

# Burpengary State Secondary College

BURPENGARY  
STATE SECONDARY COLLEGE



**Hospitality and Textiles Department**

**Food and Textiles Technology**

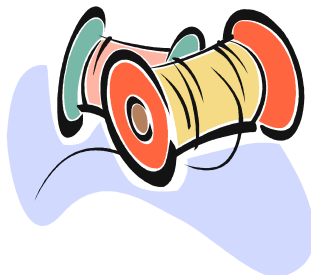
**YEAR 7, 2016**

## **STUDENT BOOKLET**

NAME: \_\_\_\_\_

CLASS: \_\_\_\_\_ TEACHER: \_\_\_\_\_

**I'm Sew Excited**



## Year 7 – “I’m Sew Excited”

Week	Theory	Practical	Homework
1	Vocabulary List Textile Room Safety Parts of a sewing machine	Paper sewing practice sheet Machine Threading	Study “Sewing Machine Safety” worksheet
2	Machine settings “Sewing Machine Safety” test	Revise machine threading Bobbin threading Fabric sewing sampler	
3	Care and Use of Machine Using a Sewing Machine Sewing Equipment  Machine seams	Machine hems Hand sewn hems Fabric Sewing sampler	Folio Study “Electric Iron Safety” worksheet
4	Pull a Fabric Apart Parts of the Fabric “Electric Iron Safety” test	Machine hem Zig-zag seam	Folio
5	Fabric Characteristics	Machine seams Zig-zag seams	
6	Bookmark	Machine seams Measuring pencil case panels Reading instructions Bookmark	Folio
7	Extending sewing knowledge – changing the machine settings to match the product (zipper foot) Measure and cut pencil case panels	Pencil case sewing Inserting zips – basic method Reflection sheet discussed	Folio Due for mid term check
8	Guide to Care Symbols Decoding Care Symbols	Pencil case sewing	Reflection sheet
9	Pencil case care label Pencil case sewing	Pencil case sewing Reflection sheet	
10	Practical sewing item	Practical sewing item	
11	Practical sewing item due	Folio due	Prac Assessment Due (Pencil case & Folio of samplers)

## Vocabulary List

**Practise these words weekly and ensure you know the meaning of them.**

Machine

Textile

Thread

Bobbin

Needle

Fabric

Measuring

Evaluate

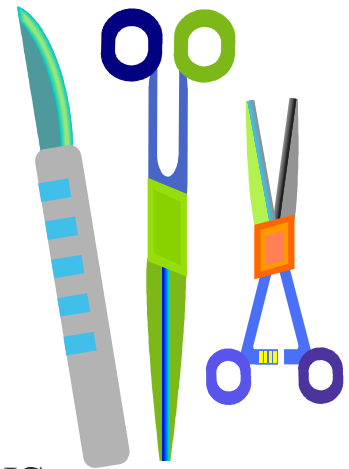
Reflection

Justify

# TEXTILE ROOM SAFETY

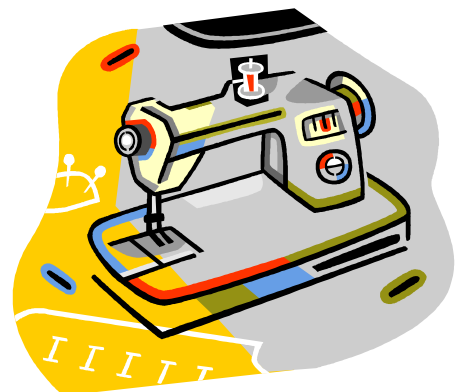
## AREAS OF DANGER IN THE TEXTILE ROOM

- 1) E \_\_\_\_\_
- 2) S \_\_\_\_\_ M \_\_\_\_\_ (especially the needle)
- 3) P \_\_\_\_\_ left on the floor and benches
- 4) C \_\_\_\_\_ left out and blocking walk ways
- 5) Unprotected f \_\_\_\_\_.
- 6) S \_\_\_\_\_ objects



## TEXTILE ROOM SAFETY EXPECTATIONS

- 1) When working with power, be sure to:
  - a) T \_\_\_\_\_ power off after use.
  - b) Remove cords by the p \_\_\_\_\_.
  - c) Before turning power on to machine plug in the cord at both the m \_\_\_\_\_ and the w \_\_\_\_\_.
- 2) Wear \_\_\_\_\_ shoes.
- 3) When using the machine, keep hands clear of the \_\_\_\_\_.
- 4) Sit at machine benches only when \_\_\_\_\_.
- 5) Be careful of placement of \_\_\_\_\_ objects.
- 6) Push chairs in when moving around the room.



