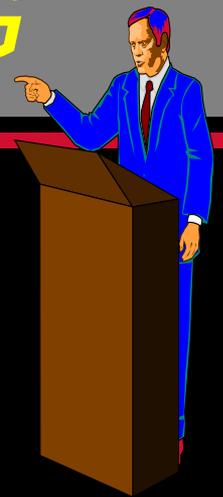


# *SAFE FOOD HANDLING*

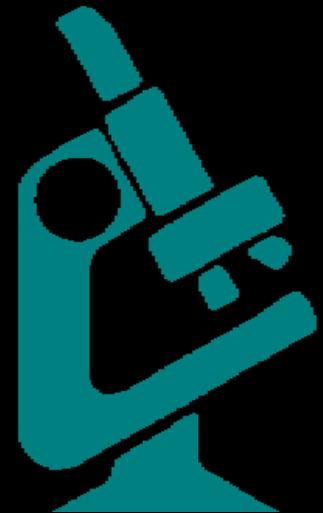


PRESENTED BY  
Christine Scott

**DOUGLAS COUNTY HEALTH DEPARTMENT**

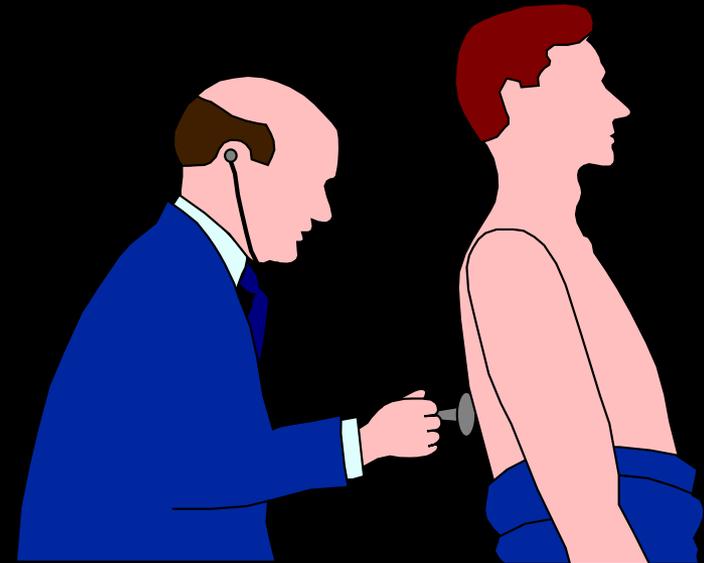
# *Biological Hazards*

- ◆ Disease-causing micro-organisms  
(bacteria and viruses)



# *The Danger In And Around Us*

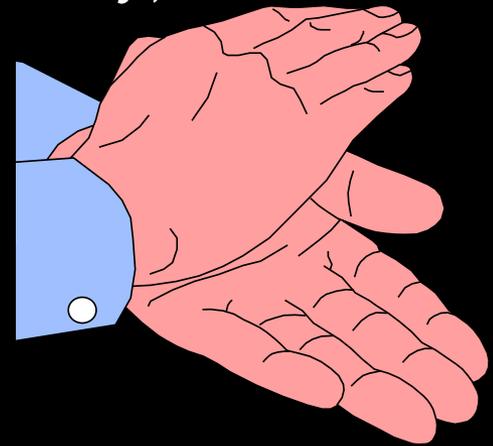
- ❖ *Shigella*
- ❖ *Clostridium perfringens*
- ❖ *Salmonella*
- ❖ *Staphylococci*
- ❖ Hepatitis A



# *Personal Hygiene Standards*

## ◆ Personal Cleanliness

- Hand washing **MUST** follow:
  - ◆ Using restroom
  - ◆ Blowing nose
  - ◆ Handling raw foods (meat & poultry)
  - ◆ Touching body
  - ◆ Touching unclean equipment
  - ◆ Eating, drinking, smoking



