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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.

Aspect of 5S	Definition
Sort	Eliminate items not essential to the task
Set	Physically arrange the essential items so they are easy to find, use, and put away
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



Joe Rutledge on
general 5S
principles

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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

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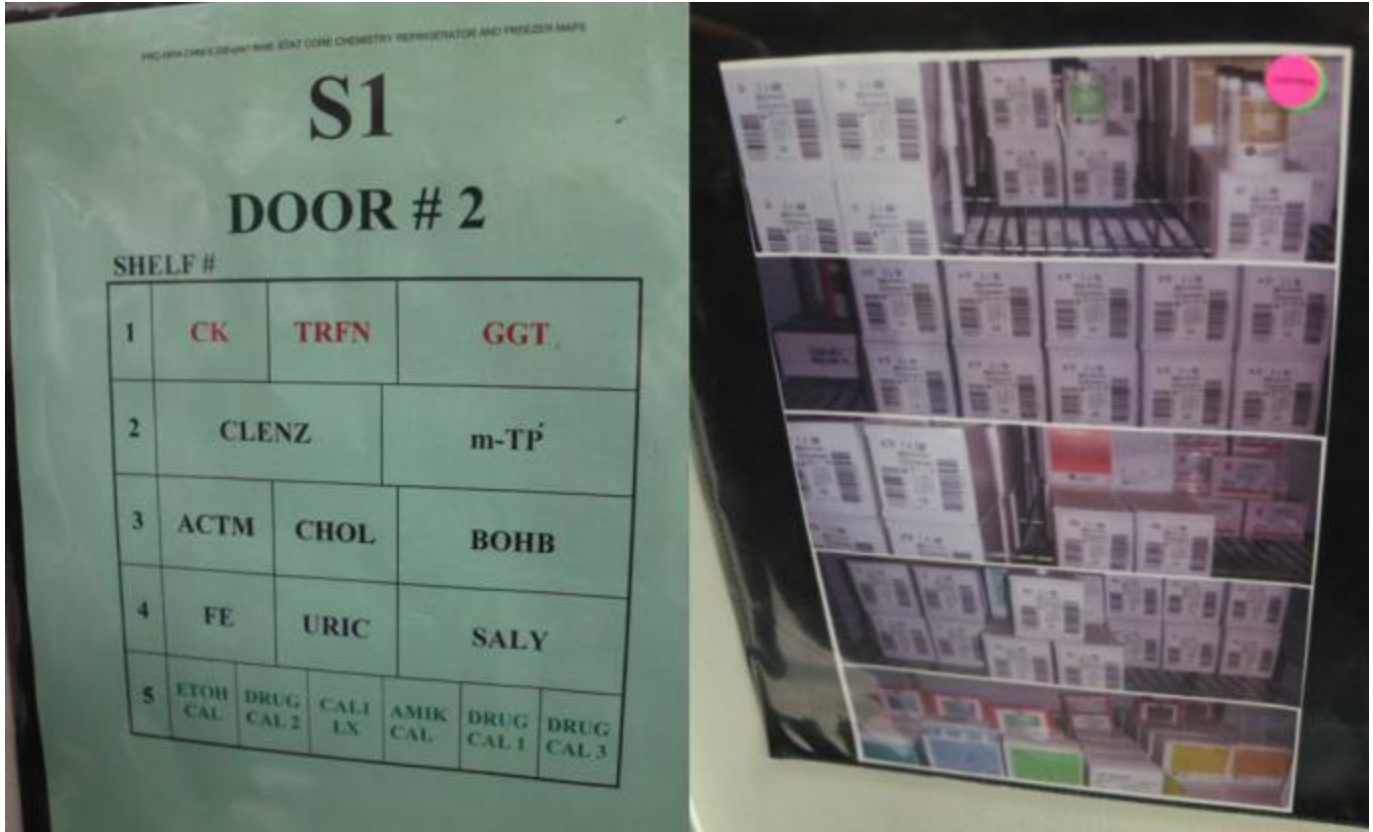


Labeling of supplies



Workstation with all supplies in place for glucose meter testing; no need to hunt for them

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On left – chart on door of freezer; On right – freezer contents organized according to door chart



