List three advantages of air tools over electric power tools.

a. _____

b. _____

c. _____

5. Name, categorise and state the general use of the power tools shown below.

Name: _____

Category: _____

Use: _____



Name: _____

Category: _____

Use: _____



Name: _____

Category: _____

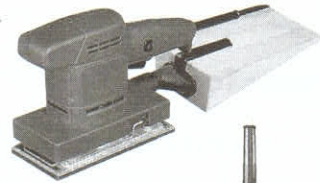
Use: _____



Name: _____

Category: _____

Use: _____



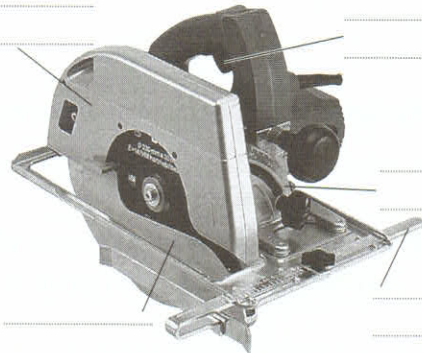
Name: _____

Category: _____

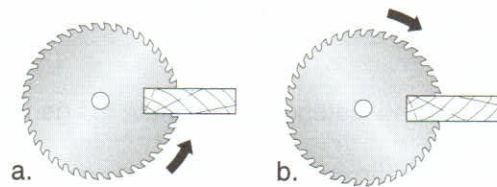
Use: _____



6. a. Name the parts of the circular saw shown on the right.
- b. Give a general description of the use of a portable electric circular saw.



- c. Indicate which of the diagrams on the right illustrates the rotation of the blade when the saw is hand held.



- d. How can the operator avoid unintentional starting of the portable circular saw?

7. List three safety precautions that relate to the lower guard of the circular saw.

a. _____

b. _____

c. _____

8. Briefly describe how the base of the circular saw should be placed on the workpiece when a cross cut is being made.

.....
.....
.....

9. Complete the following sentence:

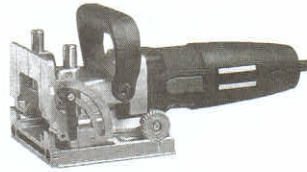
Before setting the circular saw down after completing a cut, be sure that the lower guard has and the blade has come to a

10. Name, categorise and state the general use of the power tools shown below.

Name:

Category:

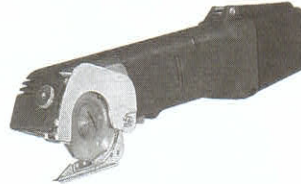
Use:



Name:

Category:

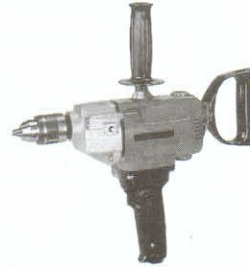
Use:



Name:

Category:

Use:



Name:

Category:

Use:



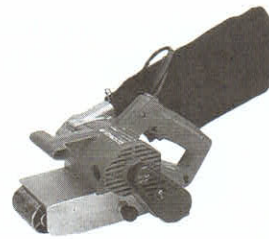
Name:

Category:

Use:



Name: _____
 Category: _____
 Use: _____

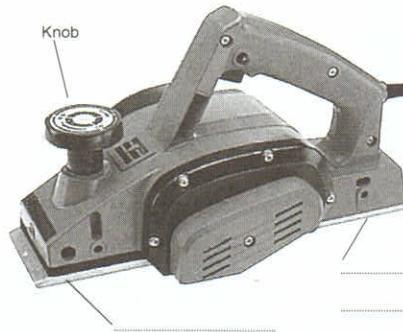


Name: _____
 Category: _____
 Use: _____



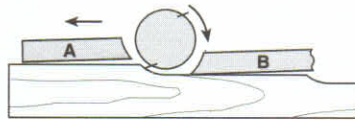
11. A portable electric planer is illustrated on the right.