# *Personal Hygiene Standards*

## ◆ Prohibited Habits and Actions

☞ smoking



☞ chewing gum

☞ chewing tobacco

☞ eating or tasting food

☞ cross-contaminating food or utensils

# *Personal Hygiene Standards*

## *(con't.)*

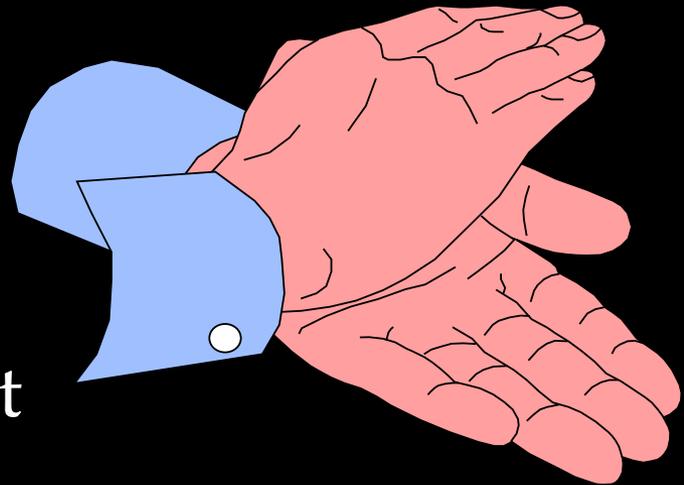
### ◆ Personal Cleanliness

- Hand sanitizers
- Gloves (proper use)
- Fingernails
- Cuts and Abrasions
- Hair Washing
- Bathing



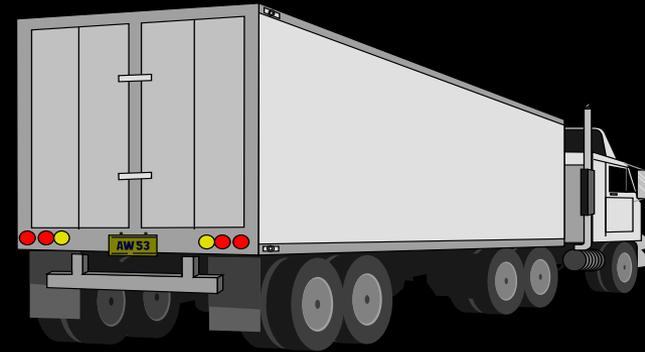
# *PERSONAL HYGIENE STANDARDS*

- ◆ *HANDWASHING:*
- ◆ Warm Water
- ◆ Hand Soap
- ◆ Wet hands, lather for at least 20 seconds
- ◆ Dry with paper towel
- ◆ Use paper towel to turn off faucet

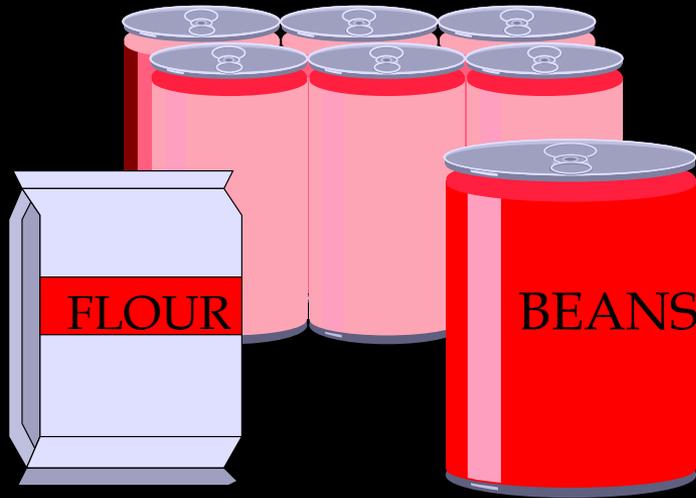


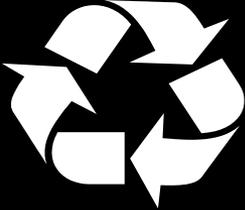
# *Purchasing and Receiving*

- 📄 Use reputable suppliers.
- 📄 Approved source.
- 🖱️ No home goods.
- 📄 Check incoming temperatures.
- 📄 Put away promptly.
- 🖱️ Reject dented, leaking, swollen cans.



