



**5S**

**An Introduction to  
Workplace Organization**

BUSINESS PERFORMANCE  
IMPROVEMENT

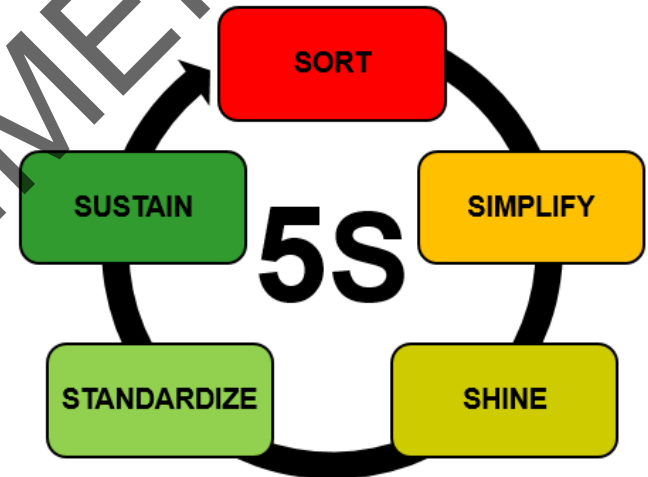


## Course Objectives

- Upon completion of this course, participants should be able to:
  - Know what all the five S's mean
  - Understand the major steps within each stage
  - Learn key benefits and tips for successful 5S implementation
  - See examples of 5S applied to different work areas
  - Practice the 5 steps with an exercise

The purpose of 5S is to provide an organized work environment where everything has a place, is in its place, and is ready for use

1. **S**ort (Seiri)
2. **S**implify (Seiton)
3. **S**hine/Sweep (Seisou)
4. **S**tandardize/Stick (Seiketsu)
5. **S**ustain (Shitsuke)



**5S is more than just “spring cleaning”**



<https://www.youtube.com/watch?v=aMkXICM1-98> (5 mins)

- **Reduce errors**
  - Using outdated files and templates
- **Reduced frustration**
  - Never finding files, not valuable use of time
- **Save Time**
  - Searching for files, re-creating templates and content, reduced training/on-boarding
- **Save Money**
  - Storage space, maintenance costs
- **Makes problems visible**



**What are other benefits you can think of?**

- Origin is rooted in the works of two American pioneers
  - Frederick W. Taylor
  - Henry Ford
- Studied by Japanese managers
- Popularized by Hiroyuki Hirano (1990)



## Excuses why 5S not done

- Too busy for 5S activities, no time allocated
- Why clean it? It will get dirty again
- We cannot change the existing setup
- Afraid to accidentally throw something away
- We are comfortable – why change?
- It will take too long to clean and organize

**What is your excuse for poor organization at home?**

# Case Study: JEA Utilities

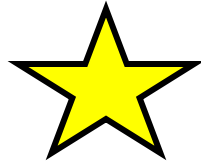
- Launched a project to reduce workplace accidents and reduce time to complete maintenance. Implemented a 5S to organize and standardize the materials on the trucks. Reduced fuel costs by an estimated 10% per truck due to the lighter weight of the trucks.