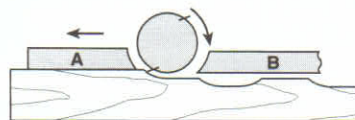
a. What operation is performed by turning the knob indicated?



b. Name the fixed and movable shoes.

c. The diagrams below illustrate incorrect blade settings on a portable electric planer. Briefly describe what is wrong with the blade settings for each diagram.







12. a. Where should the power cord be positioned when using a portable electric planer?

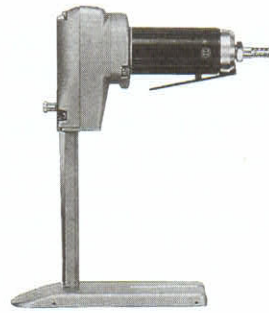
b. What should the operator do before placing the planer down after making a cut?

13. Name, categorise and state the general use of the power tools shown below.

Name:

Category:

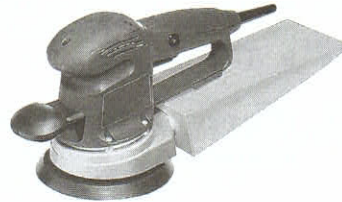
Use:



Name:

Category:

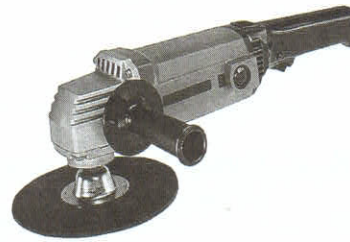
Use:



Name:

Category:

Use:



Name:

Category:

Use:



Name:

Category:

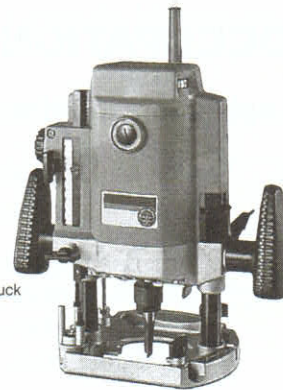
Use:



14. The illustration on the right shows a typical plunge router. Briefly describe an advantage of the plunge action.

.....
.....
.....
.....
.....

Collet Chuck



15. a. Draw a pointer to indicate the collet chuck in the illustration of the router in question 14.
b. Briefly describe the procedure for fitting a router bit in the collet chuck.

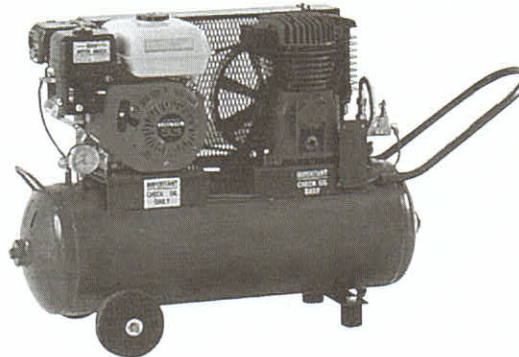
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16. A router bit rotates in a clockwise direction.
a. True b. False

17. Why must the router be fed in the same direction as the rotation of the bit for both internal and edge routing operations?

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18. a. Name the item of equipment illustrated on the right.
b. The pump in the item of equipment delivers the air to the tank through a reed valve. What is the purpose of the reed valve?



Name:

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- c. Spray guns can be connected to this item of equipment but it is not suitable for other air tools.
a. True b. False

OCCUPATIONAL HEALTH & SAFETY - 1

Legislation and Hazard Control

1. The original legislation which related to workplace health and safety in most states of Australia was based on:
a. American Factory and Farm Acts, 1891-1899.
b. English Factory Acts, 1844-1894.
c. English Workers Act, 1858-1870.
d. All of the above.