Be a super sleuth and spot unsafe practices illustrated in the following cartoon.



*"Don't worry, I've got everything under control."*

Discuss these situations with your classmates and compile a list of points for **Safety in the Textiles Room**.

Write down the list of safety rules your class has prepared.

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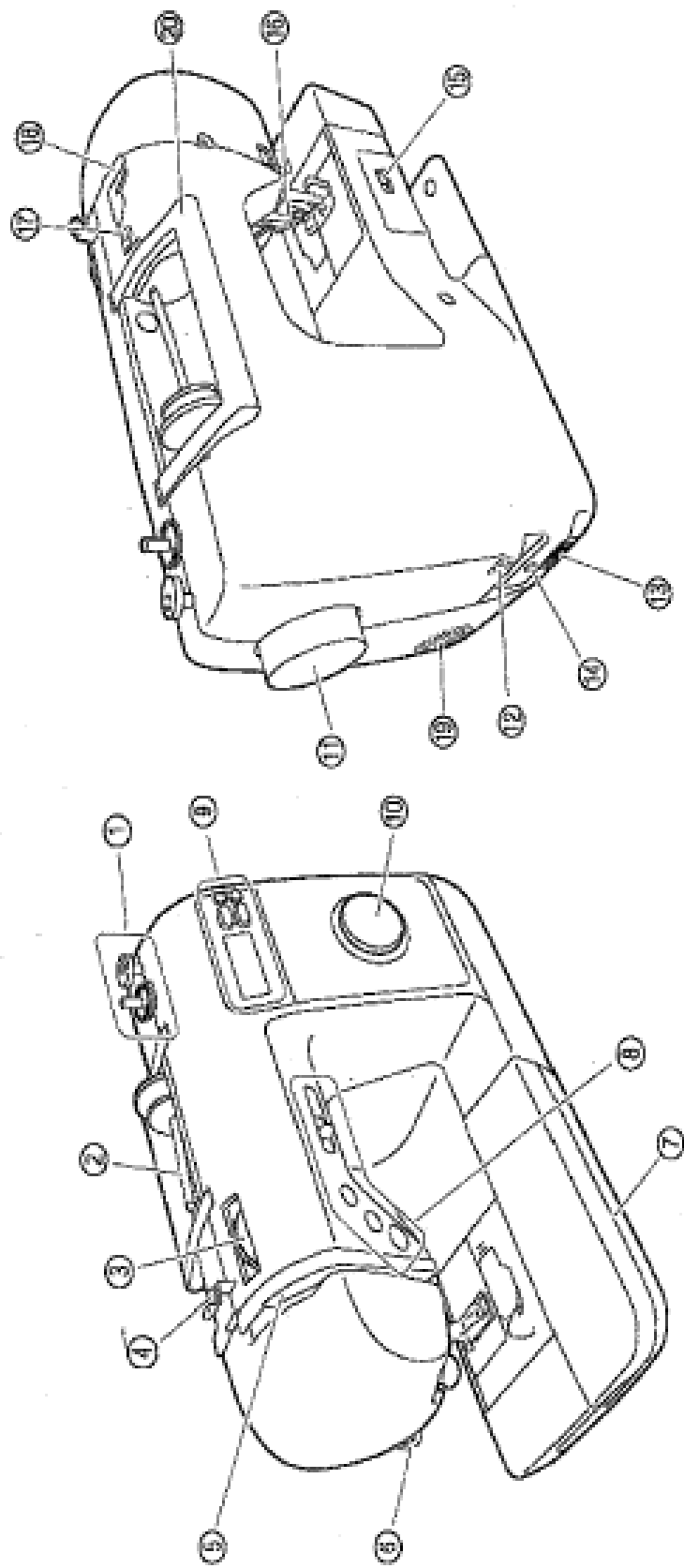
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Develop good sewing practices now and enjoy a safe working environment.