# *Food Storage*



- ◆ Store all food up, at least 6" off the floor
- ◆ Cover and label all food.
- ◆ Use FIFO - First In, First Out. 
- ◆ Raw meats below Ready-to-Eat items.

# *Food borne Hazards:*

- ◆ Physical (glass, metal, hair)
- ◆ Chemical (poisons)
- ◆ Biological (bacteria, viruses)



## *Bacteria in food*

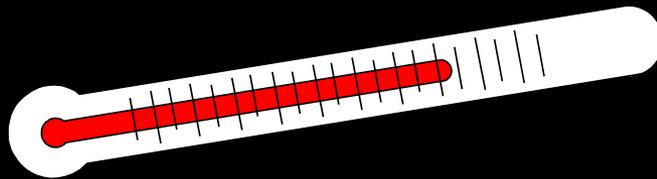
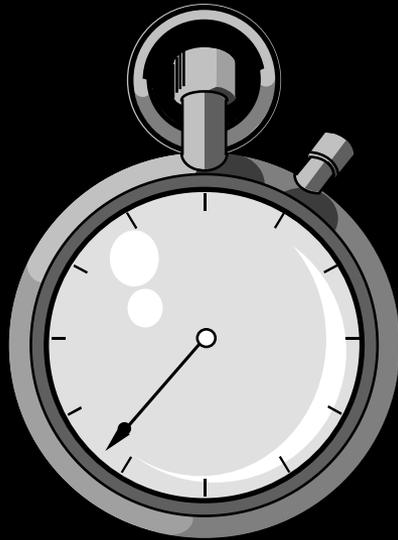
- ◆ microscopic
- ◆ cannot detect by taste, smell, or sight
- ◆ laboratory testing is only way to detect
- ◆ some produce toxins (waste products not destroyed by heat)
- ◆ prevention is most important deterrent

# *Bacterial Growth Requirements*

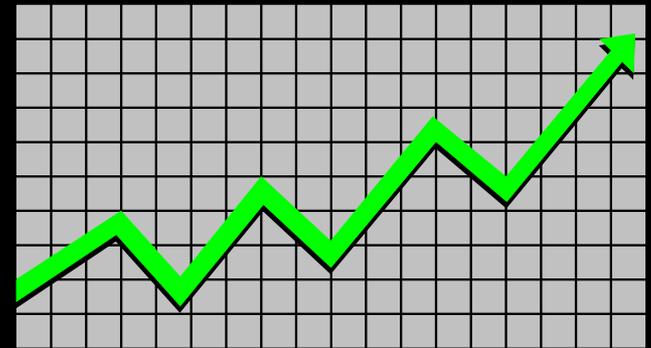
- ◆ Food (PHFs)
- ◆ Acidity (pH above 4.6)
- ◆ Time 4hrs max. (doubles every 10-30min.)
- ◆ Temperature (41°-135°F)
- ◆ Oxygen
- ◆ Moisture

# *Bacteria need....*

Time and temperature  
to grow



=



# *Bacterial growth every 20 minutes (at room temperature)*



0 min.	1,000	bacteria
20 min.	2,000	
40min.	4,000	
1hr.	8,000	
80min.	16,000	
100min.	32,000	
2hr.	64,000	
140min.	128,000	
160min.	256,000	
3hr.	512,000	
3hr. 20min.	<b>1,024,000</b>	( 1M, 24K)