2. Complete the following sentence:
 OHS legislation provides _____ for every worker, places the duty of care on the _____, provides a mechanism for joint _____ between employers and employees and imposes _____ for breaches of the legislation.
3. Which of the employer responsibilities below does not relate to current OHS legislation?
- Ensure that all equipment is safe to use and well maintained.
 - Ensure that all substances can be used and stored safely.
 - Ensure that all employees are paid correct award wages.
 - Provide training and information to help employees work safely.
4. Complete the following sentence:
 Employees are responsible under OHS legislation to _____ with employers in OHS matters, not to _____ the health and safety of others, not to _____ or _____ with OHS equipment and not to _____ or _____ the giving of aid to an injured person.
5. Complete the following sentence:
 Employees have a right to a _____ and _____ work environment, appropriate _____, constructive _____, and adequate _____ in relation to safe work practices.
6. Which of the following would usually be the most effective method in the hierarchy of hazard control?
- Elimination
 - Substitution
 - Engineering controls
 - Administrative controls
 - Personal protective equipment
7. Which of the hazard control measures listed in question 6 would be used when all others are inadequate?
- _____

Eyesight Protection

1. Name the three categories of potential hazards to eyesight that could be found in the workplace and give brief examples.
- Hazard category: _____ Examples: _____

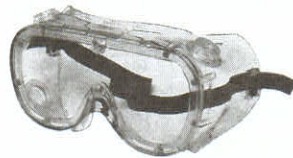
 - Hazard category: _____ Examples: _____

 - Hazard category: _____ Examples: _____

2. Complete the following sentence:
 Eyesight is a _____ part of everyday living as well as in the _____
 and must be protected from _____ .
3. Which of the following statements best describes the use of personal eyesight protection in the workplace?
- Personal eyesight protection should be used in conjunction with other methods of hazard control.
 - Personal eyesight protection should be used if other methods of hazard control are not practicable.
 - Personal eyesight protection can only be effective if fitted, worn and maintained correctly.
 - All of the above.
4. Name the personal eyesight protective devices illustrated below.



a. _____



b. _____



c. _____

Hearing Protection

1. Complete the following sentence:
 Plant, equipment, tools, implements and machinery used in the workplace can produce high levels of _____ .
2. Five methods of providing hearing protection are listed below. Number these methods from 1 to 5, in order of the 'hierarchy of noise control' from the most effective to the last resort.
- Provide personal protective equipment.
 - Modify or redesign machines to eliminate the hazard or reduce noise levels.
 - Rotate employees between workstations to reduce exposure time.
 - Install sound proofing or dampening.
 - Isolate noisy machines or equipment.
3. Personal hearing protectors are always very effective against high levels of impact noise.
- True
 - False
4. Complete the following sentences:
- The dB(A) scale is used in measuring workplace noise because it simulates _____
 _____ .

b. Daily Noise Dose is the term used to describe an employee's _____
 _____ to noise. Traditionally, it has been given a value of _____ when
 the noise level is 90dB(A) for a period of _____ hours.

5. The acceptable Daily Noise Dose equivalent now recommended by the National Standard and Code Of Practice For Occupational Noise is:

- a. 80dB(A) over eight hours
- b. 85dB(A) over eight hours
- c. 90dB(A) over eight hours
- d. 95dB(A) over eight hours

6. The acceptable Daily Noise Dose equivalent is represented on the Daily Noise Dose scale by a value of:

- a. 0.32
- b. 0.63
- c. 1.00
- d. 1.26

7. Noise control procedures can be summarised as:

- a. _____
- b. _____
- c. _____
- d. _____

8. Name the hearing protection device illustrated on the right.



9. The unavoidable noise level in a particular machine shop is 105dB(A). The hearing protection device illustrated on the right is available in the noise ratings *a*, *b*, *c* and *d* listed below. Which of these would provide workers with adequate hearing protection?

- a. 10dB(A)
- b. 15dB(A)
- c. 20dB(A)
- d. 25dB(A)

Safety Signs

1. Identify the regulatory mandatory signs below by indicating the type of protection that must be worn at the location of each sign.



- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

2. Name a power tool where the operator should wear protection indicated by the signs *a* and *b* in question 1 above. _____

3. Identify the regulatory prohibition sign illustrated on the right and give an example of an appropriate location for the sign.

