





# CONFECTIONARY PROCESSING LEVEL-II

Based on Feb. 2019, Version 2 Occupational standards (OS

Module: Standardizing and

**Sustaining 3S** 

- LG Code: IND COP2 M03 LO (1-3) LG (7-9)
- TTLM Code: IND CONP2 TTLM 1020V2

October, 2020







Table of Contents	
LO #1 Prepare for work	4
Instruction sheet	4
Information Sheet-1 Using work instructions	5
Self-Check -1	6
Information Sheet-2 Reading and interpreting Job specifications	7
Self-Check -2	8
Information Sheet-3 Observing OHS requirements	9
Self-Check -3	10
Information Sheet 4 Observing personal protection	11
Self-Check -4	12
Information Sheet 5 Identifying and checking safety equipment and tools	13
Self-Check -5	14
Information Sheet-6 Preparing and using tools and equipment	15
Self-Check -6	17
Operation sheet 1 Identify tools and techinques	18
LAP Test	19
LO #2 Standardize 3S	20
Instruction sheet	20
Information Sheet-1 Preparing and using plan	21
Self-Check -1	22
Information Sheet-2 Relevant procedures for standardizing 3S activities	23
Self-Check -2	24
Information Sheet 3 Preparing and implementing tools and techniques	25
Self-Check -3	
Information Sheet-4 Following Checklists for standardize activities	31
Self-Check -4	33
Information Sheet-5 Report to Relevant personnel	
Self-Check -5	





Information Sheet-6 Keeping the workplace to the specified standard	
Self-Check -6	
Information Sheet-7 Avoiding problems	
Self-Check -7	
LO #3 Sustain 3S	
Information Sheet-1 Preparing and following plan42	
Self-Check -1	
Information Sheet-2 Discussing, preparing and implementing tools and techniques . 47	
Self-Check -2	
Information Sheet-3 Inspecting workplace55	
Self-Check -3	
Information Sheet-4 Cleaning up the workplace58	
Self-Check -4	
Information Sheet-5 Identifying situations and taking actions	
Self-Check -5	
Information Sheet-6 Recommending improvements	
Self-Check - 6	
Information Sheet-7 Following checklists and reporting	
Self-Check -767	
Information Sheet-8 Avoiding problems70	
Self-Check 8	
Operation sheet 1mplementing sort activity71	
Operation sheet 2 implementing Set in order activity72	
Operation sheet 3 implementing Shine activity73	
LAP Test74	
Reference	
ACKNOWLEDGEMENT	





LG #7

LO #1 Prepare for work

#### Instruction sheet

This learning guide is developed to provide you the necessary information regarding the

following content coverage and topics:

- Using work instructions.
- Reading and interpreting Job specifications.
- Observing and identifying OHS requirements.
- Observing personal protection.
- Identifying and checking safety equipment and tools.
- Preparing and using tools and equipment.

This guide will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- work instructions.
- Use Read and interprete Job specifications.
- Observe and identify OHS requirements.
- Observe personal protection.
- Identify and check safety equipment and tools.
- Prepare and use tools and equipment.

#### Learning Instructions:

- **1.** Read the specific objectives of this Learning Guide.
- 2. Follow the instructions described below.
- 3. Read the information written in the information Sheets
- 4. Accomplish the Self-checks
- **5.** Perform Operation Sheets
- 6 Do the "LAP".TEST

#### 1.1 Using work instructions

The depths of knowledge about a particular field of interest, to complete the job and learn from it that marks the true enthusiast and the truly learned.

#### How to use work instructions

• **Soft Skills:** Soft skills include those skills which ensure that a job is executed well, and the employee can carry himself in the proper manner too. For example, good and smooth communication, computer skills, proficiency in language if needed, presentable appearance, the ability to manage crises are all soft skills which are fundamentally important in any job and which must be cultivated consciously. Thus, the requirements of a job, though specific to it, cover also a general spectrum. These make for better employees and better individuals.

#### 1.1.1 Work Instruction

Work instruction is a description of the specific tasks and activities within an organization. A work instruction in a business will generally outline all of the different jobs needed for the operation of the firm in great detail and is a key element to running a business smoothly. In other words it is a document containing detailed instructions that specify exactly what steps to follow to carry out an activity. It contains much more detail than a Procedure and is only created if very detailed instructions are needed. For example, describing precisely how a Request for Change record is created in the Change Management software support tool.

#### • Procedures vs. Work Instructions

Many people confuse "procedures" with "work instructions". In fact, most people write work instructions and call them procedures. Knowing the differences of procedures vs work instructions can help you understand the documentation process much better and, therefore, procedure documentation.

Procedures describe a process, while a work instruction describes how to perform the conversion itself. Process descriptions include details about the inputs, what conversion takes place (of inputs into outputs), the outputs, and the feedback necessary to ensure consistent results. The PDCA process approach (Plan, Do, Check, Act) is used to capture therelevantinformati

Page 5 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 uge 5 01 77	Author/Copyright	processing Level -2	October 2020	

Self-Check -1	Written Test

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers

## I say true or false the following questions

**1.** Many people confuse "procedures" with "work instructions (2point)

## II Explain the following questions

- 1. Define job? (4 points)
- 2. Describe the difference between procedure and work instruction? (4 points)

Satisfactory rating≥5 unsatisfactory rating≤5

Page 6 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Information Sheet-2	Reading and interpreting Job specifications
---------------------	---

### 2.1. Reading and interpreting Job specifications

A job specification is a detailed description of the role, including all responsibilities, objectives and requirements. A person specification is a profile of your ideal new employee, including skills, experience and personality type.

A job specification is a written statement of the minimum qualifications and traits that a person needs in order to perform the duties and undertake the responsibilities of a particular position. Specifications are developed as part of the job analysis process.

Job specification gives important details related to the job like education & skills, prior work experience, managerial experience; personality traits etc which would help an employee accomplish the objectives of a job.

A statement of employee/workers characteristics and qualifications required for satisfactory performance of defined duties and tasks comprising a specific job or function.

Page 7 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -2	Written Test

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

### I Say true or false the following question.

Job Specifications are developed as part of the job analysis process (2point)
II Explain the following question.

1. Define job specification? (5 point)

Satisfactory ratng≥3.5 unsatisfactory rating≤3.5

Page 8 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### 3.1 Observing OHS Requirements

OHS requirements are legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of firefighting equipment, enterprise first aid, hazard control and hazardous materials and substances.

Personal protective equipment includes those prescribed under legislation/ regulations/codes of practice and workplace policies and practices. Safe operating procedures include the conduct of operational risk assessment and treatments associated with workplace organization. Emergency procedures include emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.

Occupational safety and health (OSH) also commonly referred to as occupational health and safety (OHS) or workplace health and safety (WHS) is an area concerned with the safety, health and welfare of people engaged in work or employment. The goals of occupational safety and health programs include fostering a safe and healthy work environment. OSH may also protect co-workers, family members, employers, customers, and many others who might be affected by the workplace environment. In the United States the term occupational health and safety is referred to as occupational health and occupational and non-occupational safety and includes safety for activities outside work.

Occupational safety and health can be important for moral, legal, and financial reasons. In common-law jurisdictions, employers have a common law duty (reflecting an underlying moral obligation) to take reasonable care for the safety of their employees. Statute law may build upon this to impose additional general duties, introduce specific duties and create government bodies with powers to regulate workplace safety issues: details of this will vary from jurisdiction to jurisdiction. Good OSH practices can also reduce employee injury and illness related costs, including medical care, sick leave and disability benefit costs.

Page 9	of 77	
--------	-------	--

Salf Check 2	Written Test
Self-Check -3	

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

## I Say true or false the following questions.

- 1 Occupational safety and health can be important for moral, legal, and financial reasons (1point)
- II Explain the following questions
- 1. What is OHS represents for (4 point)
- 2. List some examples of OHS requirements in your work areas. (5 points)

Satisfactory rating≥ 5 unsatisfactory rating≤ 5

Page 10 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### 4.1. Observing personal protection

Although work provides many economic and other benefits, a wide array of workplace hazards also present risks to the health and safety of people at work. These include "chemicals, biological agents, physical factors, adverse ergonomic conditions, allergens, a complex network of safety risks," and a broad range of psychosocial risk factors.

## 4. 1.1 Physical and mechanical hazards

Physical hazards are a common source of injuries in many industries. They are perhaps unavoidable in certain industries, such as construction and mining, but over time people have developed safety methods and procedures to manage the risks of physical danger in the workplace. Employment of children may pose special problems. Falls are a common cause of occupational injuries and fatalities, especially in construction, extraction, transportation, healthcare, and building cleaning and maintenance.