**BEFORE**

**AFTER**

<https://www.epa.gov/sites/production/files/2016-11/documents/jea.pdf>



**SORT**

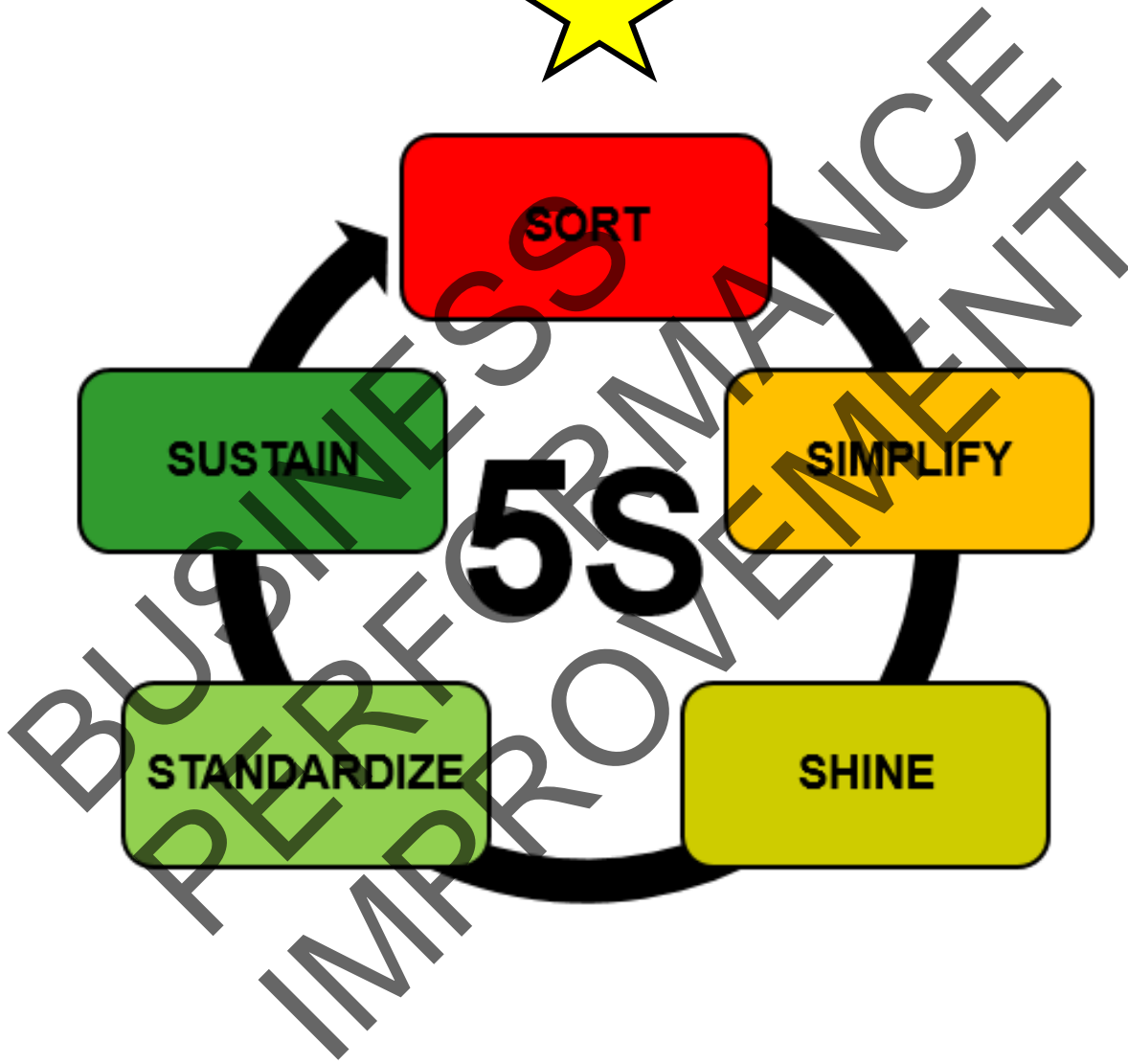
**SUSTAIN**

**SIMPLIFY**

**5S**

**STANDARDIZE**

**SHINE**



- **Distinguishing between necessary and unnecessary things in your immediate work area**
- Getting rid of what you do not need
  - Establish criteria for eliminating unwanted items
- Eliminate unwanted items from the area
- Use cross-functional teams, to challenge whether items being kept are truly “needed”
- Does your organization even own that item?

- Allocate new area for items which are NOT needed
- Remove items not used in area
  - Place unwanted items with 'Red Tag'
- Classify all equipment and materials by frequency of use
- Establish a 'holding area' for items that are difficult to classify

- Items which are identified for removal from area, not longer needed
- Tags should contain:
  - Date when tag attached
  - Date of decision
  - Quantity of material
  - Reason for tagging
  - What you intend to do with it
    - dispose, store close by, store in area, send to main stores, hold for analysis, etc
- Keep a log of red tags to track activity



Purchase red tags at <http://www.5sredtag.com/>



# What is Yellow-Tagging?

- **Yellow-tagging is a simple strategy used to:**
  - Identify environmental wastes and items that may be harmful to human health or the environment in the work area
  - Evaluate the need for these items
  - Evaluate potential alternatives for these items
  - Address them appropriately
- This is a supplement to red-tagging-- key differences include the scope of projects, criteria used, and options for disposal or reuse

Category (Circle one)	1. Health or safety concern 2. Environmental concern		
Item Name and Number			
Description of Issue or Question			
Division Responsible:		Date:	

[http://www.greensuppliers.gov/tech/tools.html?id=lean\\_clean](http://www.greensuppliers.gov/tech/tools.html?id=lean_clean)

## Places to Look for Items

- Along walls, partitions, & columns
- In corners
- On mezzanines
- On top of all flat surfaces
- Under desks & workbenches
- Desk & workbench drawers
- Inside cabinets
- Any stack or pile
- Bulletin boards, schedule boards
- Tool boxes
- Temporary storage space



# What to do with unneeded items?

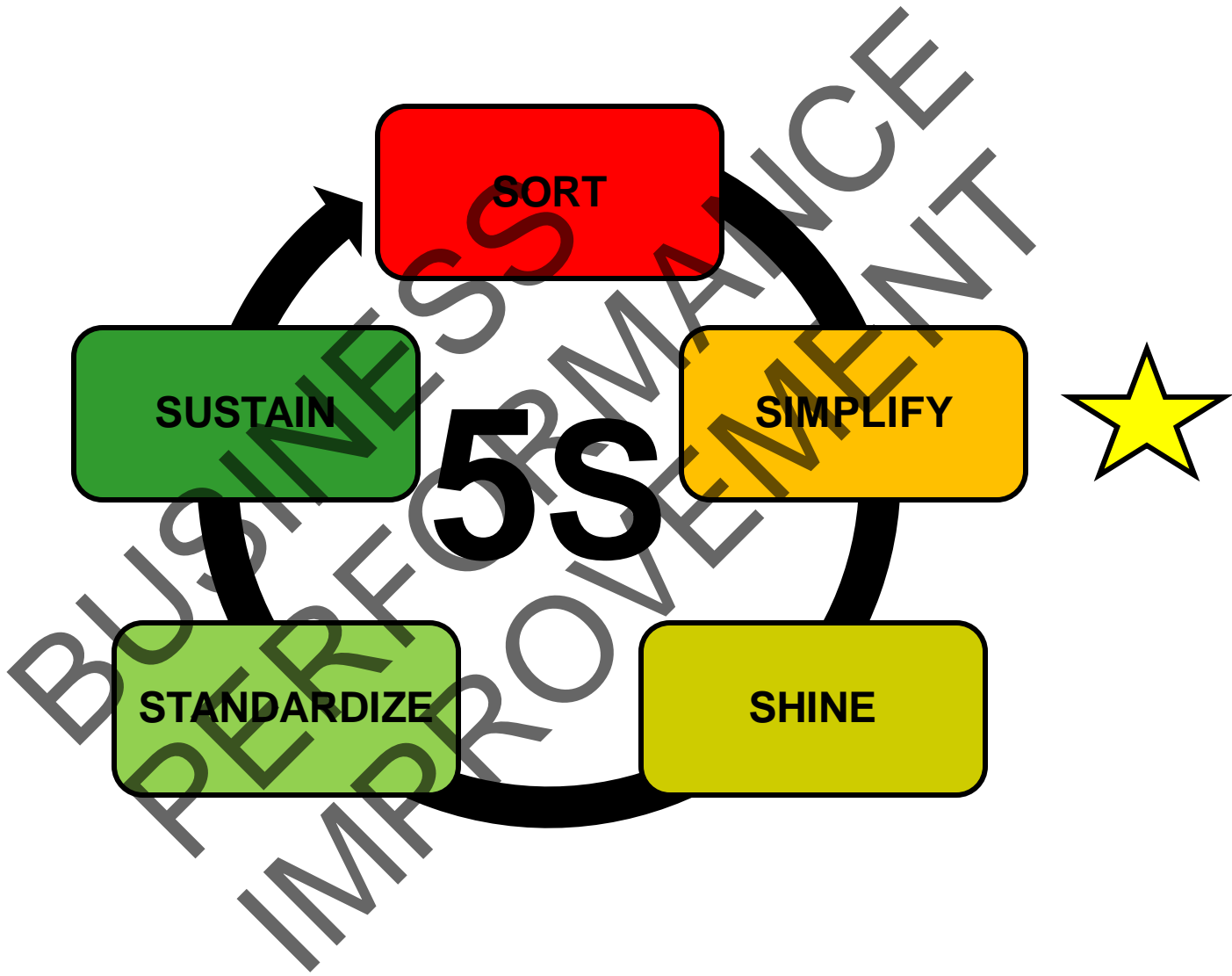
- Sell it used
- Return to supplier for credit
- Reuse or repurpose it
- Give it away (donation)
- Recycle it
- Disposal or throw it away



Need to consider following about remaining items:

- Usage Location: Where will it be used?
- Storage Location: Where will it be placed?
- Storage Quantity: How much will be placed?
- Storage Orientation: How will it be placed?