Handle, thread guide, presser foot lever, air vent, thread guide cover, operation panel, pattern selection dial, thread cutter, bobbin winding thread guide and pretension disc, bobbin winder, thread tension dial, spool spin, thread take-up lever, flat bed attachment, operational buttons and sewing speed controller, handwheel, power supply jack, main power switch, foot controller jack, feed dog position switch

## CARE AND USE OF MACHINE

1. The person using a machine should learn to \_\_\_\_\_ and care for it properly.
2. All moving parts in contact should be covered with a film of \_\_\_\_\_ regularly.
3. Foot pedal should \_\_\_\_\_ when filling the bobbin.
4. Do not work machine with \_\_\_\_\_ lowered or needle \_\_\_\_\_ except when sewing.
5. \_\_\_\_\_ must be kept closed.
6. Needle should be \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ for material and cotton used. Care must be taken that needle is in \_\_\_\_\_.
7. Tension of thread and bobbin thread should be \_\_\_\_\_. Use same thickness cotton.
8. Machine should be kept free from dust by cleaning and \_\_\_\_\_ when not using.
9. \_\_\_\_\_ of electric machine should be lubricated every six months.

### USE OF MACHINE

#### TO TURN A CORNER:

1. Stop machine, leaving needle in material.
2. Raise foot and turn work as desired.
3. Lower foot and continue to sew.

#### TO ALTER LENGTH OF STITCH:

1. Press + or - buttons to lengthen stitch or shorten stitch.

#### TO TAKE THE NEEDLE OUT:

1. Raise the needle bar to its highest point by moving balance wheel forward.
2. Lower foot.
3. Loosen screw in needle clamp with one hand and remove needle with other hand.

#### TO SET A NEEDLE:-

1. Turn balance wheel forward till needle bar moves up to highest point.
2. Lower foot.
3. Loosen screw in needle clamp.
4. Put needle in clamp as far as it will go with flat side towards the back.
5. Tighten screw.

## USING A SEWING MACHINE

1. Plug in the lead and foot pedal to the machine and the power point, then \_\_\_\_\_.
2. Fill the \_\_\_\_\_ with the right coloured \_\_\_\_\_.
3. Thread the machine.
4. Pull up the \_\_\_\_\_ thread. (Hold the thread from the \_\_\_\_\_ firmly at the same time.)
5. Slip the fabric in under the \_\_\_\_\_ . (The needle must be \_\_\_\_\_.)
6. Lower the pressure foot onto the \_\_\_\_\_.
7. Turn the \_\_\_\_\_ with your hand to push the needle \_\_\_\_\_.
8. Push the foot \_\_\_\_\_ with your foot and continue to \_\_\_\_\_.
9. Go backwards and forwards at the start and the \_\_\_\_\_ of your seam. This stops it from becoming \_\_\_\_\_.
10. When seam is completed, lift the \_\_\_\_\_ foot, pull the fabric out and cut the \_\_\_\_\_.
11. Turn the machine off and unplug. Return thread and \_\_\_\_\_ to the \_\_\_\_\_.



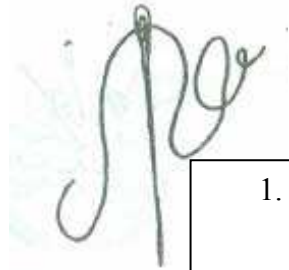


# SEWING EQUIPMENT

A task of all beginner sewers is to become familiar with the various types of equipment available to them.

Below is a number of sewing equipment which you may come in contact with.