# Potentially Hazardous Foods

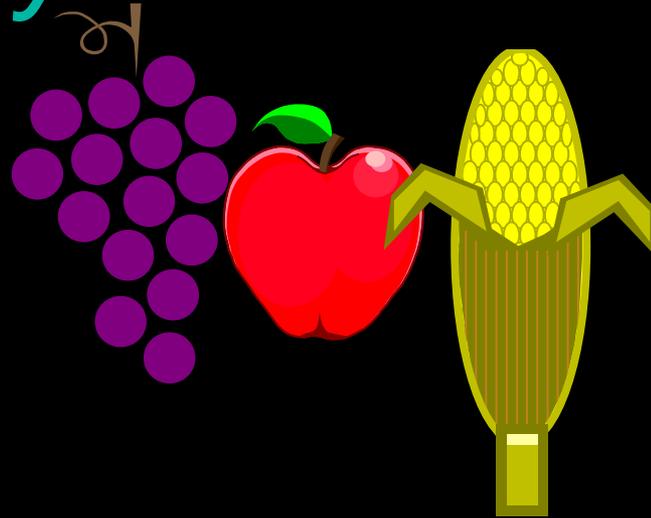
*(Bacteria grow well in these foods)*

- ◆ Dairy products, eggs
- ◆ Meats, seafood, poultry
- ◆ Cream fillings
- ◆ Sauces, gravies
- ◆ Cooked pasta, rice, and beans
- ◆ Cooked potatoes, cooked vegetables
- ◆ Cut melons
- ◆ Sprouts

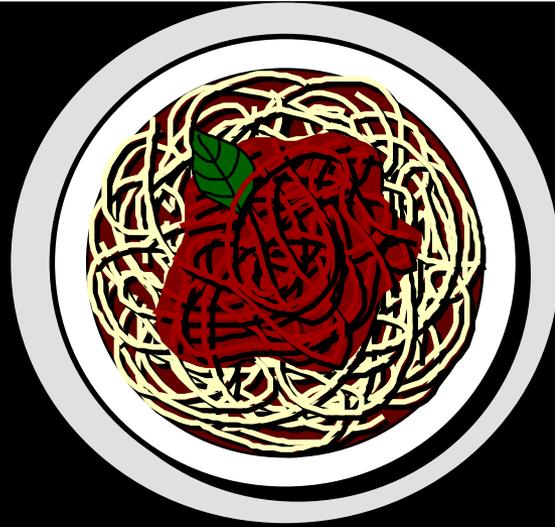


# *Non-Potentially Hazardous Food*

- ◆ Fresh fruits
- ◆ Raw vegetables
- ◆ Cooked bacon
- ◆ Acidic foods (sauerkraut), vinegar-based items (cole slaw).
- ◆ Dry foods (beans, rice, bread, etc.)



# *Preparation*



- ◆ Batch prepare
- ◆ Foods can be in Danger Zone only 4 hrs.
- ◆ Use a thermometer to check food often.
- ☞ Avoid cross-contamination.

# COOK FOODS TO PROPER INTERNAL TEMPERATURES

- ◆ 165°F Poultry, Stuffed Meats, Reheats
- ◆ 155°F Ground Beef
- ◆ 145°F Pork
- ◆ 145°F All Other PHFs
- ◆ 130°F Rare roast Beef

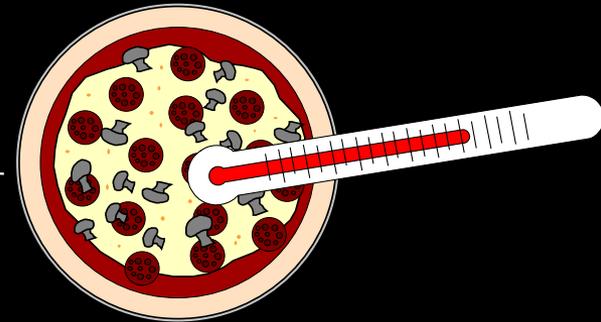


# *Hot Holding*

- ☞ Keep hot items at **135°F** or above during serving and holding
- ☞ Stir and cover hot foods
- ☞ If temp drops below 135°F, reheat to 165°F