**SORT**

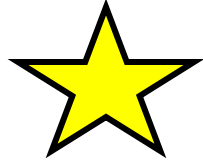
**SUSTAIN**

**SIMPLIFY**

**STANDARDIZE**

**SHINE**

**5S**



- The practice of orderly storage so the right item can be picked efficiently (without waste) at the right time, and easy to access for everyone
  - Identify and allocate a place for all the materials needed for your work
  - Assign fixed places and fixed quantity
  - Make it compact
  - Place heavy objects at a height safe to retrieve
  - Decide how things should be put away, and obey rules

**“A place for everything, and everything in its place”**

Frequency of Use	Placement
Rarely used, couple times per year	Place far away from workplace
Randomly used, once a month	Place in workplace, but out of the way
Used once a week	Place in workplace, visible to worker
Daily use	Within workspace, easy to obtain, identify and put back
Constantly used	Placed within arm's length of worker

Use often → locate nearby, Use infrequently → Store far away



# Simplifying Examples



BEFORE



AFTER

# Simplifying Examples



BEFORE



AFTER



BEFORE



AFTER

BUSINESS PERFORMANCE IMPROVEMENT



# Simplifying Examples

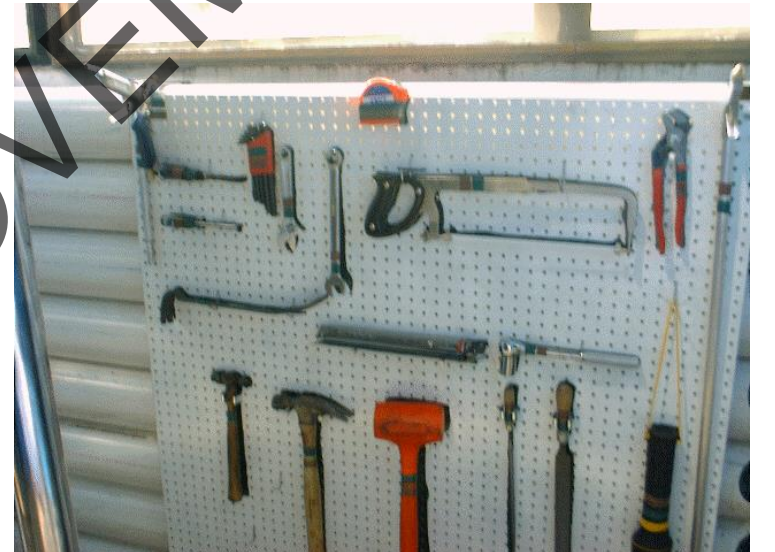


BEFORE

AFTER



# Simplifying Examples





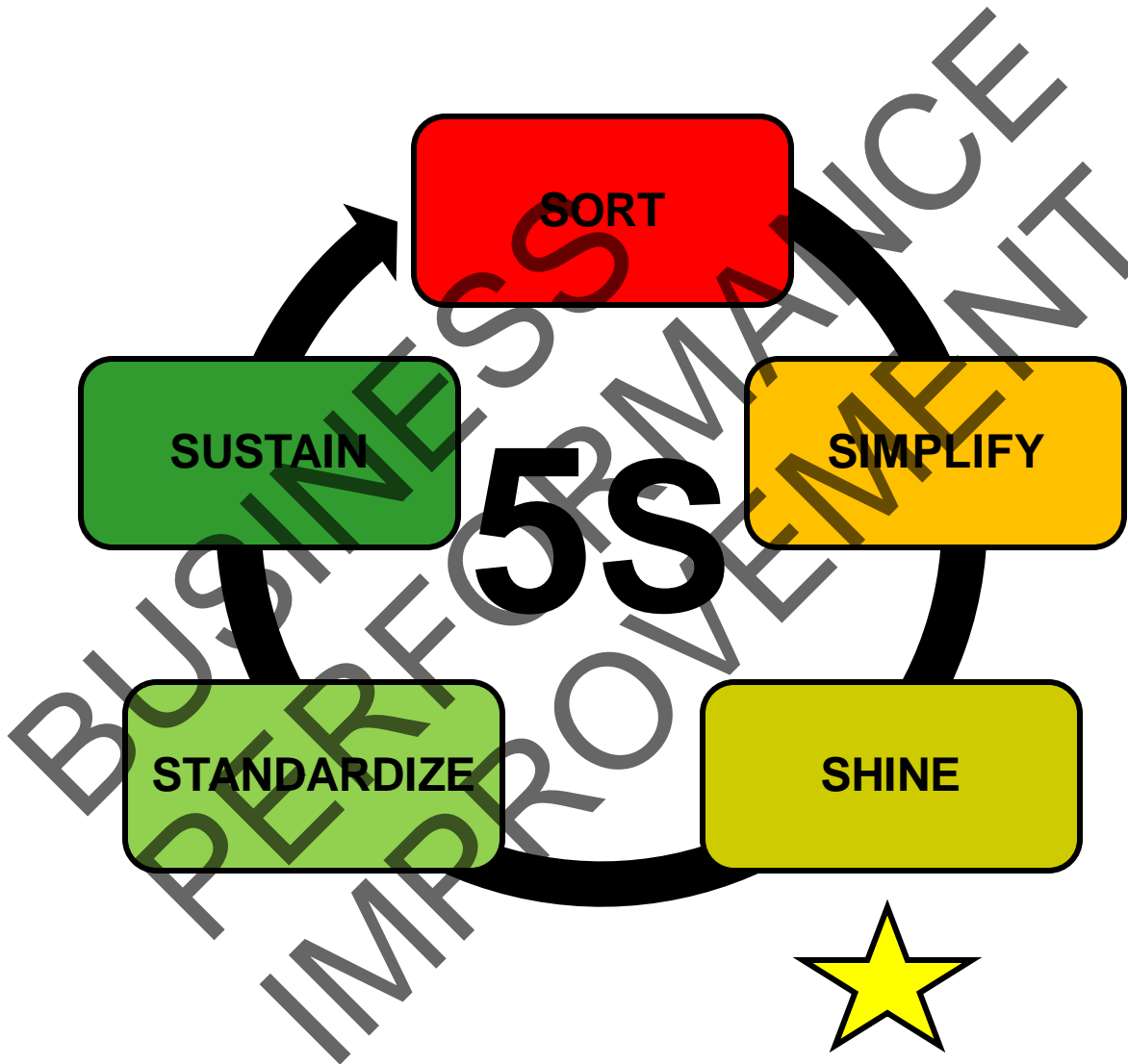
# Storage Options

- **Floor**
- **Racks and Shelving**
- **Flow Racks**
- **Cabinets**
- **Carts**
- **Storage Bins**
- **Portable Equipment**
- **Custom Storage**
- **Central Cribs or Storeroom**
- **Shadow Boards**
- **Hanging Tools**