For each state their name and use –



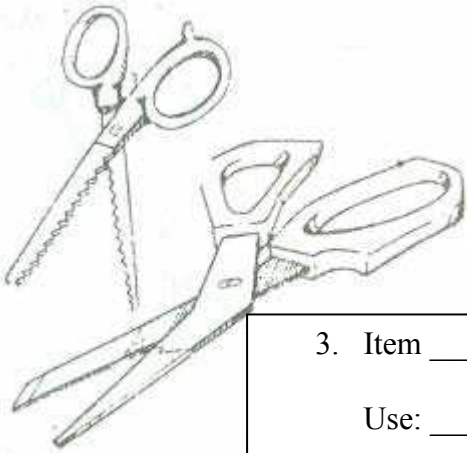
1. Item \_\_\_\_\_

Use: \_\_\_\_\_



2. Item \_\_\_\_\_

Use: \_\_\_\_\_



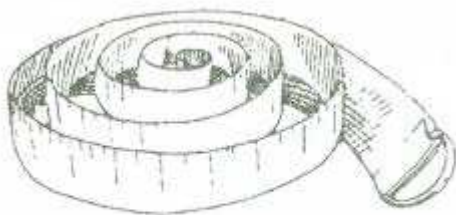
3. Item \_\_\_\_\_

Use: \_\_\_\_\_



1. Item \_\_\_\_\_

Use: \_\_\_\_\_



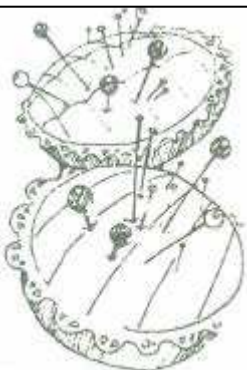
5. Item \_\_\_\_\_

Use: \_\_\_\_\_



6. Item \_\_\_\_\_

Use: \_\_\_\_\_



7. Item \_\_\_\_\_

Use: \_\_\_\_\_

## PULL A FABRIC APART

Material is often called FABRIC. So, let's pull some fabric apart to find out how it is made.

1. Take a 5 cm square sample of your fabric used to make your garment.

- What is the name of your fabric?

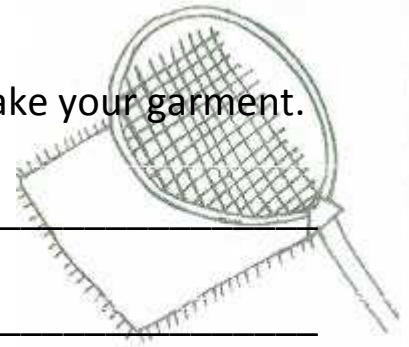
\_\_\_\_\_

- What fibre is it made from?

\_\_\_\_\_

- Is this fibre natural or man-made?

\_\_\_\_\_



2. Look at the material under a hand lens or magnifying glass.

\* Notice that the fabric is made by interweaving threads at right angles to each other.

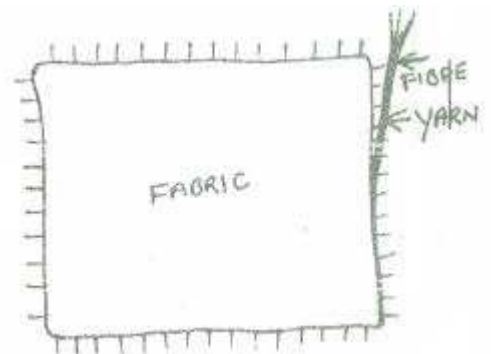
3. Separate the threads. Take a pin. Separate the threads that have been used to weave the fabric.

\* Notice how the threads go under & over each other. These threads are also called yarns.

4. Pull apart one of the yarns with a pin.

\* Notice 2 things.

- Each yarn separates into tiny hairy fibres.
- That the fibres have been twisted together to make the yarn.



Use the hand lens to have a closer look at these tiny fibres.

