Use 5S Techniques

One of the ways to make it easy to do the right thing is to use 5S techniques.

5S techniques can accomplish the following:

- Make things easy to see and find
- Reduce distraction and “noise”
- Make the process visible

5S is a structured approach to clean and organize the workplace. Many of these techniques simplify the process and make mistakes less likely.

<table>
<thead>
<tr>
<th>Aspect of 5S</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort</td>
<td>Eliminate items not essential to the task</td>
</tr>
<tr>
<td>Set</td>
<td>Physically arrange the essential items so they are easy to find, use, and put away</td>
</tr>
</tbody>
</table>
| Shine | Make sure environment provides only necessary information, no “noise”  
Example: Only one specimen on the bench at a time |
| Standardize | Build in steps to maintain the improvements  
Example: Create a daily schedule for who is responsible for maintaining what room or piece(s) of equipment |
| Sustain | Develop culture and habits to maintain the improvement  
Example: Create an audit system to make sure the environment is maintained |
Making Things Easy to See and Find

Many laboratories use labeling and storing systems that show what should be available and where things should go.

Labeling of tools
Labeling of supplies

Workstation with all supplies in place for glucose meter testing; no need to hunt for them
On left – chart on door of freezer; On right – freezer contents organized according to door chart

Jackie Copeland and Sue Ruediger on standardizing workstations
Reducing Distraction and Noise

Creating a “U” Shaped Work Space

One way to reduce distraction and simplify a task is to rearrange the work space into a “U” shape. When inside the “U,” the technologist focuses on a single process in the same sequence. He or she only goes outside the “U” for help or to make phone calls.

U-shaped work cell diagram
Office Chatter

If office chatter or other noise is a posing a problem, it is important to address it. For example, break times can be coordinated. See Deb Miller’s example below.
Quiet area in a blood bank, allowing concentration

Visibility and Placement of Supplies

Supplies and reagents are a source of error and nonconformity to regulations. Using 5S techniques to make supplies more visible can help.

Eliminating cabinet doors to make supplies visible
A two-tray system for supplies

Joe Rutledge on 5S and placement of supplies
# Standardize the Process

Standardizing the process means doing it the same way each time. This makes the job less complex.

If we do it the same way each time, there is less to mentally process, so steps become more automatic. Practice and repetition develop skill, awareness of risks, and knowledge of how to avoid the risks.

There are several tactics for standardizing the process:

- Test out different methods; choose the most efficient and effective, then document this method in procedures and forms
- Use “kits” – a set of equipment and containers for performing a task, for example, processing and storing a specimen
- Create templates

## Creating Templates

Templates are forms that guide the user in developing a product.

Templates are often used in administrative processes. For example, in budgeting, there may be a template spreadsheet for departmental budgets.

When everyone is accustomed to using the same template, the work goes faster, with fewer errors, and it is easier to locate and interpret results.
Build in Prompts, Color Coding, Warnings, and Feedback

Prompts are instructions or other information built into the task environment that make it more likely the person doing the job will make the right choices. This is a better option than relying solely on human memory.

Some common forms of prompts are:

- Color coding
- Warnings
- Feedback

Color Coding

One simple and powerful kind of prompt is color coding. This provides visual guidance about what goes with what, or what is priority.
Monitor near workstation showing color-coded STAT test in orange, ordered by ED
Another example is color coding reagents by expiration date.

Color-coded hematology controls
Another example is color coding documents by review date. This makes it easy to see whether the document is out of date, and prompts timely revision.

Henry Ford uses a system of document control tags derived from the Department of Motor Vehicles (DMV).

Just as the DMV issues colored stickers based on calendar year so it is easy to see license plates that have not been renewed, the laboratory issues color-coded document control stickers that change color every year, so it is easy to scan the laboratory for posted documents that are out of date and need to be reviewed.
3. Any document that needs to be printed on colored paper refers to grid below. Suggesting to save cost and time on re-printing on colored paper yearly, to print on white paper and change only the colored dot yearly.

<table>
<thead>
<tr>
<th>Year</th>
<th>Color of Paper [Optional]</th>
<th>Control Dot [Provided by QSD]</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>yellow</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>blue</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>green</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>Pink</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>Dark Brown</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>Orange</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>Purple</td>
<td></td>
</tr>
</tbody>
</table>

Chart for yearly color dots

See the document below for the actual procedure describing this system.

[HFHS Document Control Procedure based on Yearly Sticker System](#)
Other Examples of Color Coding

Here are some other examples of color coding.

Instrument with color-matched reagent label and position
Color coding to guide organizing specimens to test and track
Histology cassettes color-coded based on location
Histology cassettes color-coded based on priority
File folders with colors that match cassette and location
Color-coded magnetic board – holds slide labels to affix to pencil-marked slides after staining; keeps them sorted and separated and prevents loss
Color-coded racks