## Storage “Don’ts”

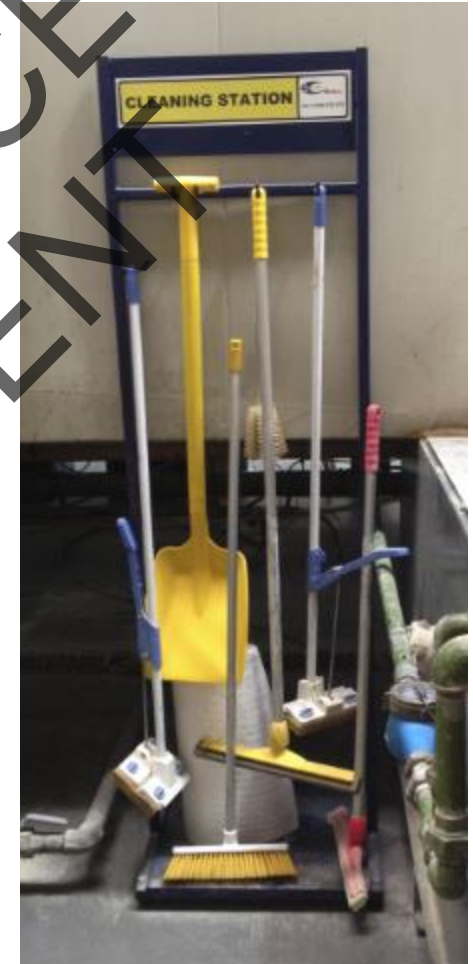
- **Don’t Use Worktables as Storage Tables**
  - Tables are magnets for clutter. Consider removing tables in the work area unless they are needed to perform work.
- **Don’t Allocate Too Much Space**
  - Do not allocate too much space when designating locations
  - Open areas in any operation tend to get filled up with unneeded items
  - Err on the side of using less space unless safety is involved
- **Don’t Waste the Worker’s Time**
  - Minimize distance and effort to get to storage



- Create clean worksite without garbage, dirt & dust
- Only one work activity on a desk at any given time
- Keep tools and equipment ready for use
- Cleanliness should be a daily activity
- Visualize the cleanliness tracking
- Ensure proper lighting – can be hard to see dirt



- Define cleanliness targets
- Define assignments
- Develop methods and allocate time for cleaning
- Identify tools and supplies (cleaning stations)
- Schedule follow-up inspections and audits