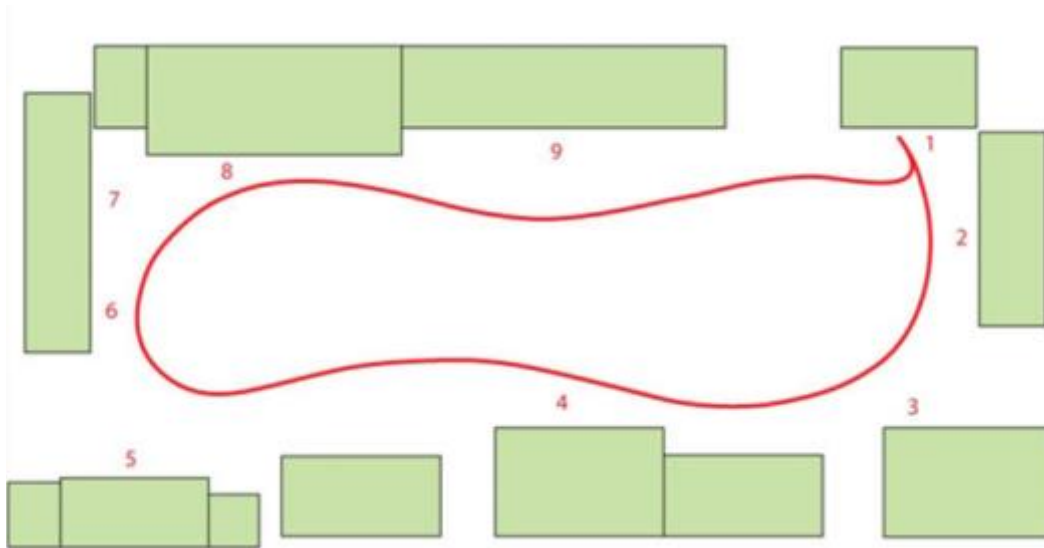
Jackie Copeland and Sue Ruediger on standardizing workstations

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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

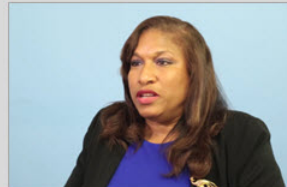
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Work cell

Office Chatter

If office chatter or other noise is posing a problem, it is important to address it. For example, break times can be coordinated. See Deb Miller's example below.



**Deb Miller on
reducing distractions**

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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

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A two-tray system for supplies



Joe Rutledge on 5S
and placement of
supplies

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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.



Ruan Varney on
specimen handoff
from OR

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.

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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

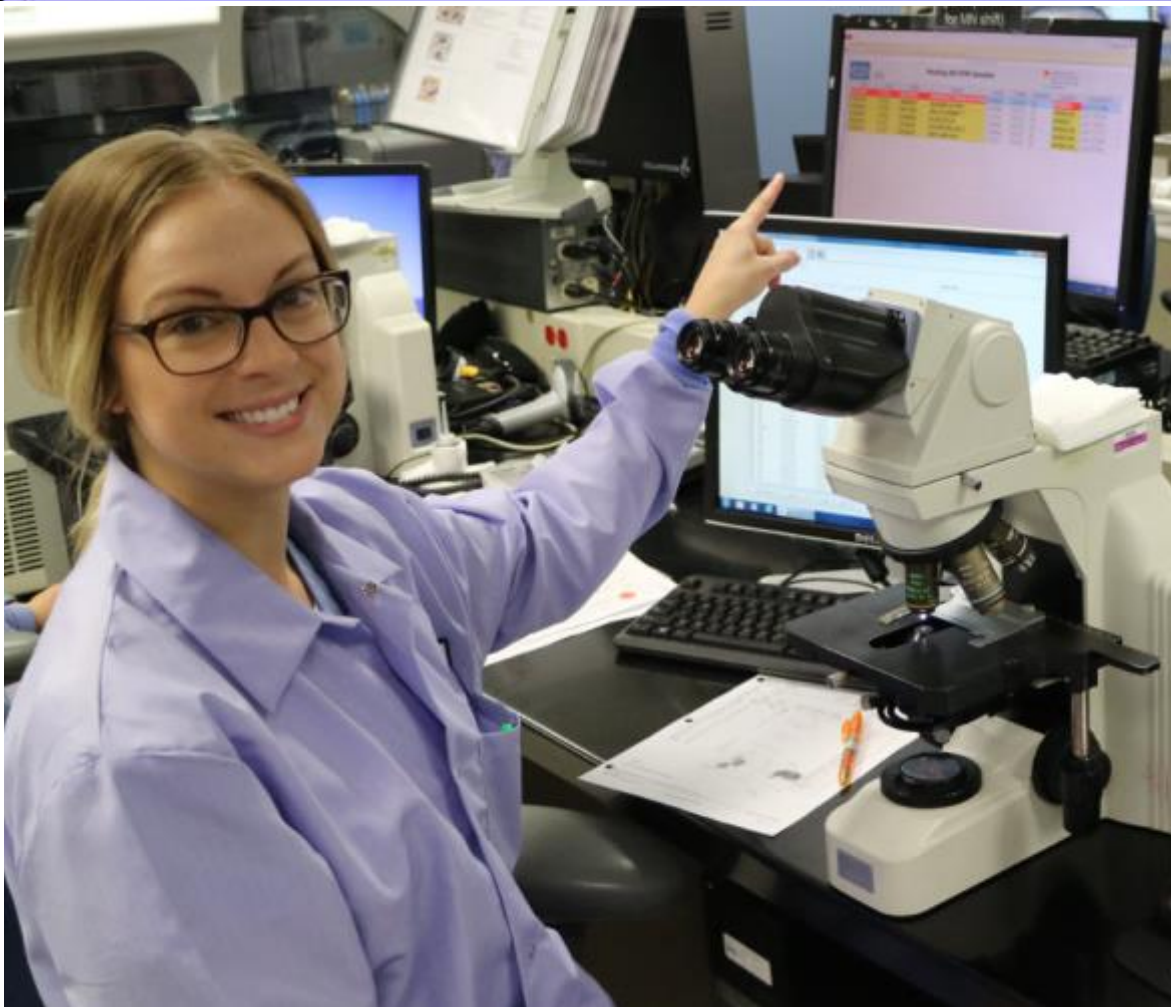
One simple and powerful kind of prompt is color coding. This provides visual guidance about what goes with what, or what is priority.



