The Tools of Lean - The 5Ss of Workplace Organization

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5S - Workplace Organization

“5S Standards are the foundation that supports all Phases of Lean Enterprises.”

• The system can only be as strong as the foundation it is built on.

• 5S leads to a **CLEAN** and **SAFE** work environment.

• Employees and the company must be **COMMITTED** to initiating and maintaining it.
The five pillars that provide the foundation for 5S methodology are defined by 5 Japanese words that start with ‘S’. We can adopt a loose English translation - Sort, Set in Order, Shine, Standardize and Sustain.

1. Seiri
   Sort (Organization)

2. Seiton
   Set in Order (Orderliness)

3. Seiso
   Shine (Cleanliness)

4. Seketsu
   Standardize (Standard Cleanup)

5. Shitsuke
   Sustain (Discipline)
Do you know a squirrel?
5S - Before
5S - After
Why the 5S’s?
5S – Why?

What are the benefits of Neat and Clean?

• _______________________________________
• _______________________________________
• _______________________________________
• _______________________________________
• _______________________________________
Exercise

List five areas where squirrels live in your organization.

___________________________________

___________________________________

___________________________________

___________________________________

___________________________________
## 5S #1 - SORT

### Definition
- To sort out necessary and unnecessary items.
- To store often used items at the work area, infrequently used items away from the work area and dispose of items that are not needed.

### Why
- Removes waste
- Safer work area
- Gains space
- Easier to visualize the process

### How
- Start in one area, then sort through everything
- Discuss removal of items with all persons involved
- Use decontamination/environmental/safety procedures
- Items that cannot be removed immediately should be red tagged
5S #1 - SORT
What is the Red Tag Tactic?

- This is a vital clearing up technique.
- It provides a non-threatening, structured approach to clearing away the unnecessary clutter in a workspace.

“The use of red tags can be one secret to a company’s survival.”
SORT: The Red Tag Technique

The Red Tag Technique involves the following steps:

1. Establish the rules for distinguishing between what is needed and what is not.

2. Identify needed and unneeded items and attach Red Tags to all potentially unneeded items. Write the specific reason for Red Tagging and sign and date each tag.

3. Remove Red Tag items and temporarily store them in an identified holding area.

4. Sort through the Red Tag items; dispose of those which are truly superfluous. Other items can be eliminated at an agreed interval when it is clear that they have no use. Ensure that all stakeholders agree.

5. Consider ways to improve the workplace so that unnecessary items do not accumulate.
5S #2 - Set In Order

Definition
• To arrange all necessary items.
• To have a designated place for everything.
• A place for everything and everything in its place.

Why
• Visually shows what is required or is out of place.
• More efficient to find items/documents (silhouettes/labels).
• Saves time, not having to search for items.
• Shorter travel distances.

How
Keep things used together - kept together.
Use labels, tape, floor markings, signs, shadow outlines.
Sharable items keep at central location (eliminate excess).
Color-coded Orderliness for Lubrication
Improvement in Parts Layout

Before Improvement

After Improvement
Improvement in Picking up Parts

Before Improvement
- Worktable was too wide
- Parts stand was too far away
- Parts were laid out horizontally, making them hard to see and reach.

After Improvement
- Worktable was made smaller (2/3 width reduction.
- Parts were put within closer reach
- Parts were laid out on a slant, making them easier to see and reach.
Personal Tools
**5s #3 - SHINE**

**Definition**
To keep your area clean on a continuing basis.

**Why**
- A clean workplace is indicative of a quality product and process.
- Dust and dirt cause product contamination & potential health hazards.
- A clean workplace helps to identify abnormal conditions.

**How**
Use a plant layout as a visual to identify individual responsibilities for cleaning - eliminates “no man’s land.”
**5S #4 - STANDARDIZE**

**Definition**
- To maintain the workplace at a level which uncovers and makes problems obvious.
- To constantly improve our plant by continuous assessment & actions.

**Why**
- To build 5-S’s into our everyday process to maintain "neat" and "clean"

**How**
- Build into everyday routines and checklists
- Develop schedules and checklists.
Before Improvement

Gauge readings checked against standards in manual

After Improvement

Gauge readings checked against standards indicated on gauge displays

Eliminating the need to check a manual for Standards - KEEP Standardization Easy.  A VISUAL Solution.
### Four Types of Visual Devices / The Need Leads

<table>
<thead>
<tr>
<th>Type of Visual Defect</th>
<th>Visual Indicator</th>
<th>Visual Signal</th>
<th>Visual Control</th>
<th>Visual Guarantee*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Level</td>
<td>Passive (tells only)</td>
<td>Assertive (grabs our senses by changing)</td>
<td>Aggressive (narrows our response options)</td>
<td>Assured (allows correct response only)</td>
</tr>
<tr>
<td>Impact on Behavior</td>
<td>Influences / Informs / Indicates / Shows / Suggests</td>
<td>Alerts / Warns / Alarms / Signals / Prompts / Announces</td>
<td>Confines / Contains Obstructs / Constrains Regulates / Restricts Restraints / Directs Hinders / Controls / Limits</td>
<td>Compels / Forces / Ensures / Eliminates / Prohibits / Inhibits / Guarantees</td>
</tr>
<tr>
<td>Work Place Examples</td>
<td>Directions / Instructions / Prototypes / Maps / Displays / Self Numbers / Bin Address / Floor Tape / Painted Borders / Bench Markings / ETC....</td>
<td>Andon / Alarms / Lights / Digital Boards / Production Control Boards / ETC.....</td>
<td>Shelf Height / Shelf Width / Bin Size / Container Size / Pallet Size / Weight / Raised Borders or Edges / Aisle Width / ETC.....</td>
<td>Detect Chutes / Sensors / Limit Switches / Guide Pins / Locator Pins / Templates / ETC.....</td>
</tr>
</tbody>
</table>

* Also Known as; mistake-proof, failsafe, poka-yoke devices.
5S #5 - SUSTAIN

**Definition**
- To maintain our discipline, we need to practice and repeat until it becomes a way of life.

**Why**
- To sustain sorting, storage and shining activities every day.

**How**
- Good habits are hard to break.
- Commitment and discipline toward housekeeping is essential in taking the first step in being World Class.
PLAN to Implement 5S

• PART 1 (Sort, Set in Order, Shine)
  > What areas can you 5S?
  > Which area will you start with?
  > Who is responsible?
  > Communicate and Train - When?

• PART 2 (Standardize and Sustain)
  > How?  Who?  When?

You MUST do PART 2 to have a lasting impact.
5S Focusing Tools

• “Red Tag” Technique
• Before & After photographs
• Improve Area by Area, each one totally
• Clear Responsibilities
• Daily Cross-Department Tours
• Schedule ALL Critical Customers to Visit
• Regular Assessments with defined Metrics
Benefits of 5S Implementation

- A cleaner workplace is a safer workplace
- Contributes to how we feel about our product, our process, our company and ourselves
- Provides a Customer Service Showcase to promote our business
- Improved Product Quality with less contaminants
- Efficiency will increase
- Reduces Stress