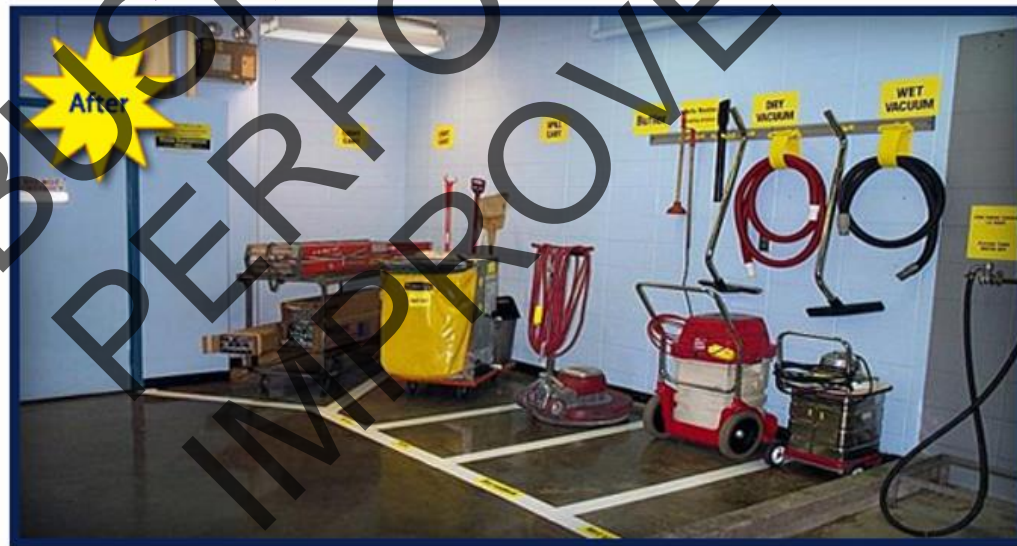


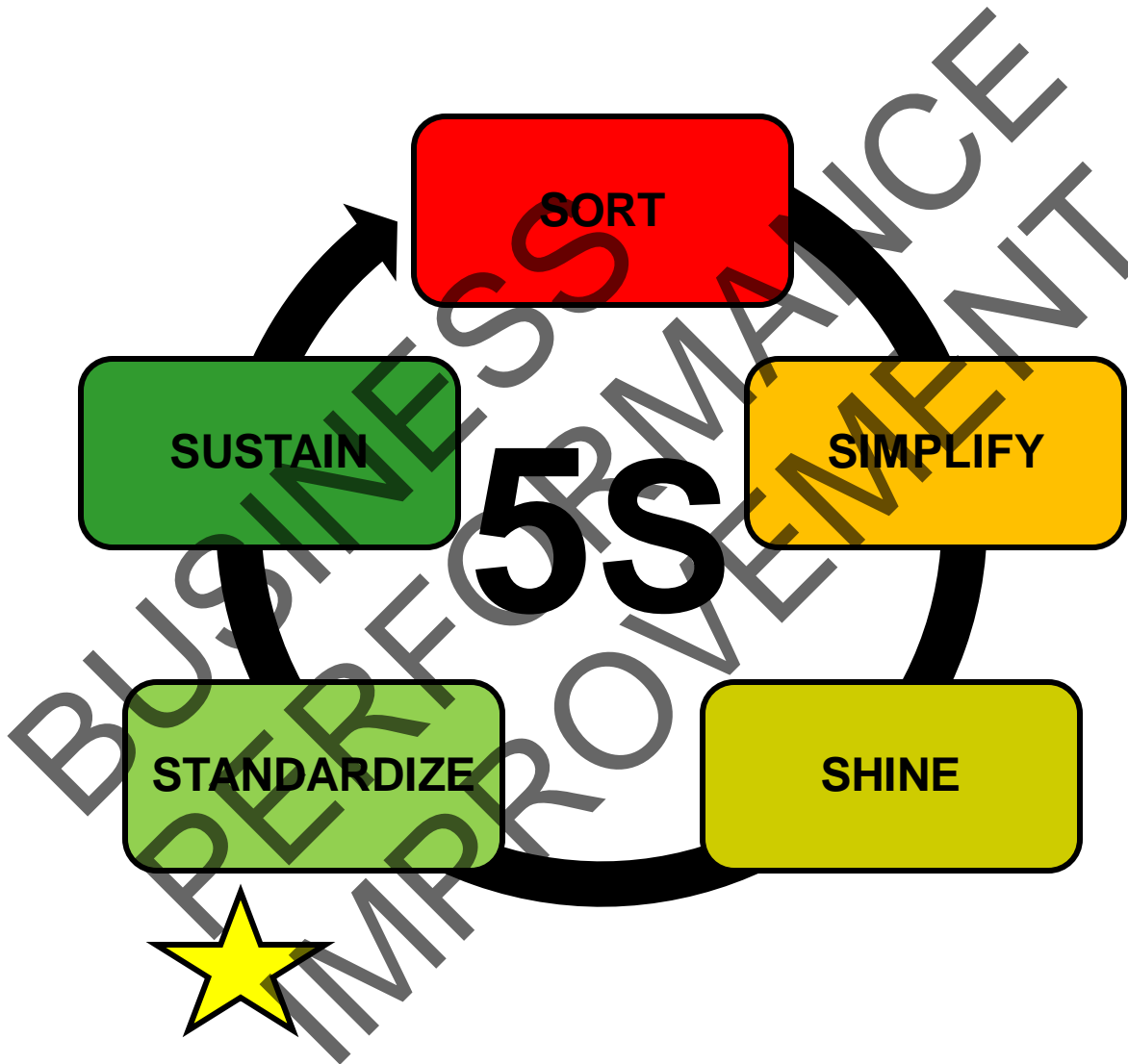


BEFORE



AFTER





**SORT**

**SUSTAIN**

**SIMPLIFY**

**5S**

**STANDARDIZE**

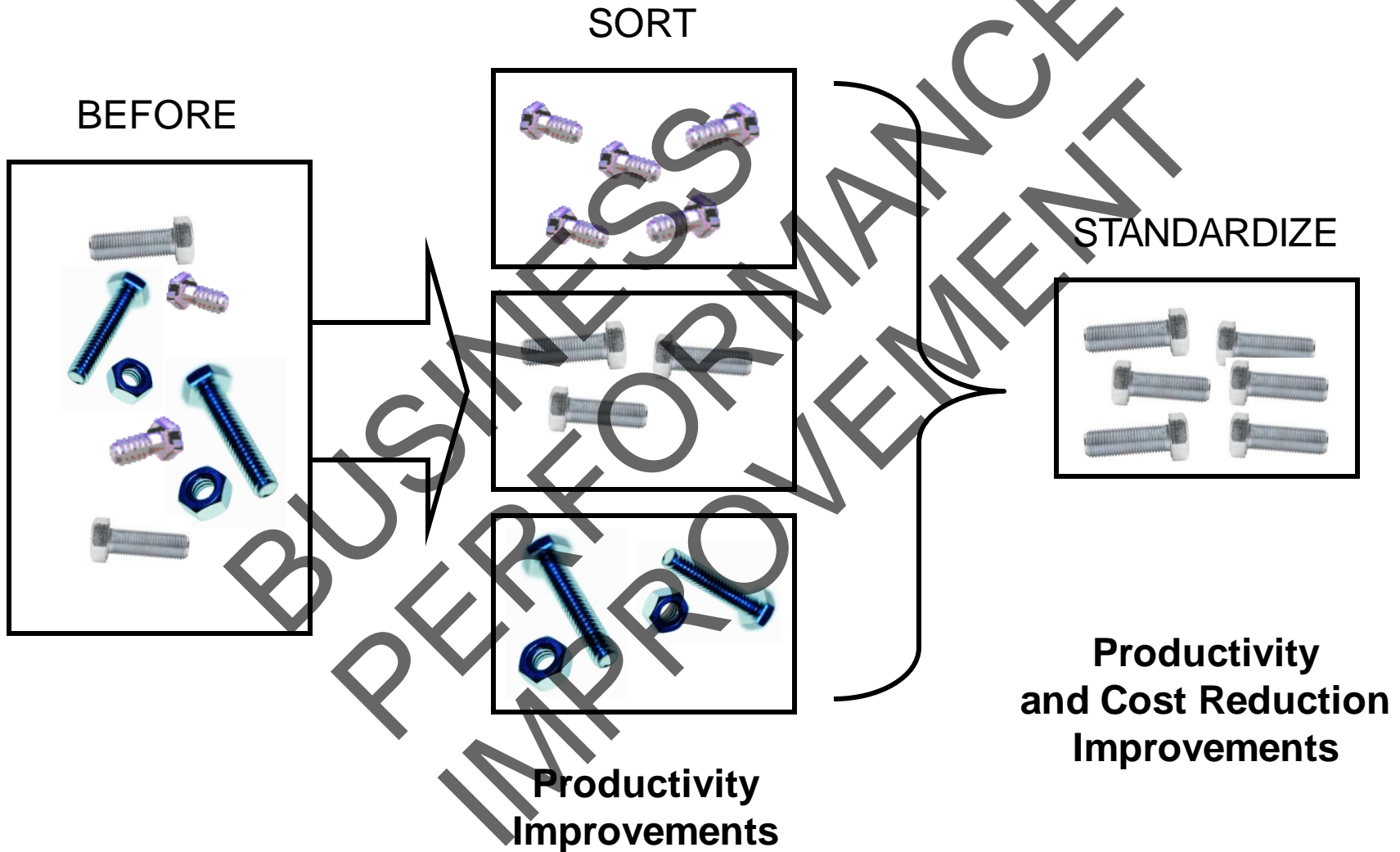
**SHINE**



- Standardization of best practices through “visual management”
  - Make abnormalities visible to management
  - Keep each area as consistent as possible
- Setting up minimum standards (rules) for a neat, clean, workplace
- Create process of how to maintain the standard