An engineering workshop specializing in the fabrication and welding of components has to follow the Personal Protective Equipment (PPE) at work regulations 1992. It is an employer's/workers duty to provide 'all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work which protects him against one or more risks to his health and safety'. In a fabrication and welding workshop an employer would be required to provide face and eye protection, safety footwear, overalls and other necessary PPE.

Machines are commonplace in many industries, including manufacturing, mining, construction and agriculture, and can be dangerous to workers. Many machines involve moving parts, sharp edges, hot surfaces and other hazards with the potential to crush, burn, cut, shear, stab or otherwise strike or wound workers if used unsafely. Various safety measures exist to minimize these hazards, including lockout-tag out procedures for machine maintenance and roll over protection systems for vehicles.

Self-Check -4	Written Test

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

## I Say true or false the following questions

1 An engineering workshop specializing in the fabrication and welding of components has to follow the Personal Protective Equipment.(1point)

## II Explain the following question

1. List some of Physical and mechanical hazards (5 points)

Satisfactory rating≥ 3 unsatisfactory rating≤ 3

Page 12 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 12 01 77	Author/Copyright	processing Level -2	October 2020

## 5.1 Identifying and checking safety equipment and tools

Your employees may need personal protective equipment to evacuate during an emergency. Personal protective equipment must be based on the potential hazards in the workplace. Assess your workplace to determine potential hazards and the appropriate controls and protective equipment for those hazards. PPE may include items such as the following:

- Safety glasses, goggles, or face shields for eye protection;
- Hard hats and safety shoes for head and foot protection;
- Proper respirators;
- Chemical suits, gloves, hoods, and boots for body protection from chemicals;
- Special body protection for abnormal environmental conditions such as extreme temperatures.
- Any other special equipment or warning devices necessary for hazards unique to your worksite

#### 5.1.1 Undertaking basic safety checks on equipment and tools

#### • Pre-operational and post-startup checks

Those checks and inspections that are carried out on the excavator with grab prior to commencing any production tasks. Pre-operational checks should be performed in accordance the manufacturer's specifications (generally found in the operator's manual) and any relevant enterprise procedures. Ideally these checks are performed against a checklist which may also form part of the enterprise's quality and/or safety system

Page 13 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 13 01 77	Author/Copyright	processing Level -2	October 2020
		, 0	

Self-Check -5	Written Test

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

## I.Say true or false the following question.

1. Personal protective equipment must be based on the potential hazards in the workplace (1point)

## II Explain the following question

1. Write down safety equipment? (5points)

Satisfactory rating≥3 unsatisfactory rating≤3

Page 14 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 14 01 77	Author/Copyright	processing Level -2	October 2020

## 6.1 Preparing and using tools and equipment

You are required to prepare and use tools and equipment to implement sort, set in order and shine activities in to your work station. The following are some tools and equipment that help you in the implementation of 3S.

## • Tools and materials used to implement Sort activity

Tools and materials are required to implement sort, set in order and shine activities in work stations. The following are some tools and materials used to implement the first pillar of 5S-Sort.

- red tags
- sticker
- hook
- nails
- shelves
- chip wood
- sponge

## Tools and materials used to implement set in order

The following are some tools and materials used to implement the second pillar of 5S-Set in order.

- Labels
- Signs

• Figures

broom

etc...)

pencil shadow board/ tools board

formats (for recording necessary

and unnecessary

items,

plans

Partition lines

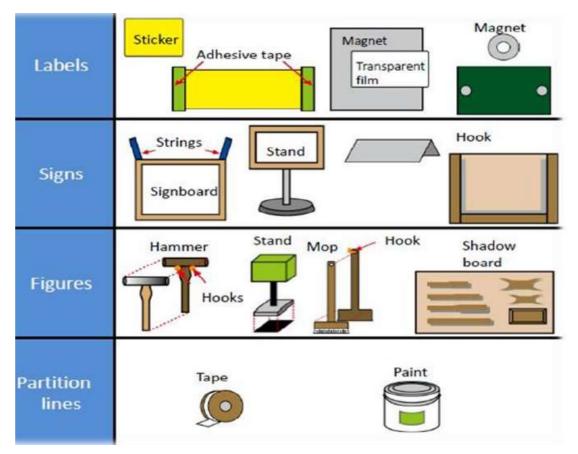


Fig 1.1 tools and materials used for set in order

#### Tools and materials used to implement shine

The following are some tools and materials used to implement the third pillar of 5S-Shine.

- sponges
- brooms
- brushes
- spades
- vacuum cleaners

- waste baskets
- dust bins
- gloves
- dust masks
- detergents

- containers
- oils
- bolts
- screws
- boots shoes, etc

Page 16 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -6	tten Test
---------------	-----------

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers

## II Explain the following questions.

- 1. What is red tagging? (5 point)
- 2. Write tools and materials used for set in order. (5 points)

Satisfactory rating≥5 unsatisfactory rating≤5

Page 17 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

## Procedure:

Step 1 Sort Step 2 Set in order Step 3 Shine

Page 18 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

LAP Test	Performance Test
Name	Date:
Time started:	Time finished:
Task 1: Identify and prepare tools	and techniques to sort, set in order

And shine activities.

Page 19 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### Instruction sheet

This learning guide is developed to provide you the necessary information regarding the

following content coverage and topics:

- Preparing and using plan.
- Relevant procedures in standardizing 3s
- Preparing and implementing tools and techniques.
- Following Checklists for standardize activities
- Reporting to relevant personnel
- Keeping the workplace to the standard.
- Avoiding problems.

This guide will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- Prepare and using plan. .
- Relevant procedures in standardizing 3s
- Prepare and implementing tools and techniques.
- Follow Checklists for standardize activities
- Report to relevant personnel
- Keep the workplace to the standard.
- Avoiding problems

#### Learning Instructions:

- 1. Read the specific objectives of this Learning Guide.
- 2. Follow the instructions described below.
- 3. Read the information written in the information Sheets
- 4. Accomplish the Self-checks
- 5. Perform Operation Sheets
- 6. Do the "LAP".TEST

Page 20	of 77
---------	-------

#### 1.1 Preparing and using plan

A Lean mindset should be established before even starting the processes of 5S. Accountability along with setting expectations is vital. What is expected and who and what will benefit from the changes?

When creating a plan, it is most helpful to start out with an actual business case or reason for the changes to be made. How will the improvement affect or benefit the bottom line? For instance, is there time being wasted searching for something? Or is there a lack of organization or a need for visual management? Pinpoint some of the most relevant needs in the particular work environment.

It is important to avoid trying to get the best Standard Operating Practices (SOPs) immediately. Likewise, it is also just as important not to impose specific SOPs on the teams. When employees are forced into doing something without being asked for input or thoughts, the first natural reaction is to actually resist the change.

## 1.1.1 How to Implement Standardize

The three steps to making Sort, Set in Order and Shine activities (the three pillars or 3S) a habit are:

- Step 1: Decide who is responsible for which activities with regard to maintaining 3S conditions.
- Step 2: To prevent backsliding, integrate 3S maintenance duties in to regular work activities.
- Step 3: Check on how well 3S conditions are being maintained.

As you read this section, you will discuss some of the tools for implementing Standardize of the Sort, Set in Order, and Shine activities. This is because in order to standardize we must use these same

tools in a more systematic way to make sure that the first three pillars are maintained.

Page 21 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 21 01 77	Author/Copyright	processing Level -2	October 2020	

Self-Check -1	Written Test

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers

## . I Explain the following questions

- 1. Describe the benefits from standardize. (5 points)
- 2. List problems that avoided by implementing standardize activities (5 points

Satisfactory rating≥5 unsatisfactory rating≤5

Page 22 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 4ge 22 01 77	Author/Copyright	processing Level -2	October 2020

#### 2.1. Standards for Sort

- Red Tag Rules
  - ✓ When to Red Tag
  - ✓ How to Red Tag
  - ✓ What's go on the Red Tag
- Rules for the Red Tag Holding Area
  - ✓ When to clear out
  - $\checkmark$  How to dispose of items

### .2.1.1.Standards for Set-in-order

- Which items
- Where
- How many
- Who replenishes
- Return all items...
- What to do when items are missing
- Visual standards signs, lines, labels and color coding

#### 2.1.2 Standards for Shine

- Clean and Inspect (C&I)
- Show the task, person responsible, items needed, frequency, desired workplace
- Where to keep cleaning supplies, how to replenish when finished and more.