### YOUR SAMPLE

Glue your sample of material underneath. Name these parts -

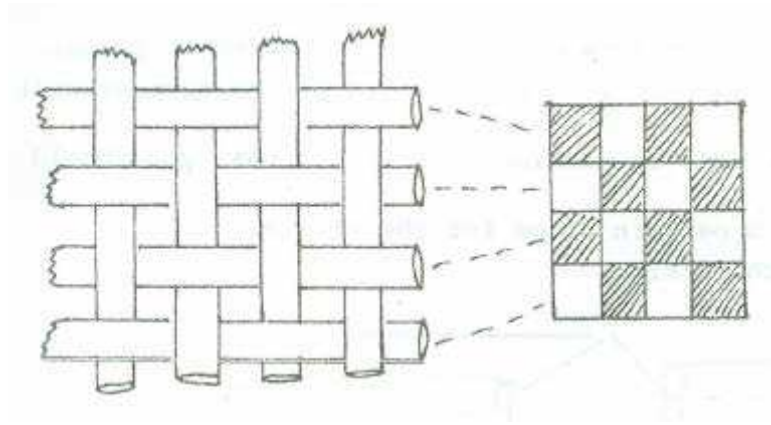
FIBRE

YARN

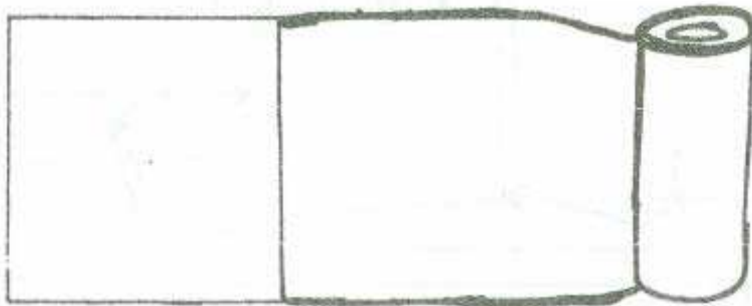
FABRIC.

# PARTS OF THE FABRIC

HOW IS FABRIC WOVEN?:



Label the parts of the fabric.



What do these parts mean?

SELVEDGE:

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BIAS:

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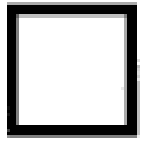

























WARP YARNS:

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## Fabric Characteristics

# ASTM GUIDE TO CARE SYMBOLS

 <b>Wash</b>	<p><b>Machine wash cycles</b></p>    <p>normal permanent press delicate / gentle</p> <p><b>Water temperatures (maximum)</b></p> <table border="1" data-bbox="592 479 975 622"> <tr> <td>very hot (140F)</td> <td>hot (120F)</td> <td>warm (105F)</td> <td>cool/cold (65-85F)</td> </tr> <tr> <td>60 •••</td> <td>50 •••</td> <td>40 ••</td> <td>30 •</td> </tr> </table> <p>symbol (s) dots &amp; °C.</p>  <p>hand wash</p>	very hot (140F)	hot (120F)	warm (105F)	cool/cold (65-85F)	60 •••	50 •••	40 ••	30 •	<p><b>Warning symbols for laundering</b></p>  <p>do not wash</p>  <p>do not bleach</p>  <p>do not dry (used with do not wash)</p>  <p>do not iron</p>
very hot (140F)	hot (120F)	warm (105F)	cool/cold (65-85F)							
60 •••	50 •••	40 ••	30 •							
 <b>Bleach</b>	 <p>any bleach when needed</p>  <p>only non-chlorine bleach when needed</p>	<p><b>Additional instructions (in symbols or words)</b></p>  <p>do not wring</p>  <p>do not tumble dry</p>  <p>dry flat</p>								
 <b>Dry</b>	<p><b>Tumble dry cycles</b></p>    <p>normal permanent press delicate / gentle</p> <p><b>Tumble dry heat setting</b></p>      <p>any heat high medium low no heat/air</p>  <p>line dry / hang to dry</p>  <p>drip dry</p>  <p>dry flat</p>	 <p>in the shade (added to line dry, drip dry, or dry flat)</p>  <p>no steam (added to iron)</p>								
 <b>Iron</b>	<p><b>Iron when needed—dry or steam</b></p>    <p>maximum temperature 200°C (380F) high 150°C (300F) medium 110°C (230F) low</p>	 <p>do not dryclean</p>								
 <b>Dryclean</b>	<p><b>Dryclean - normal cycle</b></p>  <p>any solvent</p>  <p>perchloroethylene or petroleum solvent</p>  <p>petroleum solvent only</p>	<p><b>Dryclean - modified cycle</b></p>  	 <p>do not dryclean</p>							

Note: As a minimum, laundering instructions include, in order, four symbols: washing, bleaching, drying, and ironing; and, drycleaning instructions include one symbol. Additional symbols or words may be used to clarify the instructions. Actual water temperatures obtained in the home are dependent upon the washing machine settings (hot, warm, cold), regional water supply temperatures, water heater settings, and regulations governing these conditions.