Makes it easy to identify normal or abnormal conditions

# Don't Stop at Sorting

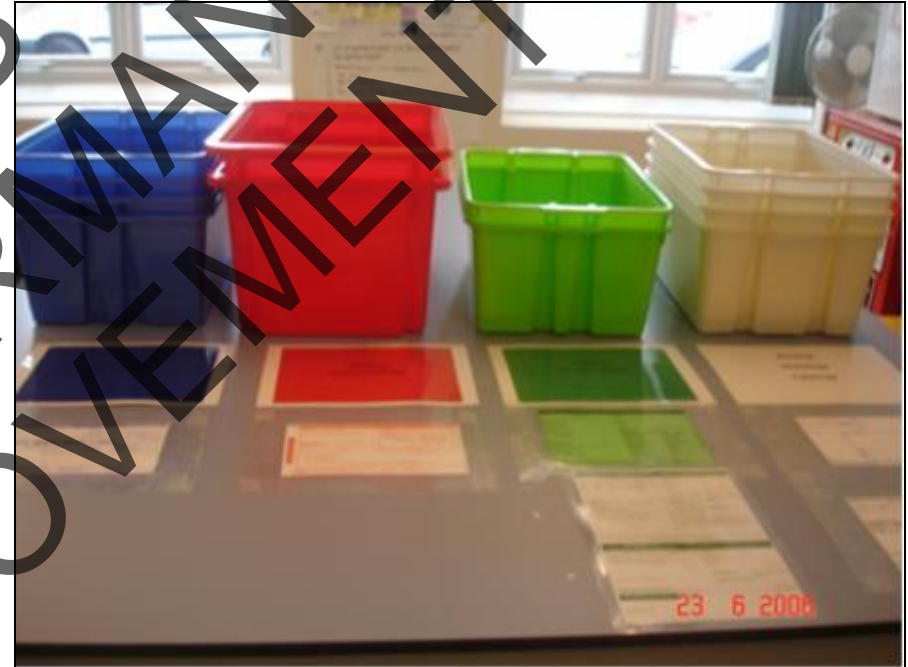


- Use innovative visual management/controls
  - Color coding
  - Work methods
  - Labeling
  - Workplace layouts
  - Filing systems (Centralized where appropriate)



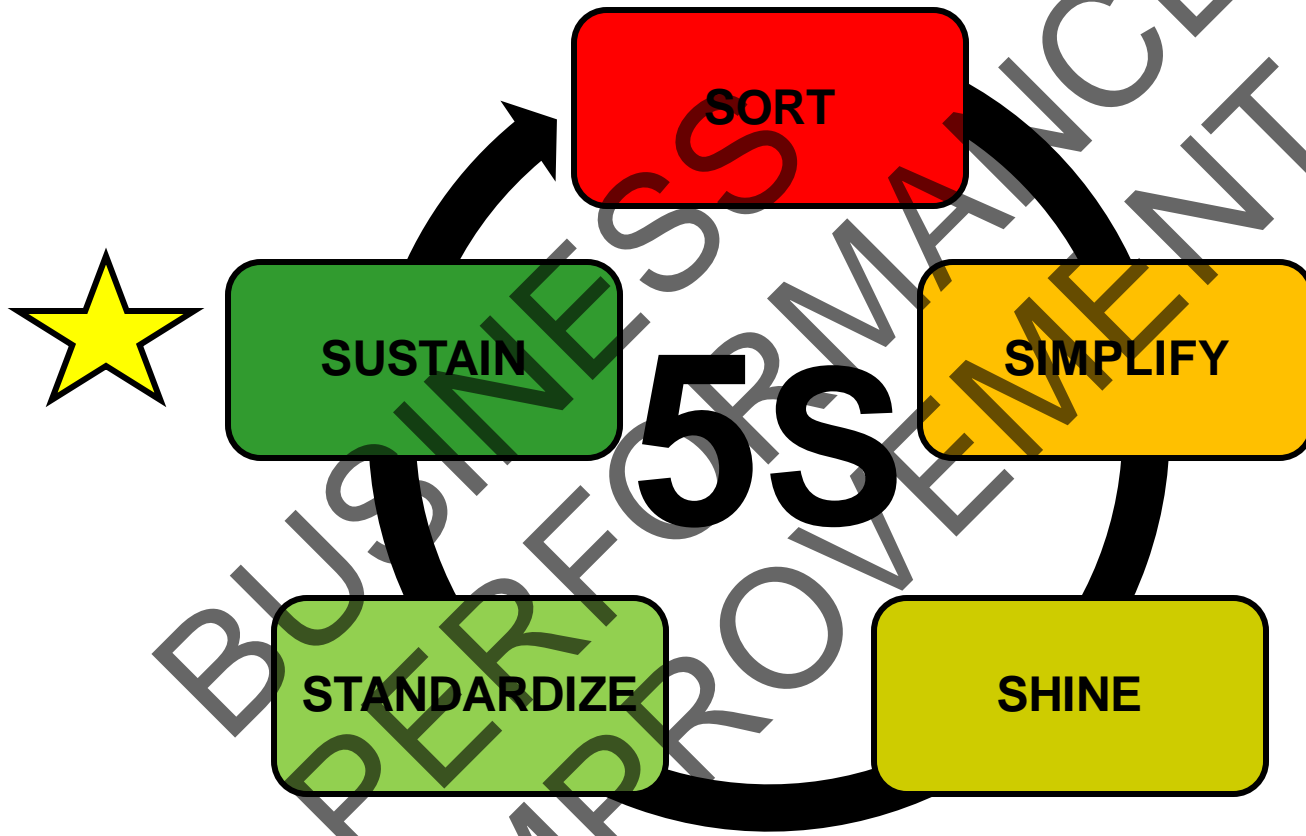


# Standardizing Examples

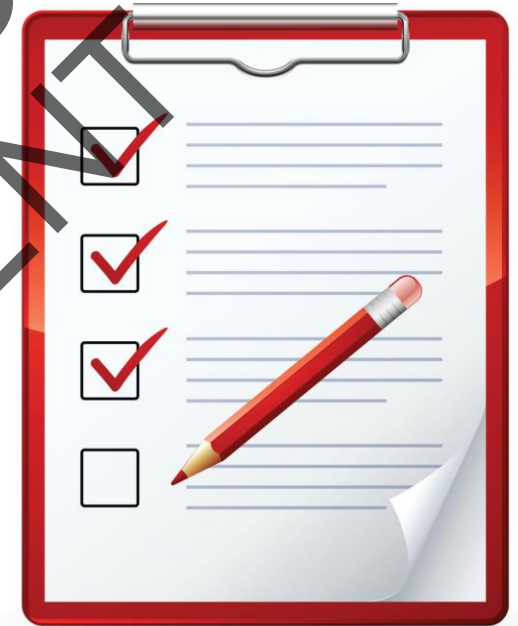


- Recognize status quickly from a distance
- Easy to determine between good and bad
- Convenient for anybody to use
- Anybody can follow and resolve quickly