Page 23 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 23 01 77	Author/Copyright	processing Level -2	October 2020

Self-Check -2	Written Test			
Directions: Name	ID	Date		
1. Which of the following standardizing 3S activities	5	Rules in preparing procedure	es for	

- - A. When to Red Tag C. What's go on the Red Tag
  - B. How to Red Tag D. All

2. Which of the following is not used in preparing procedures for standardizing shine activities?(5)

- A. Clean and Inspect C. person responsible
- B. Where to keep cleaning supplies D. All

Satisfactory rating – 5points Unsatisfactory - below 5 points

Page 24 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

### 3.1 Preparing and implementing tools and techniques

**Common Tools and Techniques to standardize 3S are:** 

- 5S Job Cycle Charts
- Visual 5S
- The Five Minute 5S
- Standardization level checklist
- 5S checklist
- The five Whys and one How approach(5W1H)
- Suspension
- Incorporation
- Use Elimination

The Three Steps to make the 3S Activities a Habit/Standardize using the Tools and Techniques of 3S Standardization

#### 3.1.1 Assign 3S Responsibilities

When it comes to maintaining three pillar conditions, everyone must know exactly what they are responsible for doing and exactly when, where and how to do it. If people are not given clear 3S job assignments based on their own workplaces, the Sort, Set in Order, and Shine activities will not have much meaning. Similarly, clear 3S instructions must be given to the people who deliver goods from outside suppliers. The delivery sites should be clearly marked and a 5S Map posted to show where each supplier's goods are to be unloaded. At each unloading site, signboards should make it clear whose things go where and in what amount. The suppliers should be made responsible for maintaining 3S conditions at their own unloading sites and encouraged to join in full 5S implementation.

#### • Integrate 3S Duties into Regular Work Duties

If people carry out three pillar maintenance duties only when they see three pillar conditions slipping, then the five pillar implementation has not yet taken root. Maintenance must become a natural part of everyone's regular work duties. words, the five pillars -centered on maintaining 3S conditions-must be part of the normal work flow. We sometimes refer to this

Page 25 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
	Author/Copyright	processing Level -2	October 2020	

as "5S line integration" or establishing a five pillars flow. Visual 5S and Five-Minute 5S are two approaches that help make maintenance work part of the everyday work routine.

## • The Concept of Prevention

When we find that tools have not been put back correctly, we immediately take care of them. When we find an oil puddle on the floor, we immediately mop it up. Making these actions habit is the foundation of Standardize. However, when the same problems keep on happening over and over again, it is time to take the concept of Standardize to the next level: prevention.

To take this pillar to a higher level, we must ask "why?" Why do unneeded items accumulate (despite Sort procedures)? Why do tools get put back incorrectly (despite Set in order procedure? Why do floors get dirty (despite Shine procedures)? When we ask "why" repeatedly, we eventually find the source of the problem and can address that source with a fundamental improvement. Such improvements can help us develop Unbreakable standardization, which means:

- Unbreakable sorting
- Unbreakable setting in order
- Unbreakable setting shining

## • Prevent unneeded items from Accumulating (Preventive Sort Procedures)

The Red-Tag Strategy described sorting out unneeded items. This strategy is a visual control method that enables anyone to see at a glance which items are no longer needed. However, we should note that the Red-Tag Strategy is an after-the-fact approach that deals with unneeded items that have accumulated. No matter how often we implement this strategy, unneeded items will accumulate in the interim.

Nowadays, smart companies are shifting from this type of "alter the-fact" sorting to preventive sorting. Preventive sorting means that instead of waiting until unneeded items accumulate; we find ways to prevent their accumulation. We could also call this approach "unbreakable' sorting because once sort procedures have been implemented, having only needed items in the workplace becomes an "unbreakable" condition.

To achieve unbreakable sorting we must prevent unneeded items from even entering the workplace. These words- «only what is needed" -have a familiar ring to anyone acquainted with the just-in- time (JIT) philosophy and program. To prevent the accumulation of

Page 26 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 uge 20 01 / /	Author/Copyright	processing Level -2	October 2020

unneeded inventory, we must find a way to procure and produce only those materials that are needed, only when they are needed, and only in the amount needed.

For example, suppose your company is scheduled to produce a certain number of units of a product during a particular month. Ideally, at the beginning of this month, only the parts needed to produce the scheduled number of units would be delivered to you from your suppliers. For any given part, your company might even receive the part in several deliveries, depending on the type of part and the delivery considerations.

Receiving parts just-in-time for production rather than storing large quantities of parts in advance eliminates many of the potential costs associated with maintaining inventory. As well, receiving parts just-in- time is a preventive measure that avoids the accumulation of parts that needed to be sorted.

## • Prevent Things from Having to Be Put Back (Preventive Set in Order Procedures)

Preventive setting in order means keeping set in order procedure from breaking down. To achieve preventive setting in order, we must somehow prevent the inefficiency that results from the lack of orderly control of any specific item. There are two ways to do this: (1) make it difficult to put things in the wrong place and (2) make it impossible to put things in the wrong place.

The first method relies heavily on discipline and visual controls. Clearly marked storage sites show at a glance what goes where and in what amount. When it is obvious what goes where and in what amount. When it is also obvious that things are not put back properly. As people practice returning things, such visual setting in order becomes habitual. This condition supports setting in order that is difficult to break. However, there is still a big difference between setting in order that is difficult to break and setting in order that is unbreakable. 'Why settle for the first when the second is possible? But how we achieve unbreakable setting in order?

## • The 5 Whys and 1How (5W1H) Approach

We begin by asking "why?" until we identify the underlying causes- for every answer we gel we must ask "why" again. Usually we ask "why" at least five times to get to the root of the problem. When we do find the underlying cause, we ask "how" we call fix it. Accordingly, this method is called the "5W1H' approach.

Page 27 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 4go 27 01 77	Author/Copyright	processing Level -2	October 2020

When we ask "why" setting in order is breakable, we find that one answer is because people make mistakes putting things back. At this point, we need to identify what types of items are not being returned correctly. Once we identify this, the question is how to achieve unbreakable setting in order by making it impossible to return them to

The wrong place. If we can somehow eliminate the need to return items at all, we can achieve unbreakable setting in order.

Three techniques for doing this are:

- Suspension
- Incorporation
- Use elimination.

### Suspension

In the Suspension technique, tools are literally suspended from above, just within reach of the user. Figure above shows this method in practice. Here a weighted pulley device is used to suspend tools from an overhead rack. When the operator finishes using the tool, he merely releases it and it automatically returns to its proper storage place.

While this technique does not eliminate the need to return items to a specific place, it does effectively eliminate the need for people to return them. People may make mistakes in returning things, but suspension devices do not. This technique achieves unbreakable setting in Order.

## • Corporation

Incorporation means creating a flow of goods or operations in a factory process in which (1) jigs, tools, and measuring instruments are smoothly integrated into the process and (2) such devices are stored where they are used and therefore do not have to be returned after use. The figure below shows an example where a measuring gate has been incorporated into a cutting process for an automobile part. The measuring gate catches any pieces that have not been machined to the correct height. This measuring procedure is an example of "mistake-proofing" (or poka-yoke). The incorporation of the measuring gate into the cutting process means that its storage place is also its place of use. It is therefore used (for full-lot inspection) without having to be put back anywhere.

## Use Elimination

Suspending or incorporating jigs, tools, or measuring instruments effectively eliminates the need to return them after each use. However, these items are still being used. The question is whether there is some way to serve the function of the tool without using the jig, tool or

Page 28 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	l
1 420 20 01 77	Author/Copyright	processing Level -2	October 2020	

measuring instrument. A set in or eliminates the use of a particular jig, tool or measuring instrument is in fact unbreakable setting in order.

## There are three techniques for eliminating the use of certain tools:

- Tool unification
- Tool substitution
- Method substitution

## Tool unification

Tool unification means combining the functions of two or more tools into a single tool. It is an approach that usually reaches back to the design stage. For example, we can reduce the variety of die designs to unify dies or make all fasteners that require a screw-driver conform to the same kind of screw-driver, flat-tip or Phillips.

## • Tool substitution

Tool substitution means using something other than a tool to serve the tool's function, thereby eliminating the tool. For example, it is sometimes possible to replace wrench-turned bolt with hand-turned butterfly-grip bolts, thereby eliminating the need for a wrench.

## • Method substitution

If we substitute ordinary wrench-turned bolts with hand-turned butterfly-grip bolts, we have eliminated the wrench, but we have not eliminated the method (bolt fastening).