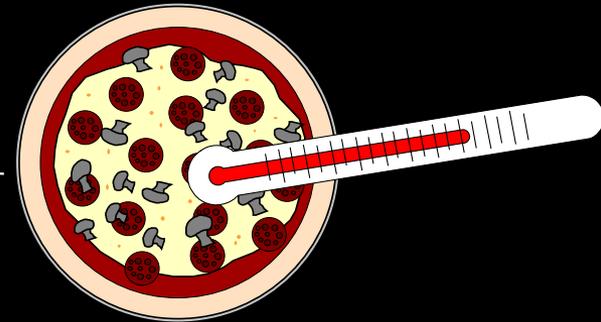
# *Hot Holding*

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- Check temperatures often



# Hot Holding

- Keep hot items at **135°F** or above during serving and holding
- Stir and cover
- If temp drops below 135°F, reheat to 165°F
- Check temperatures often
- Remember.....**



# *Keep Hot Foods Hot*

- 135 °F HOLD ready-to-eat foods hot



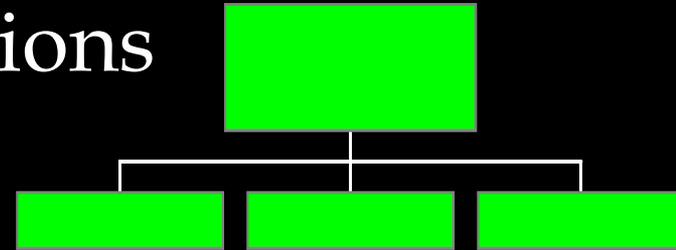
# *Keep Cold Foods Cold*

- ✉ 41°F or colder
- ✉ Prechill protein salad ingredients (hard boiled eggs, potatoes, tuna, etc.)
- ✉ Ice to product level at salad bars



# Cooling Methods

- ☞ Break into smaller portions for fast cooling
- ☞ 3-4" chunks for meat
- ☞ 2-3" for liquids in shallow pans
- ☞ NO LARGE PANS OR STOCK POTS!
- ☞ Cover loosely until cool
- ☞ Use an ice bath



# *Cooling Cooked Foods*

- ◆ Cooling regulation:

Cool between 135°F and 70°F within 2 hours -

Cool between 70°F and 41°F within 4 hours

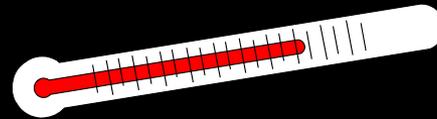
TOTAL: 6 hours or less !

# *Reheating foods*

- ◆ Reheat foods rapidly (within 2 hrs.)
- ◆ Reheat to **165°F**
- ◆ Reheat only once, or not at all.

# *Reheating foods*

- ◆ Reheat foods rapidly (within 2 hrs.)
- ◆ Reheat only once, or not at all.
- ◆ Reheat to **165°F**
- ◆ Use a thermometer