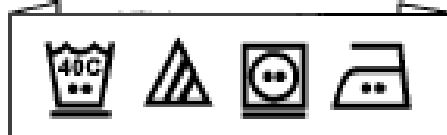
Adapted from ASTM D5489-96c: Standard Guide to Care Symbols for Care Instructions on Textile Products  
 For voluntary standard information contact: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19380-2999

## DECODING CARE SYMBOLS

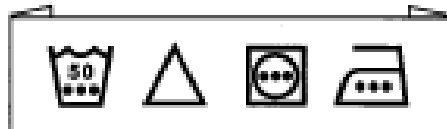
**Objectives:** I will read and write care labels using words and symbols.  
I will understand textile legislation and labeling in the global economy.

Directions: Care instructions are reported on apparel and home furnishings in words and in symbols. To learn what these symbols mean, try decoding these care labels. Use the ASTM OR CLOROX CARE SYMBOL CHART.

1.



2.



**Draw a care label in symbols for:**

3.

MACHINE WASH WARM, ONLY  
NON-CHLORINE BLEACH WHEN NEEDED,  
TUMBLE DRY MEDIUM, WARM IRON IF  
NEEDED



Continues on back

NAME \_\_\_\_\_

Date \_\_\_\_\_

Date Due: \_\_\_\_\_



**Draw a care label in symbols for:**

6. MACHINE WASH WARM, PERMANENT PRESS CYCLE, ONLY NON-CHLORINE BLEACH WHEN NEEDED, TUMBLE DRY LOW, IRON LOW IF NEEDED



**Draw a care label in symbols for:**

7. DRYCLEAN, PETROLEUM SOLVENT ONLY, LOW IRON IF NEEDED



**What is the simple pattern used for the ASTM care symbol system?**

8. TEMPERATURE OF SETTING:

Hot or High = \_\_\_\_\_

Warm or Medium = \_\_\_\_\_

Cool, Cold or Low = \_\_\_\_\_

MACHINE CYCLE:

Normal Cycle =                      No Underline

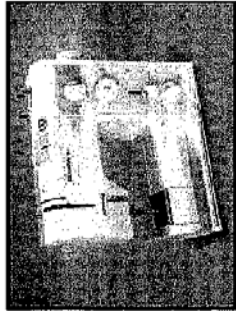
Permanent Press Cycle = \_\_\_\_\_

Gentle or Delicate Cycle = \_\_\_\_\_

## Safe Working Procedures and Instruction

### Sewing Machine

The risk of injury when using this machine is MODERATE – Level 2 Risk



The modern sewing machine has many features and easy convenience. Ideal for sewing quilts, crafts and garments, these machine offers practical and decorative stitches plus an easy-to-sew buttonhole.

And every stitch is perfectly balanced and evenly placed right where you want it.

Stitch selection is fast and easy. Some machines tell you which presser foot, stitch length and width, and needle position you'll need for the best result.

There's also a handy thread cutter, a bobbin winder you can't overfill, and a host of other features that make sewing simple and fun.

#### Identified Risks and Hazards

Hazards that may be encountered when conducting sewing activities include:

- cuts and injuries from sharp edges, knife blades, scissors and pins
- burns electrocution
- finger injuries while sewing
- back injury from poor posture
- eye strain from poor lighting
- back injury from improper lifting procedures

#### Pre-Operational Safety

The following safety checks and precautions should be carried out when preparing to set up and use the sewing machine in the textiles area:

- Ensure you have had instruction and training in the use the sewing machine and satisfactorily completed the relevant OHS test.
- The sewing machine should be turned off and isolated from the main electricity supply when not in use.
- The operator should seek permission from the teacher before using the sewing machine.
- Always check that the sewing machine and its cord are in good working order.
- Check all adjustments and settings carefully before commencing any sewing operation.
- The work area should be clean and free of equipment, rubbish and other obstacles

#### Operating Safety Precautions

- Make sure all other students keep away from the immediate work area at all times.
- Do not wear loose clothing, especially long sleeves and neck ties.
- Remove the cover from the sewing machine and place it on the back of the chair before use.
- One person only is to operate a sewing machine at any time.
- Do not touch a sewing machine whilst another person is operating it.
- Turn the power off when making adjustments to the sewing machine. Examples include changing the presser foot and the needle.
- Never race the sewing machine at high speed.
- Take care not to machine over pins.
- Make sure the take-up lever is in the upper most position before pulling out the fabric and cutting threads.