Bolt fastening is just one way to fasten things. Fastening pins, clamps and cylinders can also be used for this purpose. *We* may find we can improve efficiency even more by replacing one method with another. This is "method substitution."

## • Prevent Things from Getting Dirty (Preventive Shine Procedures)

Preventives shine Procedures will prevent things from getting dirty to begin with. Anyone has participated in 5S implementation can tell you that the initial cleanup is very hard work. To minimize the drudgery of cleaning up, the key is to treat contamination problems at their source. The 5Why approach can be applied In figure out why dirt is being generated, and how this problem can be fixed. For example, instead of mopping up oil puddles, figure out where the oil is leaking from and repair the leak

Page 29 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 ugo 29 01 77	Author/Copyright	processing Level -2	October 2020	

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers

## II Explain the following question

- 1. Write techniques for eliminating the use of certain tools? (5 points)
- 2. List at least five tools and techniques used to standardize? (5 points)

Satisfactory rating≥5 unsatisfactory rating≤5

Page 30 of 77	Federal TVFT Agency	ral TVET Agency TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

## 4.1 Checklists for standardized activity

What is a checklist? A checklist is a tool for identifying the presence or absence of conceptual knowledge, skills, or behaviors. Checklists are used for identifying whether key tasks in a procedure, process, or activity have been completed. The tasks may be a sequence of steps or include items to verify that the correct sequence was followed. You may need to observe the tasks being followed because, in general, you cannot judge what tasks the learner did from the end product. Remember that some attitudes may be indirectly observed. For example, safety attitudes can be observed by seeing if safety equipment is worn. A checklist may also be given to students to follow in completing a procedure (e.g., in a shop or lab). A checklist itemizes task descriptions in one column and provides a space beside each item in a second column to check off the completion of the task.

## • Characteristics of checklists

Checklists should:

- have criteria for success based on expected outcomes
- be short enough to be practical (e.g., one sheet of paper)
- have tasks chunked into logical sections or flow from start to finish
- highlight critical tasks
- have sign-off points that prevent students from proceeding without approval, if needed
- be written with clear, detailed wording to minimize the risk of misinterpretation
- have space for other information such as the student's name, date, course, examiner, and overall result
- be reviewed by other instructors Instructional Job Aid |

Checklist example 1: Jack-up procedure

for Instructor:	e student will jack up a vehicle safely using the correct equipment the vehicle. Student ID:	
	e: Date: ature:	
Completed?	Using a Floor Jack and Jack Stand	
	1. Select the correct floor jack and stand for the vehicle.	
	<ol><li>Block the wheels, set the transmission, and apply the parking brake.</li></ol>	
	3. Identify the manufacturer-approved lifting points.	
	4. Place the floor jack under the lifting points	
	STOP! Instructor inspection and initials needed before proceeding	
	5. Jack up the vehicle.	
	STOP! Instructor inspection and initials needed before proceeding.	
	6. Lower the vehicle, remove the blocks, and return the equipment	
indicated, ask	ce a check mark in each box when the task is completed. As your instructor to inspect your work and initial this checklist. All e completed.	

Page 32 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -4	Written Test

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers

- I .Explain the following question.
- Write Characteristics of checklists? (5 points) Satisfactory rating≥2.5 unsatisfactory rating≤5

Page 33 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 55 01 77	Author/Copyright	processing Level -2	October 2020

## Information Sheet-5 Report to Relevant personnel

#### 5.1 Report to Relevant personnel

To enhance total participation at all levels of employees and develop a continuous improvement culture and best performance spirit in the teams, the formation of 5s council is very important. 5S implementation responsibilities are to be distributed throughout the organization. Every member must know their own 5S responsibilities and perform accordingly.

#### **Role and Responsibilities of Relevant Personnel:**

#### 5S Chairman:

- Communicates with everyone involved.
- Ensures total organization participation.
- Supports 5S implementation activities.
- Establishes accountability for assigned responsibilities.

#### 5S Coordinator:

- Communicates with everyone involved.
- Facilitate work group implementation activities.
- Motivate and monitor implementation activities.
- Ensure total organization participation.
- Act as a resource for information.

#### 5S Facilitators:

- Support 5S implementation.
- Communicate with everyone involved.
- Motivate work groups.
- Ensure employee implementation plan.
- Monitor measurement systems.

#### 5S Leaders:

- Participate in work group implementation process.
- Communicate with everyone involved.
- Monitor progress of group activities.

#### Employees' responsibilities:

Participate in group activities with full commitment

Page 34 of 77 Federal TVET Agency TVET program title- confectionary	Version -1	
Author/Copyright processing Level -2	October 2020	

#### **Directions:**

#### I choose the best answer from the given alternative.

1. Which of the following are the duties of 5S facilitators?

- A. Support 5S implementation. D. Ensure employee implementation plan.
- B. Communicate with everyone involved. E. All
- C. Motivate work groups.

#### I say true or false the following question

2.5S implementation responsibilities are to be distributed throughout the organization.

Satisfactory rating – 5 points

Unsatisfactory - below 5 points

Page 35 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 55 01 77	Author/Copyright	processing Level -2	October 2020

## 6.1 Keeping the workplace to the specified standard

#### • Sort

Sort means to get rid of all unnecessary items. Companies sell them, recycle them, or throw them away. And the best companies do this on an ongoing basis. Once you've gotten rid of all the crap by sorting, the next relevant activity is to sweep.

## • Sweep

Some people call this shine instead of Sweep. Sweep means to keep your workplace clean and tidy. It removes dirt, debris, oil, and grime and anything else. But the real heart of Sweep is inspection. Cleaning the workplace regularly gives you an ongoing opportunity to find problems and to address the sources of mess generators in your workplace. For example, instead of vacuuming up shavings from a table saw every day you might find opportunity to install a vacuum permanently onto the table saw with automatic turn on and shut off. That way the wood shavings never create a mess on the floor in the first place. But observations like this only happen when inspecting while you sweep.

## Standardize

The last activity of 3S is to Standardize. Standardization comes in many formats and some depend on the nature of your business and industry. This could be a document standard or a physical standard. It could be a work instruction, visual aid, form, or other document. Or it could be a physical label, a color coding system, a method or best practice, training, a set number, location, or layout of tools, or any other number of things.

I actually didn't see or understand the true value of standardization when I first learned about Lean. But it is actually incredibly important. You've got to learn to rapidly Standardize your incremental improvements if you're going to get anywhere with lean. If you don't Standardize your improvements, they never get any traction in your organization. They have no sticking power and don't get implemented. So standardization is huge. And it's a job that is too big for management to carry out alone. It's the duty of every employee to be constantly updating the standard way to do their work.

Page 36 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

So one more time, 3S describes three activities of lean. Sort is to get ride of the crap that is cluttering your workspace. Sweep is to keep it clean and tidy, and really to inspect things for potential problems. And Standardize is to keep your work standards current and updated; its the key to successful implementation and sustainment.

#### • How 3S Works In Practice

Now here's how it works in practice. Many companies practice 3S as part of a daily Lean Operating System. This is especially the case for companies practicing 2 Second Lean. What they will typically do is dedicate the first 15 minutes of the day to the three activities of 3S: sort, sweep, and standardize. And they do this every day with everyone in the organization. Even the CEO sweeps the floor and 3S's an area. No one is left out.

This basic habit is the starting place of lean practice and thinking.

Before we finish I want to dispel a few ideas about 3S. I've got four of them.

Page 37 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

	Self-Check -6	Written Test
--	---------------	--------------

Directions: Name......Date......

#### I Say true or false the following questions

1 Sort means to get rid of all unnecessary items (2point)

#### I Explain the following question

1. What is sweep? (5 points)

Satisfactory rating ≥3.5 unsatisfactory rating≤3.5

Page 38 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Information Sheet-7	Avoiding problems

#### 7.1. Avoiding problems

Standardization promotes productivity by eliminating inefficiency. This is the result of eliminating ambiguity and providing quality control: tasks are completed in a more efficient manner, and there are fewer quality control issues from tasks that were not completed correctly the first time around.

Another benefit of eliminating alternative procedures is the reduction of unhealthy competition and conflicts.

Let's say your organization has three different *semi*-formal systems for keeping track of workflows, each of which has its own constituency within the organization. Three different groups of people, three different systems — the conflicts are inevitable.

Even if all three systems are about equal in productivity, trying to coordinate them across your organization will probably lead to competition and conflict between the three different factions.

If everyone learns the same way of doing things and sticks to it, it will be easier for teams to work together. This means more productivity by virtue of synergy, and less time wasted trying to communicate across gaps in understanding and practice.