- Toughest phase is to Sustain!
- Establish and maintain responsibilities, rotate frequently
- Participation of everyone
- Get to root cause of issues
- Post photos on the walls, to provide visual reminders
- Documenting 5S assessments and audits



**What will make 5S sustain at your home or work?**



# 5S Assessment Tool

5S Assessment Tool

Level	Sort	Simplify	Shine	Standardize	Sustain
Beginner Score = 0	Needed and not needed items are mixed throughout the work area <input type="checkbox"/>	Items are placed randomly throughout the workplace. <input type="checkbox"/>	Work area and machines are not cleaned on a regular basis. <input type="checkbox"/>	Methods of work are not consistently followed and are not documented. <input type="checkbox"/>	Work area checks are not performed. There is no visual measure of 5S. <input type="checkbox"/>
Basic Score = 1	Needed / not needed items have been tagged. Removed and disposed of. <input type="checkbox"/>	Needed items stored in an organised manner. <input type="checkbox"/>	Area is cleaned and checked regularly. <input type="checkbox"/>	Needed items are agreed on and documented. <input type="checkbox"/>	5S performance is documented and posted in work area. <input type="checkbox"/>
Visual Score = 2	Initial cleaning completed and a list of needed items developed. <input type="checkbox"/>	Needed items have dedicated positions. Visual controls are in place. <input type="checkbox"/>	Cleaning and audit procedures in place. Responsibilities are assigned. <input checked="" type="checkbox"/>	Listed agreements on visual controls, labelling of items & needed items. <input type="checkbox"/>	Work teams are regularly checking area to maintain 5S. <input checked="" type="checkbox"/>
Reliable Score = 3	Cleaning habits and list of needed items established. <input checked="" type="checkbox"/>	Needed items have been minimized and properly arranged. <input checked="" type="checkbox"/>	Daily inspections of plant and area occurs. <input type="checkbox"/>	All members follow work methods, daily inspection and housekeeping. <input checked="" type="checkbox"/>	Problems are identified and corrective action plans implemented. <input type="checkbox"/>
Preventative Score = 4	Cleanliness problems are identified and mess prevention takes place. <input type="checkbox"/>	Needed items can be retrieved in 30 secs and a minimum number of steps. <input type="checkbox"/>	Potential problems are identified. Sources of dirt, grease & soilage have been eliminated. <input type="checkbox"/>	Methods are established and are being implemented in other work areas. <input type="checkbox"/>	Root causes have been eliminated and improvement focus is on prevention. <input type="checkbox"/>
Score	2	2	1	2	1

Max Score: **20**

Actual Score: **8**

Basic

Site Area: \_\_\_\_\_

Person Performing Assessment: \_\_\_\_\_

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

Free 5S Assessment Tool (Excel) available

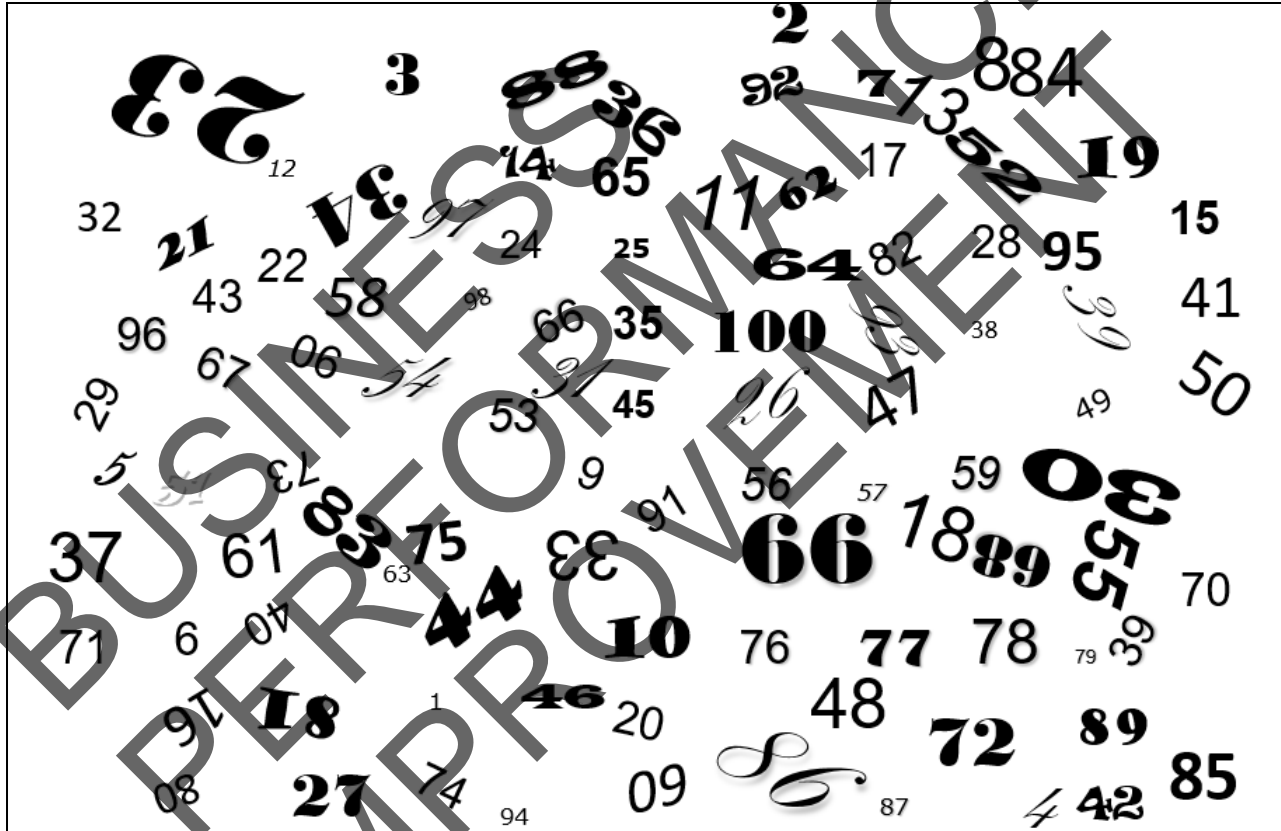
<http://www.biz-pi.com/product/5s-assessment-tool/>