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for MN shift)

Date	Time	MRN	Name	Acc#	Order	Minutes	Location	ContainerID
5/10/2016	11:36			T509627	CBCDF	47	HFEDC1	L281157298
5/10/2016	11:51			T508906	CBCDF	32	HFEDC2E	L281156320
5/10/2016	11:53			T510352	CBCDF	30	HFEDC1	L281158161
5/10/2016	11:54			T509695	CBCDF	29	HFEDC2W	L281157372
5/10/2016	11:57			T509688	CBCDF	26	HFEDC2W	L281157364
5/10/2016	11:57			T510073	CBCDF	26	HFEDC1PL	L281157855



Monitor near workstation showing color-coded STAT test in orange, ordered by ED

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Gaurav Sharma
and Lisa Whiteley
on molecular slide
trays



Gaurav Sharma on
genetic testing
panel reports

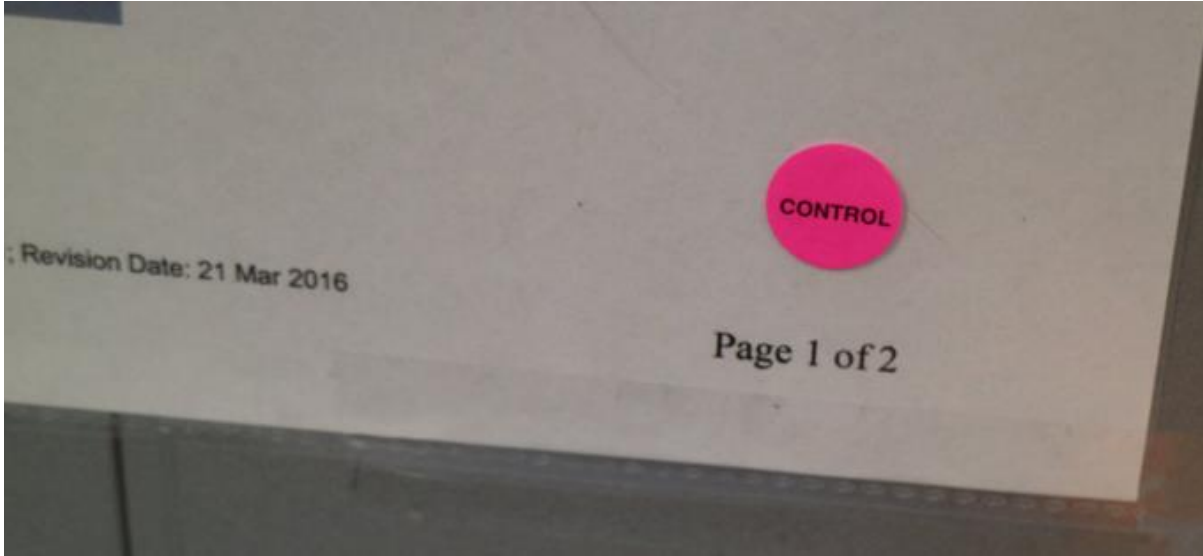
Another example is color coding reagents by expiration date.



Color-coded hematology controls

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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.



Color-coded document control tags, based on year

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.

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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.







Year	Color of Paper [Optional]	Control Dot [Provided by QSD]
2013	yellow	
2014	blue	
2015	green	
2016	Pink	
2017	Dark Brown	
2018	Orange	
2019	Purple	

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](#)

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Other Examples of Color Coding

Here are some other examples of color coding.



Instrument with color-matched reagent label and position

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Color coding to guide organizing specimens to test and track

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Histology cassettes color-coded based on location

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Histology cassettes color-coded based on priority

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File folders with colors that match cassette and location

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Color-coded magnetic board – holds slide labels to affix to pencil-marked slides after staining; keeps them sorted and separated and prevents loss

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Color-coded racks