To be sure, it's unlikely that three different systems for keeping track of workflows, or performing any other important task, will be equally efficient. Even if they were, it would still make sense to standardize in order to reduce conflict.

Page 39 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -7 Written Test		Self-Check -7	Written Test
----------------------------	--	---------------	--------------

Directions: Name......Date......

## I Explain the question listed below.

How can avoid problem by standardizing? (5points)

Satisfactory rating ≥2.5 unsatisfactory rating≤2.5

Page 40 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### LO #3 Sustain 3S

#### **Instruction sheet**

This learning guide is developed to provide you the necessary information regarding the

following content coverage and topics:

- Preparing and following plan.
- Discussing, preparing and implementing tools and techniques.
- Inspecting workplace.
- Cleaning up workplace.
- Identifying situations and taking actions.
- Recommending Improvements.
- Following checklists and reporting.
- Avoiding Problems by sustaining activities

This guide will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- Prepare and following plan.
- Discuss, preparing and implementing tools and techniques.
- Inspect workplace.
- Clean up workplace.
- Identify situations and taking actions.
- Recommend Improvements.
- Follow checklist and reporting.
- Avoid Problems by sustaining activities

#### Learning Instructions:

- Read the specific objectives of this Learning Guide.
- Follow the instructions described below.
- Read the information written in the information Sheets
- Accomplish the Self-checks
- Perform Operation Sheets
- 6 Do the "LAP".TEST

**Information Sheet-1** 

#### Preparing and following plan

#### 1.1 Preparing and following plan

Usually you commit yourself to sustain a particular course of action because the rewards for keeping to the course of action are greater than the rewards for departing from it. Viewed another way, the consequences of not keeping to the course of action may be greater than the consequences of keeping to it. For example, suppose you want to start an exercise program –say you decide you want to work out at a gym three times a week. You probably have difficulty sustaining this course of action. This is because forces in your life, such as limits on your time and energy as well as the power of inertia, challenge this plan. However, if the rewards of sticking to your exercise program (for example, feeling and looking better) are greater than the rewards of not sticking to it (for example, having more time for other things that you need to do), your commitment will increase and you will probably sustain this program over lime.

The same principle applies in your 55 implementation. Without your commitment to sustain the benefits of the 5S activities, implementation of the first four pillars quickly falls apart (see Figure above). However, if the rewards of implementing the first four pillars are greater for you than the rewards of not implementing them, sustaining them through the fifth pillar should be some- thing you take to naturally. So, what are the rewards for you of implementing the first four pillars? You've probably discovered them for yourself at this point. Implementation of the first four pillars should make your workplace mare pleasant to work in, your job more satisfying and communication with your coworkers easier. it should also make your work more efficient and of better quality, which will hopefully lead to reward of your efforts by your company. It' true that the five pillars take time to implement, but this investment of time will bring a great return, for both you and your company.

#### • Creating Conditions to Sustain Your Plans

The implementation of the sustain pillar is different from that of the sort, set in order, shine, or standardize pillars in that the results are not visible and cannot be measured. Commitment to it exists in people's hearts and minds and only that have shows its presence. Because of this it cannot exactly be "implemented" like a technique, However, we can create conditions that encourage the implementation of the sustain pillar.

Page 42 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 42 01 77	Author/Copyright	processing Level -2	October 2020	

For instance, going back to our exercise program example, how could you create conditions in your own life that would encourage sustaining your plan to work out at a gym three time a week? You might:

- Join a gym with a friend so you can work out together and encourage each other (see Figure above).
- Create a workout schedule with your friend.
- Make a plan with your spouse to eat dinner later three nights a we so you can go to the gym after work.
- Get extra sleep on the nights before you work out, so that you will not be too tired by the end of the day to follow through with your exercise plan.

These conditions would make it easier for you to sustain your schedule for exercising at the gym three times a week.

Similarly, you and your company can create conditions or structure that will help sustain to the five pillars. The types of conditions that are most useful for this are:

- Awareness. You and your coworkers need to understand what the five pillars are and how important it is to sustain them.
- **Time.** You need to have or make enough time in your work schedule to perform 5S implementation.
- **Structure.** You need to have a structure for how and when 5S activities will be implemented.
- **Support.** You need to ha e support for your efforts from management in terms of acknowledgement, leadership, and resource
- **Rewards and Recognition.** Your efforts need to be rewarded.
- Satisfaction and Excitement. The implementation of the five pillars needs to be fun and satisfying for you and the company. This excitement and satisfaction gets communicated from person to person, allowing 5S implementation to build as it involves more people.

Page 43 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 43 01 77	Author/Copyright	processing Level -2	October 2020	

#### Roles in Implementation

In order to sustain 5S implementation in your company, both you and the company management have important roles to play. Part of this role involves creating the conditions that sustain 5S activities. The other part involves demonstrating a commitment to 5S yourself.

#### The Role of Management

The supervisors and managers in your company have a major role to play in ensuring the success of the five pillars by creating conditions that help sustain 5S activities. This role includes:

- educating you and your coworkers about 5S concepts, tools, and techniques;
- creating team for implementation
- allowing time for implementation and creating schedules for this work
- Providing resources for 5S implementation. such as supplies-s
- acknowledging and supporting 5S efforts
- Encouraging creative involvement by all workers, listening to their ideas, and acting on them.
- creating both tangible and intangible rewards for 5S efforts
- promoting ongoing 5S efforts

Your supervisors and managers also have an important role to play in implementing the fifth pillar in their own work. When they sustain the first four pillars, they perform three very important functions.

- improving the quality and efficiency of their own work
- teaching by example
- demonstrating the company's commitment to 5 implementation

#### ✤ Yours Role

Similarly, you have an important role to play in creating the conditions that Sustain 5S activities. This role includes:

- continuing to learn more about 5S implementation
- helping to educate your coworkers about the 5S

Page 44 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age ++ 01 / /	Author/Copyright	processing Level -2	October 2020
	, .		

- being enthusiastic about 5S implementation
- helping to promote 5S implementation efforts

You also have an important role to play in order to sustain 5S activities in your own work. This role includes:

- taking the initiative to figure out ways to implement the five pillars in your work on a daily basis
- asking your supervisor or manager for the support or resources you need to implement the five pillars
- participating fully in company 5S implementation efforts
- bringing to your supervisor or manager your creative ideas for promoting or implementing the five pillars
- participating fully in company 5S promotion efforts

Page 45 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -1 Written Test
----------------------------

Directions: Name......Date......

I say true or false the following question

1 In order to sustain 5S implementation in your company, both you and the company management have important roles to play. (2point)

#### II Explain the following question

1. Why planning Is Important? (5 points)

Satisfactory rating≥3.5 unsatisfactoryrating≤3.5

Page 46 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 40 01 77	Author/Copyright	processing Level -2	October 2020

## **Information Sheet-2**

# Discussing, preparing and implementing tools and techniques

#### 2.1 Common Tools and techniques to sustain 5s are:

There are many tools and techniques your company can use to help sustain commitment to 5S implementation. We offer these below so you will be aware of them. At some point in your 5S implementation work, you may be called upon to use or even coordinate the use of these techniques. These are:

- 5S slogans
- 5S posters
- 5S photo exhibits & storyboards
- 5S newsletter
- 5S maps
- 5S pocket manuals
- 5S department/benchmarking tours
- 5S months
- 5S audit
- Awarding system
  - ✤ 5S Slogans
- 5S Slogans communicate the themes of the five pillar campaign in your company.

They are most effective when they are suggested by you and your coworkers. They can be displayed on buttons, stickers, flags, or posters.

• It encourages all the participants.

#### Samples of slogan

"Refresh yourself and workplaces by 5S activity."

"Let's maintain current 5S activity and KAIZEN for tomorrow"

"We polish "Our Minds" as well us our factories"

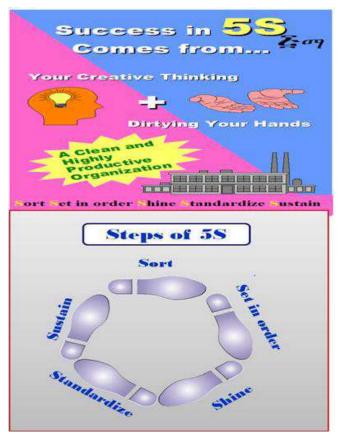
#### ✤ 5S Posters

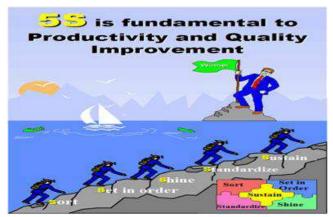
Page 47 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
	Author/Copyright	processing Level -2	October 2020	

- Big cleaning day
- Patrolling system
- Top management Patrol
- 5S Committee members and Promotion office Patrol
- Mutual patrol
- Self patrol
- Checklist patrol
- Camera patrol

Posters displaying 5S Slogans or descriptions of 5S activities can be posted throughout the workplace. They can serve to remind everyone of the importance of the five pillars, or to communicate the results or status of 5S activities.