#### Maintenance

##### Cleaning

It is important to keep the machine as free of lint as possible.

##### Shining

Wipe the surface of the machine with a clean, soft, damp cloth. Do not use abrasives on your machine and do not place pieces of tape on it. Seam guides can be purchased from your dealer. Clean the LCD screen with a soft, damp cloth and never use alcohol or solvents on the machine.

##### Storage

Avoid exposing the sewing machine to extreme temperatures. Do not store it in a room that is cold, hot, or humid. Cover the machine when not in use to keep dust and lint to a minimum.

#### Operating Procedures and Precautions

##### Electrical Currents

Do not use the machine during a thunderstorm and unplug your machine when not in use at any time.

##### Fabric Flow

Do not push or pull fabric while sewing. Let the machine do the work—your hands should guide the fabric without forcing it.

##### Needle and Thread

Your teacher will replace the needle as necessary. If the needle breaks, report it to your teacher. Pins

Do not sew over pins. Not only will this blunt or dull the needle, it can also cause firming problems if the needle strikes a pin hard enough to affect the alignment of the needle bar.



#### **Maintenance**

Always unplug the machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.

#### **Cleaning**

It is important to keep the overlocker as free of lint as possible.

#### **Shining**

Wipe the surface of the machine with a clean, soft cloth. Do not use abrasives on your machine and do not place pieces of tape on it. Clean the LCD screen with a soft, damp cloth and never use alcohol or solvents on the machine.

#### **Storage**

Avoid exposing the overlocker to extreme temperatures. Do not store it in a room that is cold, hot, or humid. Cover the machine when not in use to keep dust and lint to a minimum.

#### **Re-lamping**

If the bulb is blown, report it to your teacher.

#### **Operating Procedures and Precautions**

##### **Electrical Currents**

Do not use the machine during a thunderstorm and unplug your machine when not in use at any time.

##### **Fabric Flow**

Do not push or pull fabric while sewing. Let the machine do the work—your hands should guide the fabric without forcing it.

##### **Needle and Thread**

The teacher will replace the needle as necessary. If the needle is broken report it to the teacher immediately.

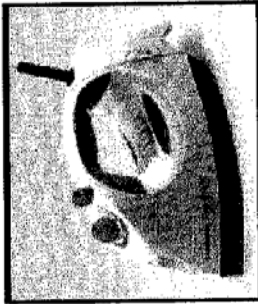
##### **Pins**

Never sew over pins. Not only will this blunt or dull the needle, it can also cause timing problems if the needle strikes a pin hard enough to affect the alignment of the needle bar. The pin could strike you and cause injury.

## Safe Working Procedures and Instruction

### Electric Iron

The risk of injury when using this machine is **LOW - Level 1 Risk**



All fabrics (natural or synthetic) are made of several textiles woven together. These fibres are naturally different in shape.

When a fabric is washed, the combined action of water and heat slackens fibres and restores their natural shape and position.

When the fabric dries, the fibres become rigid and take anarchic shapes and positions.

Irons simply use heat and pressure applied by the soleplate to return the fibres to their rightful place: either by removing creases or by forming them.

Steam irons have an additional advantage as steam slackens textile fibres before drying them, thereby considerably increasing the efficiency and ease of ironing.

#### Identified Risks and Hazards

Hazards that may be encountered when using the electric iron include:

- burns from steam or the sole plate of the iron
  - fire from fabric catching alight
  - electrical faults
  - dropping the iron onto the feet
  - back injury due to poorly adjusted ironing table
- Burns can occur from touching hot metal parts, hot water or steam. Use caution when you turn a steam iron upside down - there may be hot water in the reservoir.