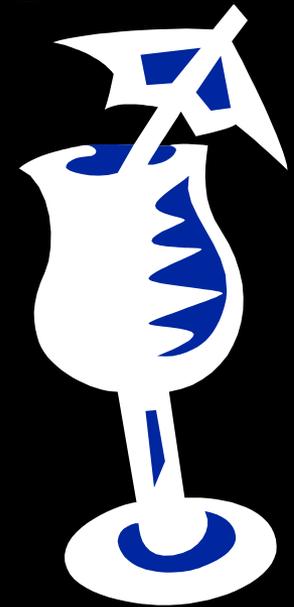
# *Thawing Frozen Foods*

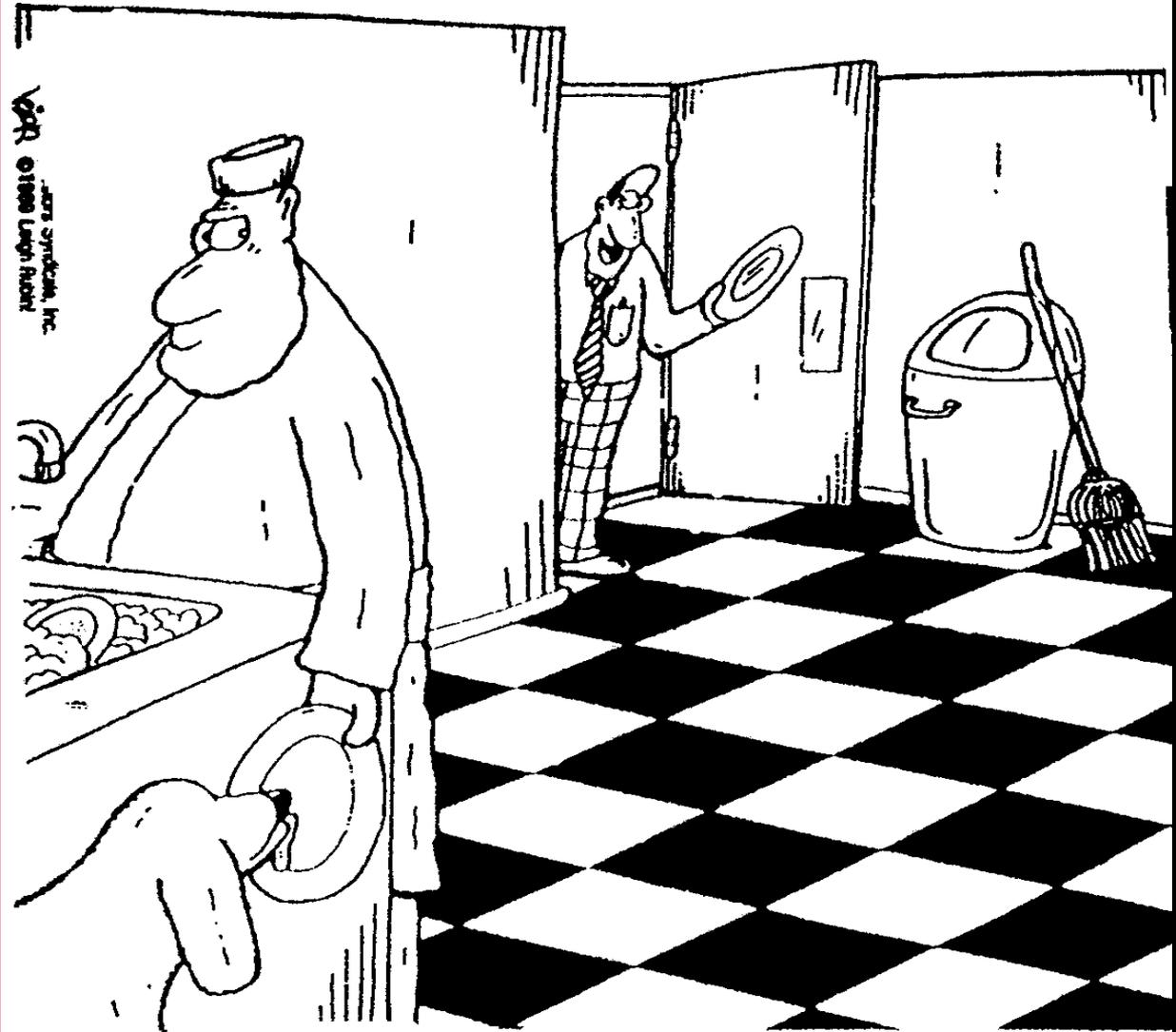
- ¶ Under refrigeration ( 41°F or less)
- 🕒 Under cold running water
- 🕒 In Microwave (just before cooking)
- 🕒 As part of cooking process

⚠️ NEVER AT ROOM TEMPERATURE!

# *Ice Is Food Too!*

- ◆ Treat ice like you would treat food.
- ◆ Dispense only with tongs, scoops, or other suitable equipment.
- ☞ Don't use a glass as a scoop.





**The County Health Inspector's here for lunch. Make sure he gets a clean plate!**

# *Clean and Sanitize Utensils and Equipment Properly:*

- ◆ After each use.
- ◆ After any interruption of service during which they become contaminated.
- ◆ At regularly scheduled intervals if they are in constant use.