#### Samples of poster





#### ✤ 5S Photo Exhibits and Storyboards

When it comes to communication about 5S implementation, the old saying that a "picture is worth a thousand words" is definitely true. Photo Exhibits and Story boards showing the before and after of 5S implementation activities are powerful tools for promoting the five pillars. Photos and Storyboards can also communicate the status of five pillar activities.

#### ✤ 5S Newsletters

55 Newsletters are in-house news bulletins centered on five pillar topics. They carry factory reports on 5S conditions and activities. 5S Newsletters are most effective when issued on a regular basis, perhaps once or twice a month and at staff meetings.

#### ✤ 55 Maps

Page 48 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 40 01 77	Author/Copyright	processing Level -2	October 2020

5S Maps can also be used to get employees involved in five pillar improvement on an ongoing basis. 5S improvement Maps should be hung in a central location with suggestion cards attached so anyone can suggest improvements.

#### ✤ 55 Pocket Manuals

A 5S Pocket Manual can be created that contains five pillar definitions and descriptions, and is small enough to fit into the pocket of work clothes. Shop floor workers, supervisors, and managers can all use SS Pocket Manuals for easy reference to the 5S essentials.

#### ✤ 55 Department Tours

When one department in a company has implemented the five pillars successfully, it can serve as a model area for other departments to come visit. Since "seeing is believing," this technique is extremely effective for promoting 5S implementation throughout a company.

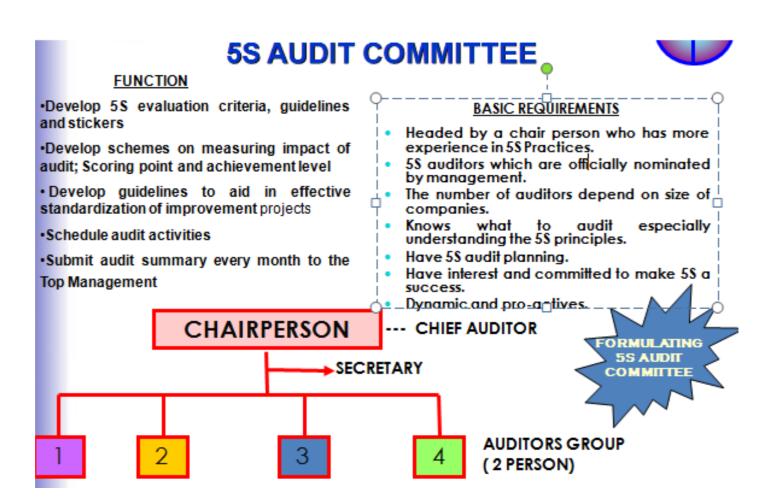
#### ✤ 55 Months

Companies should designate two, three, or four months every year as "5S Months." During these months, various activities such as 5S seminars, field trips, and contests can be carried out of further promote 5S implementation in the company.

#### 5s Audit

- The purpose of this audit is to outline an approach making 5S a success in industrial as well as our working areas.
- Enable 5S teams to design and establish a simple, effective and visual workplace organization, which creates a professional workplace and culture that is effective, organized and disciplined.
- Continual Improvement internal audit program enhance excellent service delivery
- Audit findings can be used to identify trends and the key issues.

Page 49 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020



#### Performing Audit

#### Preparation

- 1. All 5S auditors gather at the meeting room ½ hour before audit
- 2. Briefing by 5S audit chairman :-
  - Activities of the day
  - Highlight any new criteria to be checked
  - Action date on sticker (2 weeks from audit date)
  - Time to report back
- 3. Wearing 5S auditor tag
- 4. Every auditor is only allowed to use up to 3 stickers at each audit to each 5S zone. It is

purposely not put burden to 5S team to make improvement in very drastic manner.

Page 50 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 50 01 77	Author/Copyright	processing Level -2	October 2020	
		P	000000 2020	

5. Previous audit summary report will be distributed to the auditors' team as a reference in order to avoid in consistency auditing.

#### During Audit

- 1. Bring all audit materials e.g. checklist, stickers, file holder & audit summary report
- 2. Get the KPT leader or facilitator to accompany auditor
- 3. Good public Relation
- 4. Check outstanding matter from the previous audit summary report
- 5. Proper issue of stickers & justified
- 6. Propose idea for improvement and justified.
- 7. Close matter when action has been taken. Remove sticker
- 8. Issue new sticker when action is not fully satisfied (old sticker still remain) and also for new

Matter noted

- 9.Take photo as an example in case of the 5S team has shown very creative idea to make the 5S initiative significantly effective, safe work place, cost saving
- 10. Only use maximum 3 stickers of each type for each working area / zone
- .11. Listen to the feedback given by workers
- 12. Provide positive suggestion for improvement if stickers is not appropriate
- 13. Prepare audit report of each working area on the Audit summary
- 14. Document must be signed by auditor & team leader
- 15. Audit to the next area
- 16. You may take 10 15 minutes for one zone.

#### Twelve Focal Points 5S Auditors Should Examine

- Do the Top and Middle managers support 5S program?
- Are people proud of their workplaces?
- Are workplaces clean and organized?
- Are workplaces safe for people to work in?

Page 51 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 51 01 77	Author/Copyright	processing Level -2	October 2020	
	178			1

- Are machines and equipment clean and well maintained?
- Are items easy to retrieve?
- Are machines and tools conveniently located?
- Are inventories stored for FIFO retrieval?
- Are products free from dust?
- Do people clean daily without prompting?
- Are the uniforms worn by people clean and tidy?
- Is a good image of the enterprise reflected in its people?

## **Develop 5S Evaluation Criteria & Guidelines**

## 1. Set up audit checklist criteria according to area of 5S team

ASPECTS	N	AUDITED ASPECT		SCORE SCORE			REMARKS	
ASPECTS	0	AUDITED ASPECT	5	4	3	2	1	KEWIAKK5
FLOOR	1	NO DUST ON THE FLOOR						
	2							
	3							
EQUIPMENTS ARRANGEMENT	4	TIDY AND WELL ARRANGED						
	5							
	6							
EQUIPMENTS AND TOOLS	7	IN GOOD CONDITION AND BEING USED						
	8 8							
	9							

#### Awarding System

• Awarding for 5S promotion results according to evaluation is recommended.

Awards may be:

- For Good performance
- Award for efforts
- Award for good Ideas
- Prize winner

Page 52 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	I
1 age 52 01 77	Author/Copyright	processing Level -2	October 2020	I
	, .			

- Group
- Individual

#### Big Cleaning Day

It is a cleaning that carried out from two to four hours by the organization.

Example: Before national holidays

#### Patrolling System

- Top management Patrol
- Check Up the activities Comprehensively
- Give emphasis on sustaining of the activity
- consider committees feedback
- 5S Committee members and Promotion office Patrol
- Evaluate "5S Check List"
- Record problems on"5S check findings"
- Tack picture of 5S problems
- Mutual patrol
- Check mutually among KPT
- Self patrol
- 5S leader and members check the results of activity by themselves.
- Checklist patrol
- Point out the problems by themselves at site as well as evaluate the results and encourage members to urge KAIZEN.
- Camera patrol
- Visibly highlight the problems and progress of the activity using photographs.

Page 53 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
1 age 55 01 77	Author/Copyright	processing Level -2	October 2020	

Self-Check -2
---------------

Directions: Name......Date......Date......