#### Pre-Operational Safety

The following safety checks and precautions should be carried out when preparing to set up and use the electric iron in the textiles area:

- Ensure you have had instruction and training in the use the iron and satisfactorily completed the relevant OHS test.
- Electrical equipment must be isolated from the main electricity supply when not in use.
- The operator should seek permission from the teacher before using iron.
- Always check that the iron and its cord are in good working order.

- Check all adjustments and settings carefully before commencing any ironing operation.
- Check the water level of the iron and make sure it is not topped beyond the full level.
- Make sure the iron is turned off before filling it with water.
- The work area should be clean and free of equipment, rubbish and other obstacles.
- Set up the ironing board at the right height for you.
- Whether you're sitting or standing, you should be able to place your palms on the board without bending your arm or your back.
- Adjust the temperature correctly. Consult labels for manufacturers suggestions. For blended fabrics, set the temperature according to the most delicate fabric in the blend.

#### Operating Safety Precautions

- Ensure that the workpiece rests flat on the ironing table at all times.
- Allow the iron to reach maximum temperature before applying pressure.
- Never stand in an awkward or unbalanced stance while ironing.
- Keep hands well away from the sole plate when the iron is operating.
- When the ironing operation has finished, switch the iron off and wait until the sole plate has cooled down before placing it in the storage area.
- Make sure all other students keep away from the immediate work area at all times.
- Do not wear loose clothing, especially long sleeves and neck ties.
- Never leave the iron unattended when turned on and in use.
- Check with the teacher about the fabric type before ironing and set the iron to the correct temperature for the fabric. The settings are:
  - cotton - high
  - silk and wool - medium
  - man made fibre - low
- Make sure the ironing board is set at an appropriate height and is stable.
- If steam is required to iron the garment, adjust the iron to the steam setting.
- Do not use the iron with an extension cord unless the cord has been tested and tagged.
- Keep fingers away from the iron's heating sole plate whilst ironing.
- Turn the iron off after use and remove the electrical plug from the power point.
- Always leave the iron in an upright position when not in use.
- Do not wind the cord around the sole plate while the iron is still hot.

#### Daily Maintenance

Daily maintenance of the electric iron should include checking the condition of the sole plate, checking the operation and height of the ironing table and checking the condition of the electrical cord and plug.

#### **Iron Storage**

- Remove the cord from the outlet by grasping the plug rather than pulling the cord.
- Empty the water tank **AFTER EACH USE** while the iron is still **HOT**.
- Allow the iron to **COOL COMPLETELY** before putting it away. Wrap the cord loosely around the heel rest. **WRAPPING TOO TIGHTLY CAN DAMAGE THE CORD.**
- Always store the iron **ON ITS HEEL REST** with the temperature control knob in the **MIN** position.
- **DO NOT** store in the carton, as any residue of moisture may cause the soleplate to discolour.

#### **Additional operating procedures and precautions**

##### **Selecting the Correct Fabric Setting**

- When ironing, use the temperature and steam settings recommended for the type of fabric being ironed.
- Garments requiring low temperatures and steam should be ironed first. This will help avoid damaging garments with a too hot iron.
- If you are not sure of the fabric content of the garment, start with a low heat and steam setting and test the iron on an area of the garment where it will not show, such as a seam or facing. Gradually increase the heat and steam settings until wrinkles are removed without damaging the fabric.
- When changing the temperature from a high setting to a lower setting allow approximately 2 minutes for the lower temperature to be reached.
- Check garment labels and follow recommendations given by the manufacturer. For blended fabrics use the setting for the fabric in the blend requiring the lowest temperature, for example: 65% polyester, 35% Cotton fabric.

##### **Using as a Steam Iron**

- When using as a steam iron be sure the temperature setting is within the **STEAM** range on the temperature selector to avoid spotting the garment.
- Fill the iron with water, plug the cord into an electrical outlet. Allow 2 minutes for the iron to reach the desired temperature and remove from the heel rest and use.
- When steam ironing, if the temperature control setting is accidentally lowered, water may appear on the soleplate, indicating that iron temperature has dropped below steaming level. If this should occur, reset temperature control to desired level. Rest the iron on its heel rest for 1 minute to allow it to reach temperature.
- If the iron starts losing its flow of steam and you wish to continue steam ironing, you may refill without cooling the iron, unplug the iron and **FILL THE WATER TANK**.