# *Manual Cleaning and Sanitizing*

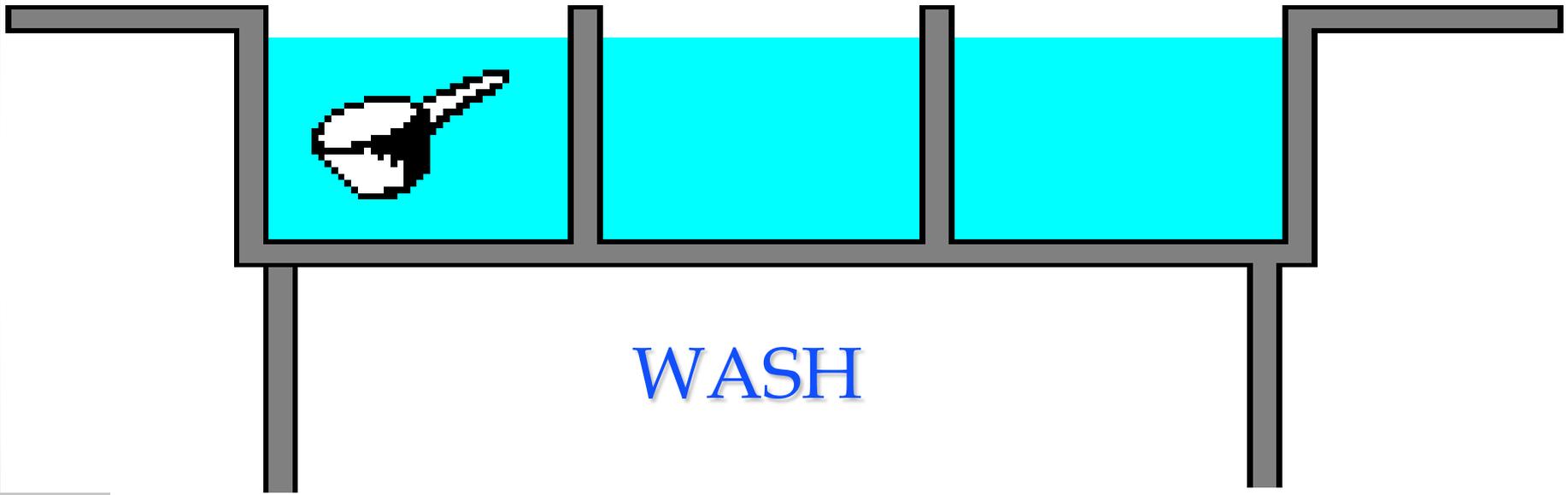
Washing, rinsing, and sanitizing of equipment, utensils, and food contact surfaces can be done manually:

- in a 3 compartment sink
- or clean-in-place (CIP)