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

1. What are the common tools and techniques to sustain 3S? (10 points)

Satisfactory rating ≥5 unsatisfactory rating≤5

Page 54 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 420 54 61 77	Author/Copyright	processing Level -2	October 2020

#### 3.1 Inspecting workplace

#### Why are workplace inspections important?

Workplace inspections help prevent incidents, injuries and illnesses. Through a critical examination of the workplace, inspections help to identify and record hazards for corrective action. Health and safety committees can help plan, conduct, report and monitor inspections. Regular workplace inspections are an important part of the overall occupational health and safety program and management system, if present

#### What is the purpose of inspections

Inspections are important as they allow you to:

- listen to the concerns of workers and supervisors
- gain further understanding of jobs and tasks
- identify existing and potential hazards
- determine underlying causes of hazards
- recommend corrective action
- monitor steps taken to eliminate hazards or control the risk (e.g., engineering controls, administrative controls, policies, procedures, personal protective equipment)

#### Workplace Elements

Look at all workplace elements – the people, the environment, the equipment and the process. The environment includes such hazards as noise, vibration, lighting, temperature, and ventilation. Equipment includes materials, tools and apparatus for producing a product or a service. The process involves how the worker interacts with the other elements in a series of tasks or operations

Page 55 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### \* Example of Workplace Inspection Report

Inspection Location: \_\_\_\_\_ Date of Inspection: \_\_\_\_\_

Department/Areas Covered: \_\_\_\_\_ Time of Inspection: \_\_\_\_\_

Observations				For Future Follow-up				
Item and Location	Hazard(s) Observed	Repea Y /	t Item N	Priority A/B/C	Recommended Action	Responsible Person	Action Taken	Date

Copies to: \_\_\_\_\_ Inspected by: \_\_\_\_\_

Page 56 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -3 Written Test
----------------------------

Directions Name......Date......

#### I Say true or false the following questions

1. Workplace inspections help prevent incidents, injuries and illnesses (2point)

#### **II** .Explain the following questions

Write work place elements? (5points)

#### Satisfactory rating≥3.5 unsatisfactory≤3.5

Page 57 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### Cleaning up the workplace

#### 4.1. Cleaning up the workplace

After a long day on the job, you stand back and look at the work accomplished. But, it's not time to leave quite yet. Part of ending the day's work should always be cleaning up the job site. Of course, this is the last thing any of us want to do, but it's essential to your business.

Here are three reasons why keeping the job site clean can improve your business and a few tips to help.

- 1. Productive & Safe Work Environment
- 2. Customer Loyalty & Referrals
- 3. Better Reviews

#### ✤ Job Site Cleaning

Now that we understand the importance of a clean jobs site, how can you put it into practice? Being diligent about keeping a clean and organized job site will help you in the long run.

- Scheduled Cleaning Times
- Lead by Example
- Have A Place for Everything
- Keep Cleaning Supplies Available

Note: At the end of the day or job, the work isn't finished. By taking the time to clean up your work, you can promote safety, increase productivity and impress the customer. Use some of these tips to stay tidy on the job.

Page 58 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -4	Written Test

Directions Name......Date......

Answer all the questions listed below.

#### I Say true or false the following questions

**1.** Productive & Safe Work Environment is the tip of job site cleaning. (2point)

#### II Answer the following question

1. Write the importance of job site cleaning? (5 points)

Satisfactory rating≥3.5 unsatisfactory≤3.5

Page 59 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 37 01 77	Author/Copyright	processing Level -2	October 2020

## Information Sheet-5 Identifying situations and taking actions

#### 5.1 Identifying situations and taking actions

#### • Compliance

Compliance refers to a requirement for an organization to obey the laws, regulations, standards, and policies with regard to how it manages the business, their staff, and customers.

Compliance requires the capture and reporting of data, as organizations must collect and submit vast quantities of data on a regular basis to regulators, with serious consequences for any errors or misleading conclusions. Compliance also frequently requires the detailed review and validation of internal business processes, as well as IT systems used to process data on financial transactions, customers, and other business functions.

Compliance requirements are most onerous in heavily regulated industries such as financial service and healthcare, but all organizations in any sector are now subject to some sort of compliance reporting.

These requirements create many challenges (and costs), such as:

- Data aggregation (pulling information on financials, customer, suppliers, and other entities from disparate systems and a range of formats). Data needs to be scrubbed, organized, and produced in reports, and this work is often conducted manually.
- Duplication. Compliance reporting covers data from risk, finance, customer transactions, and human resources systems, and there is a significant overlap between different sets of regulatory requirements. As a result, there is potential confusion and wasted effort from preparing submissions.
- Conflict with privacy laws. Newer laws and regulations ask data owners to retain extensive records with personal data beyond the time necessary for normal business operations.

#### 5.1.1 The Opportunity to Unlock Value

There is a huge opportunity to harness the power of compliance-related data to improve the quality of decisions and business outcomes. Regulation can be a catalyst for improved data

Page 60 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
	Author/Copyright	processing Level -2	October 2020	

management, analysis, and reporting, offering some remarkable insights. Organizations with a strong data culture and a systematic approach to data management, reporting, and analysis will better understand customer behavior, identify market trends earlier, and compare the performance of business units and teams.

Page 61 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -5	Written Test
---------------	--------------

Directions: Name......Date......Date......

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

#### I Say true or false the following questions

1. Data needs to be scrubbed, organized, and produced in reports, and this work is often conducted manually (2point)

#### II Explain the following question.

1. Define compliance? (5 points)

Satisfactory rating≥ 3.5 unsatisfactory rating≤3.5

Page 62 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### Information Sheet-6 Recommending improvements

#### 6.1 Recommending improvements

\*\*

#### Compliance in the workplace

More often than not, HR professionals prioritize hiring, on boarding and talent management over compliance training. They see these priorities as easier and more effective ways to create healthy, engaging and productive company cultures. But what many HR professionals don't realize is that compliance training programs and strong company culture are inextricably connected.

Compliance programs actually help create better company culture, and they shouldn't be ignored (or left for last). A recent survey by Gartner explored the importance of company culture in compliance initiatives and found that employees in positive company cultures are 90% less likely to observe misconduct. In fact, the survey even discovered that 69% of employees in strong cli/mates displayed more trust in their colleagues. If a company's culture includes compliance, you're more likely to observe a healthier work environment.

So how should companies build this ideal workplace compliance environment? According to that same survey, employers do so by educating employees about ethical behavior, being consistent in their messaging when communicating about ethical behavior and enabling employees to engage with one another about positive ethical behavior. If these steps are taken, team members across the board are more likely to be incentivized to integrate compliance into their everyday workplace.

#### Compliance as a culture

Town & Country wanted to create a compliance program that was more than a series of semi-annual, mandatory and disjointed training sessions. The company built out a more thoughtful compliance program that isn't thought of as a requirement but rather a reinforcement of the company's core values, including service, diversity and stewardship. Their compliance program includes a formal 'values document,' which is shared with all of their employees. The document includes everything from the company's values surrounding diversity and inclusion in the workplace to their promise

Page 63 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 03 01 77	Author/Copyright	processing Level -2	October 2020

of continued employee knowledge and development. By taking this value-driven approach, the Town & Country team created a holistic compliance program with consistent messaging that can grow and respond to every employee's needs.

#### Compliance that is clear and consistent

From the corporate suite to the newly hired cashier, workplace compliance is a responsibility for every employee at Town & Country Markets. Using courses from Cornerstone's Learning Suite, Town & Country presents clear and consistent expectations for every employee. This uniformity has not only resulted in a safer work environment, but it has sparked an increase in employee collaboration and engagement that makes Town & Country Markets a better and smarter place to work

Page 64 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check - 6	tten Test
----------------	-----------

Directions: Name......Date......Date.....

Answer all the question listed below. Examples may be necessary to aid some explanations/answers:

1. What Compliance as a culture? (6 points)

Satisfactory rating≥3 unsatisfactory rating≤3

Page 65 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 420 05 01 77	Author/Copyright	processing Level -2	October 2020

## 7.1 Following checklists and reporting

## Activity Check

•

This Activity Check List is meant for those planning and carrying out Motivation Campaigns at the local level (stakeholders and facilitators). It should help in achieving the overall goal: motivating members of marginalized groups to become involved in vocational training and to engage in income-generating activities. It illustrates the various preparatory steps that might need to be taken or adjusted to particular local contexts. It serves also as a basis for feedback, recommendations and suggestions for the further development and improvement of the Motivation Campaign Package.

The Activity Check List covers three stages:

- planning the Motivation Campaign,
- monitoring the implementation of the Motivation Campaign,
- Evaluating the Motivation Campaign.

While local campaigns might vary in nature, target group and organization, this Activity Check List is a general framework. Please feel free to respond only to those items that apply to your specific situation, and to add issues that you consider important, but that have not been addressed in the Activity Check List. Please feel free to produce as many copies as you need.

5S Audit Checklist and Report

To be successful in implementing 5S (Sort, Set, Shine, Standardize, and sustain), audits must be conducted and four simple rules followed:

- 1. Everything has a place and everything in its place.
- 2. Nothing on the Floor, except Legs, Wheels, or Pallets.
- 3. Clean to Inspect, Inspect to Detect, Detect to Correct, Correct to Perfect.
- 4. When in doubt, throw it out

Page 66 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check -7 Written Test
----------------------------

Directions: Name......Date......Date.....