Name: _____ Location: _____



4. Describe the colour scheme for hazard warning signs such as the Overhead Crane sign shown on the right.



5. Identify the emergency information signs shown on the right.



6. Describe an appropriate location for emergency information sign a.

a. _____ b. _____

7. Complete the following sentences:

HAZCHEM signs are coloured _____ on a **HAZCHEM** _____ background and indicate site storage of _____. They are used in conjunction with _____ class diamonds. Composite signs showing all classes stored should be located at points of _____ to a _____ or area where dangerous goods are stored.



8. Describe the colour scheme for fire signs.



Fire Prevention and Control

1. Name the three ingredients that must be present before a fire can start.

a. _____ b. _____ c. _____

2. Fires are classified as A, B, C or D according to the type of fuel being burnt. Indicate the class of fire for each of the fuels listed below.

() LP gas () Paint () Solvents () Wood

3. Fire extinguishers are colour coded according to the material they contain. Match the materials and colours by writing the appropriate letter beside each colour.

- a. Water b. Foam c. CO₂ d. Dry chemical e. Wet chemical
() Blue () Red () Brown () Black () White

4. Select the appropriate extinguisher by matching the extinguisher colours and fire types.

- a. Wood fire b. Electrical fire c. Flammable liquid fire
() Blue extinguisher () Red extinguisher () Black extinguisher

First Aid

1. Why is it necessary to survey the scene of an accident before taking action?

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2. What should be checked when undertaking a primary survey of the casualty?

- a. b. c.
d. e.

3. Briefly describe the steps that should be followed to control bleeding when the wound does not involve a fracture.

- a.
b.
c.
d.
e.
f.

4. What is the main aim of any treatment for fractures?

.....

5. If a fracture is suspected, the injured body part must be immobilised. Which of the following is not intended by immobilisation or support of the injured part?

- a. Lessen pain.
b. Prevent further damage to soft tissue.
c. Reduce the possibility of loss of circulation to the injured part.
d. Straighten the fractured bone.

6. Briefly describe how an injured part could be supported.

.....
.....

7. Briefly describe how an injured part could be immobilised.

.....
.....

8. Briefly describe how a splint should be applied to properly immobilise the broken bones in a forearm.

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.....

9. What is the first concern when about to treat an electrical injury?

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10. Briefly describe the initial procedure when a casualty is unconscious.

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11. List three symptoms of shock.

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12. Apart from ABC procedure, control of bleeding and notifying the ambulance, what first aid should be given to help a person suffering from shock?

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13. Which of the following best describes a third degree burn.?

- a. Heat has destroyed the first layer of skin.
- b. Heat has destroyed the second layer of skin.
- c. Heat has destroyed tissue, fat and blood vessels under the skin.
- d. Heat has caused the skin to blister.

14. List four basic steps in giving first aid for burns and scalds.

- a.
- b.
- c.
- d.

15. List the four basic steps for administering mouth to mouth resuscitation.

- a. _____
- b. _____
- c. _____
- d. _____

16. Begin mouth to mouth resuscitation by giving:

- a. Ten full breaths in ten seconds.
- b. Five full breaths in ten seconds.
- c. Ten full breaths in five seconds.
- d. Five full breaths in five seconds.

17. If the casualty hasn't commenced breathing after the initial mouth to mouth breaths, continue by giving one breath every four seconds.

- a. True
- b. False

18. Complete the following sentence:

Cardiac arrest occurs when the heart _____ or fails to beat regularly enough to _____ effectively.

19. List the three signs of cardiac arrest.

- a. _____
- b. _____
- c. _____

20. External cardiac compressions are carried out with the heel of the hand on the casualty's chest as illustrated in the photograph on the right. Briefly describe the correct hand position.



21. Cardiopulmonary resuscitation (CPR) is a combination of external cardiac compression and expired air resuscitation. Which of the following represents one cycle of CPR.

- a. Ten chest compressions and ten full breaths.
- b. Five chest compressions and two full breaths.
- c. Ten chest compressions and five full breaths.
- d. Fifteen chest compressions and two full breaths.