- City of Irving Texas Water Utilities (10 mins)
  - <https://www.youtube.com/watch?v=GtAVsAMqEc0>



# Exercise: Numbers Game





## How to get started

- Choose a pilot department or area to start with
  - Preferably area with best opportunity for improvement
  - Where the payback time is shortest
  - Spend extra time to do it right, so that you have a good example to showcase for the next area
- Conduct 5S training workshops with all employees
- Establish best practices
- Develop a full 5S roll-out plan and communicate
- Continually improve 5S training and methodology
- Reward teams who maintain cleanliness the best



## Additional Resources

**Business Performance Improvement**

<http://www.biz-pi.com>



## Numbers Game

BUSINESS  
PERFORMANCE  
IMPROVEMENT

Round 1 – Find numbers 1 through 50 in sequential order



Round 2 - SORT

25 27 24 12 18 6 20 17

35 44 1 38 29 41 43

33 10 39 36 45 3

7 4 14 37 17 5 46

40 47 32 73 21 31

19 10 39 50 11 26

15 28 9 22 2 50 8 42

48 8

BUSINESS PERFORMANCE  
IMPROVEMENT

Round 3 – SIMPLIFY #1



Round 4 – SIMPLIFY #2

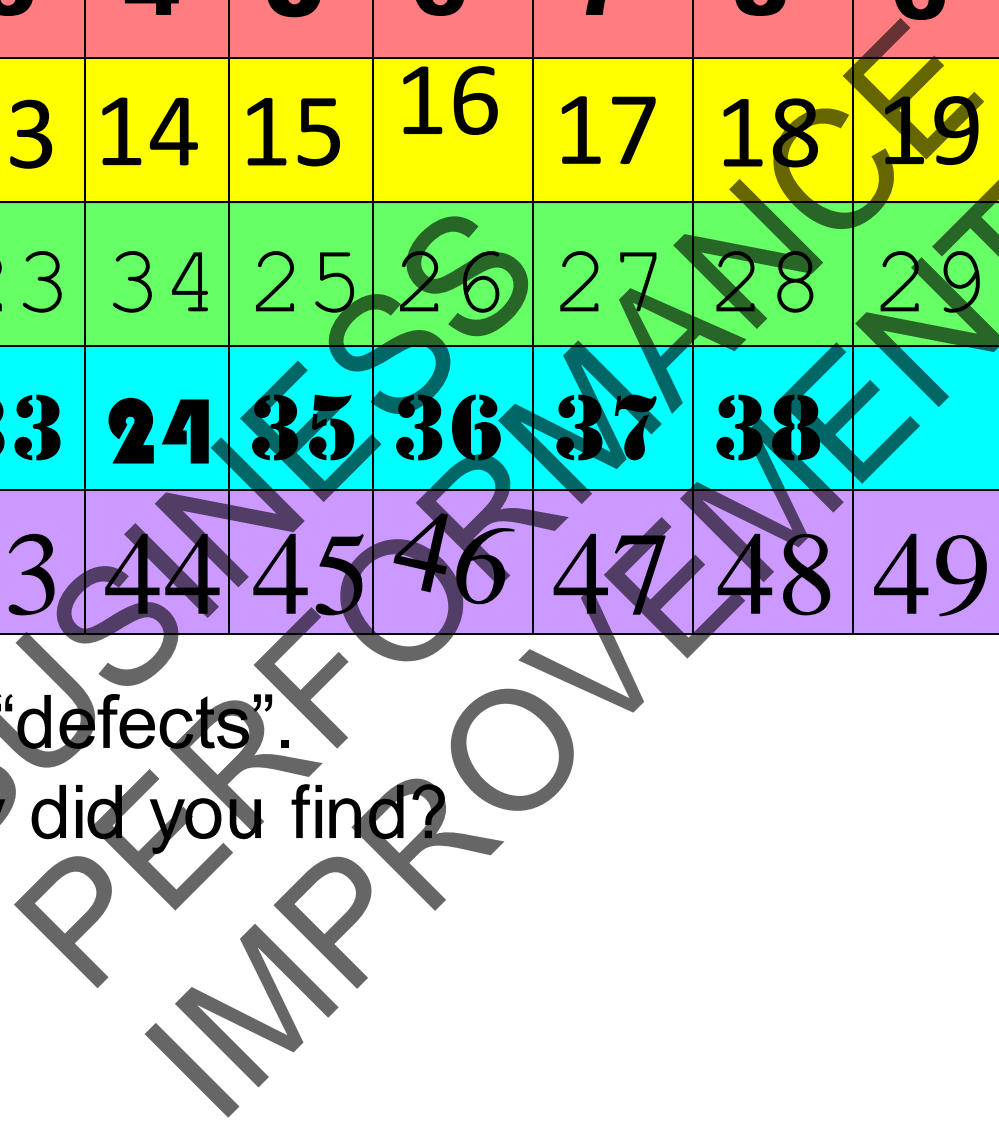
<i>5</i>	<b>2</b>	1	<b>3</b>	<i>4</i>	<b>10</b>	<b>7</b>	9	<b>8</b>	6
15	<i>7</i>	<i>3</i>	12	<b>11</b>	<i>14</i>	<i>9</i>	<i>18</i>	<b>19</b>	17
<i>8</i>	<i>21</i>	25	24	22	<b>27</b>	29	28	<i>26</i>	<b>0</b>
35	<i>31</i>	<b>13</b>	32	<i>33</i>	<b>37</b>	<b>36</b>	38	<i>40</i>	39
<b>42</b>	43	<b>44</b>	41	45	50	48	47	<b>46</b>	49

BUSINESS IMPROVEMENT PROGRAM

Round 5 – SWEEP AND STANDARDIZE

<b>1</b>		<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>10</b>
12	11	13	14	15	16	17	18	19	20
21	22	23	34	25	26	27	28	29	30
<b>31</b>	<b>32</b>	<b>33</b>	<b>24</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>		<b>40</b>
41	42	43	44	45	46	47	48	49	50

Circle the “defects”.  
How many did you find?



Round 5 – SWEEP AND STANDARDIZE (Instructor Only)

<b>1</b>		<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>10</b>
<b>12</b>	<b>11</b>	13	14	15	<b>16</b>	17	18	19	20
21	22	23	<b>34</b>	25	26	27	28	29	30
<b>31</b>	<b>32</b>	<b>33</b>	<b>24</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>		<b>40</b>
41	42	43	44	45	<b>46</b>	47	48	49	50

Circle the “defects”.

How many did you find? **8**