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

#### I Say true or false the following questions (2point)

**1** The Activity Check List is meant for the planning and carrying out at the local level.

#### II Explain the following questions

1. What is activity checklist? (5points)

Satisfactory rating≥3.5 unsatisfactory rating≤3.5

Page 67 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### 8.1 Avoiding Problem by Implementing Sustain

Here are some of the things that happen in a company when Commitment to the five pillars is not sustained.

- 1. Unneeded items begin piling up as soon as sorting is completed
- 2. No matter how well Set in Order is planned and implemented, tools and jigs do not get returned to their designated place after use.
- 3. No matter how dirty equipment becomes, little or nothing is done to clean it.
- 4. Terms are left protruding into walkways, causing people to trip and get injured.
- 5. Dirty machines start to malfunction and produce defective goods.
- 6. Dark, dirty, disorganized workplaces lower workers' morale.

These 5S related problems and others are likely to occur in any factory or office that lacks a commitment to sustain the five pillar gains over time.

#### 8.1.1 Conflict avoidance

Is a method of reacting to conflict, which attempts to avoid directly confronting the issue at hand. Methods of doing this can include changing the subject, putting off a discussion until later, or simply not bringing up the subject of contention. Conflict prevention can be used as a temporary measure to buy time or as permanent means of disposing of a matter. The latter may be indistinguishable from simple acquiescence to the other party, to the extent that the person avoiding the conflict subordinates their own wishes to the party with whom they have the conflict. However, conflict prevention can also take the form of withdrawing from the relationship. Thus, avoidance scenarios can be either win-lose, lose-lose or possibly even win-win, if terminating the relationship is the best method of solving the problem.

The term "conflict avoidance" is sometimes used to describe conflict prevention.

Page 68 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### 8.1.2 Conflict avoidance in the workplace

In the workplace, managers sometimes avoid directly dealing with conflict among coworkers by simply separating them. In workplaces and other situations where continued contact with a person cannot be severed, workers may eschew confrontation as being too risky or uncomfortable, opting instead to avoid directly dealing with the situation by venting to others or engaging in passive aggressive methods of attack such as gossip. Unresolved conflict in the workplace has been linked to miscommunication resulting from confusion or refusal to cooperate, increased stress, reduced creative collaboration and team problem solving, and distrust.

#### 8.1.3 Conflict avoidance in the workplace

In the workplace, managers sometimes avoid directly dealing with conflict among coworkers by simply separating them. In workplaces and other situations where continued contact with a person cannot be severed, workers may eschew confrontation as being too risky or uncomfortable, opting instead to avoid directly dealing with the situation by venting to others or engaging in passive aggressive methods of attack such as gossip. Unresolved conflict in the workplace has been linked to miscommunication resulting from confusion or refusal to cooperate, increased stress, reduced creative collaboration and team problem solving, and distrust.

Page 69 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Self-Check 8 Written Test
---------------------------

Directions: Name......Date......Date.....

Answer all the questions listed below. Examples may be necessary to aid some explanations/answers:

#### I Say true or false the following questions

2. Conflict prevention can be used as a temporary measure to buy time or as permanent means of disposing of a matter.(2point)

#### II Explain the following question

1 How Problems are avoided by Implementing Sustain? (5points)

Satisfactory rating≥3.5 unsatisfactory rating≤3.5

Page 70 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
	Author/Copyright	processing Level -2	October 2020	l

Operation sheet 1

## Procedure of Sort activity

																			Sor	tA	cti	vîty																	
Basic Plan						lst	mo	nth					<b>2nd month</b> 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 3																										
Activity		18	19	20 2	1 22	23	24	25 28	27	28	29	30	1	2	3 4	5	6	1	8	9	10	11	12	13	14 15	16	17	18	19	20	21 2	2 2	3 24	25	26	27 2	8 29	3	0 31
Determining activity	Plan							T	Γ	Γ				Ι	T	Τ						Τ	Τ	Τ			Γ				Τ	1	T	Γ	Π		Τ	Ĩ	Γ
area	Result																																T						
Preparing	Plan																																Γ						Γ
documentations	Result				T																						Γ				T	I	T		Π		T		Γ
Deciding where to put	Plan									Π														1			T					1	T		Π		T		T
unnecessary things	Result									Π																						I	Τ		Π				Γ
Holding a briefing	Plan																																T						T
session	Result									Π																							Τ						Γ
Dod togging	Plan																															I	T						Γ
Red tagging	Result																																T		Π				Γ
Filling out	Plan																																						
documentations	Result																																						
Quantification	Plan			_	_			_	L					-						_		4	4	4	_						_		4	L					
20010100001	Result			+	-				L	_			4	_	Ŀ	+	-		_	-		4	-	4	-		1				_	4	+			_	-		+
General cleaning	Plan			+	+			-	-				-	-	-	+	-		-	-	_	+	+	+	-	-				_	+	+	+						+
a a a a a a a a a a a a a a a a a a a	Result			_																												4							

Page 71 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Operation sheet 2

## Procedures for Set in order activity

Desiration																							S	eit(	n																				
Basic plan				31								3rd	Im	on	th														4th month																
Activity items		1	2	3	4	5	6	1	8	9	10	11	12	13	14	15	1	11	1	10	20	21	22	23	24	25	28	27	28	29	30	31	1	2	3 4	5	(	1 1	8	8	10	11	12	13	14
Descenies hade	Plan								Γ							Γ																		I	T	Γ	Ι								
Preparing tools	Result							1																										I	T						1				
Determining storage	Plan			Γ																														I		Γ	Ī	T							
and a start of the start of the	Result																																	I											
Determining	Plan																																				Ī								
indication methods	Result																																												
Setting temporary	Plan																																												
signboards	Result		17																																										
Cinchested engration	Plan																																												
Signboard operation	Result																																												

Page 72 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

Operation sheet 3 implementing Shine activity
---

## Procedures for Shine activity:

Deals Dise															Se	ISO	u A	cti	vity	1												
Basic Plan																5th	m	ont	h													
Activity		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Dranaving nasanaary taola	Plan																															
Preparing necessary tools	Result																															
Determining activity area	Plan																															
Determining activity area	Result																															
Designing procedures for the	Plan																															
Seisou Activity	Result																															
Constal plasning	Plan																															
General cleaning	Result																															
	Plan															1																
Working out the problems revealed through the general cleaning	Result																															

Page 73 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
1 age 75 01 77	Author/Copyright	processing Level -2	October 2020

LAP Test	Performance Test
Name	Date:
Time started:	Time finished:

Page 74 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

#### Reference

- 5S for operators (1995)
- Journals/publications/magazines
- Job specifications
- Safety Manual and Guide
- https://www.creativesafetysupply.com/content/education-research/5S/index.html
- 5S: Guidebook Step-by-Step Implementation

#### ACKNOWLEDGEMENT

We wish to extend thanks and appreciation to the many representatives of TVET instructors and respective industry experts who donated their time and expertise to the development of

Page 75 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1	
	Author/Copyright	processing Level -2	October 2020	

this Teaching, Training and Learning Materials (TTLM). We would like also to express our appreciation to the TVET instructors and respective industry experts of Regional TVET bureau TVET College/ Institutes, Federal Technical and Vocational Education and Training Agency (FTVET) who made the development of this Teaching, Training and Learning Materials (TTLM) with required standards and quality possible.

This Teaching, Training and Learning Materials (TTLM) was developed on BISHOFTU

#### OCT2020

Page 76 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020

No	Name	Qualification	Educational	Region	E-mail
			background		
1	Teshale	В	Food	Sidama	teshu44@gmail.com
	Besufikad		science and		
			post-Harvest		
			Technology		
2	Memiru	В	Food	A.A	Lijelshaday@gmail.com
	Michael		Process		
			Engineering		
3	Zerfu	В	Hotel mgmt.	Oromia	nzerfu@gmail.com
	Negash				
4	Meseret	В	Hotel &	Oromia	mimimesi@gmail.com
	Niguse		Tourism mgt		
5	Cheru petros	В	Food	SNNPR	Chupeter143@gmail.com
			technology		
			and process		
			engineering		
6	Zelalem	А	Leadership	Amhara	Tayezelalem22"gmail.com
	Taye		and	TVEDB/coordinator	
			Management		

Page 77 of 77	Federal TVET Agency	TVET program title- confectionary	Version -1
	Author/Copyright	processing Level -2	October 2020