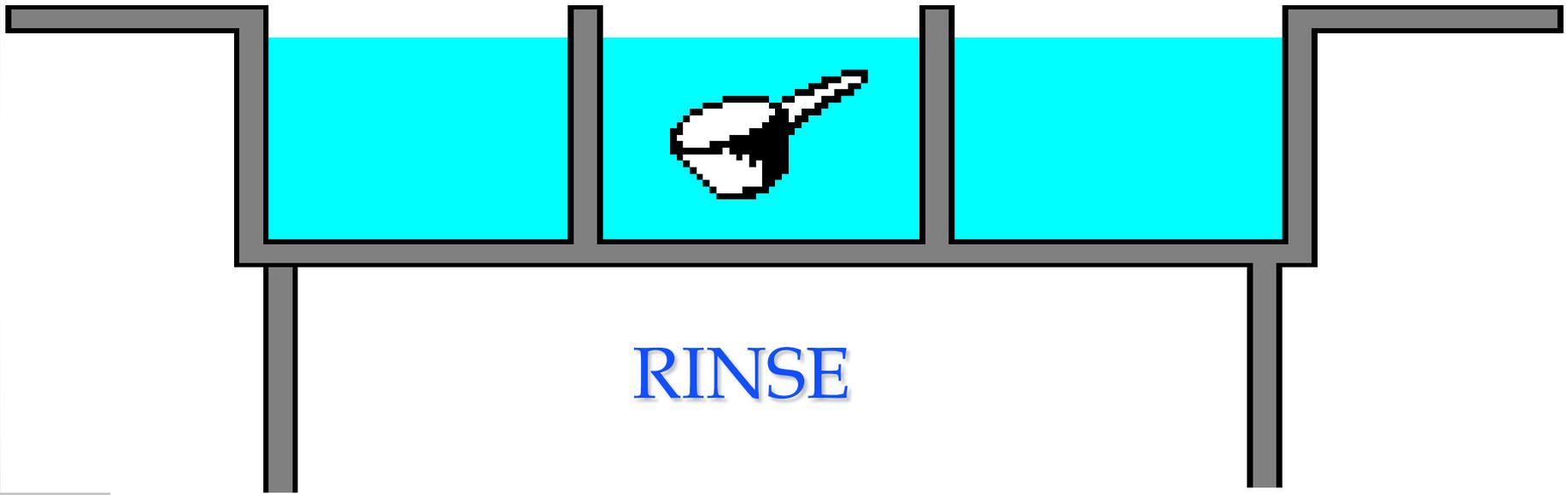
# 3 Compartment Sink Use

- ◆ Clean and sanitize sinks and clean drain board.
- ◆ Scrape and pre-soak soiled items
- ◆ **Wash** in 1st sink using clean detergent solution 120°F
- ◆ **Rinse** in 2nd sink with clear potable water at 120°F
- ◆ **Sanitize** in 3rd sink using:
  - ➔ chemical sanitizing solution (75°F minimum) for one minute.
- ◆ **Air dry**. *Do not wipe dry.*

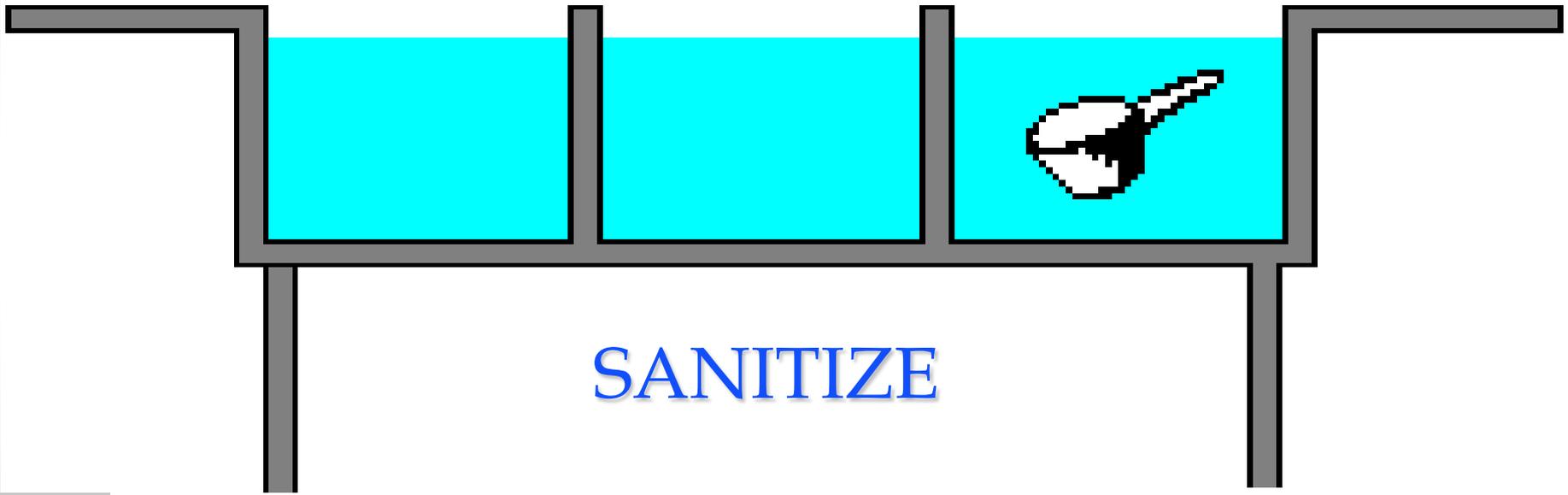
*Remember.....*



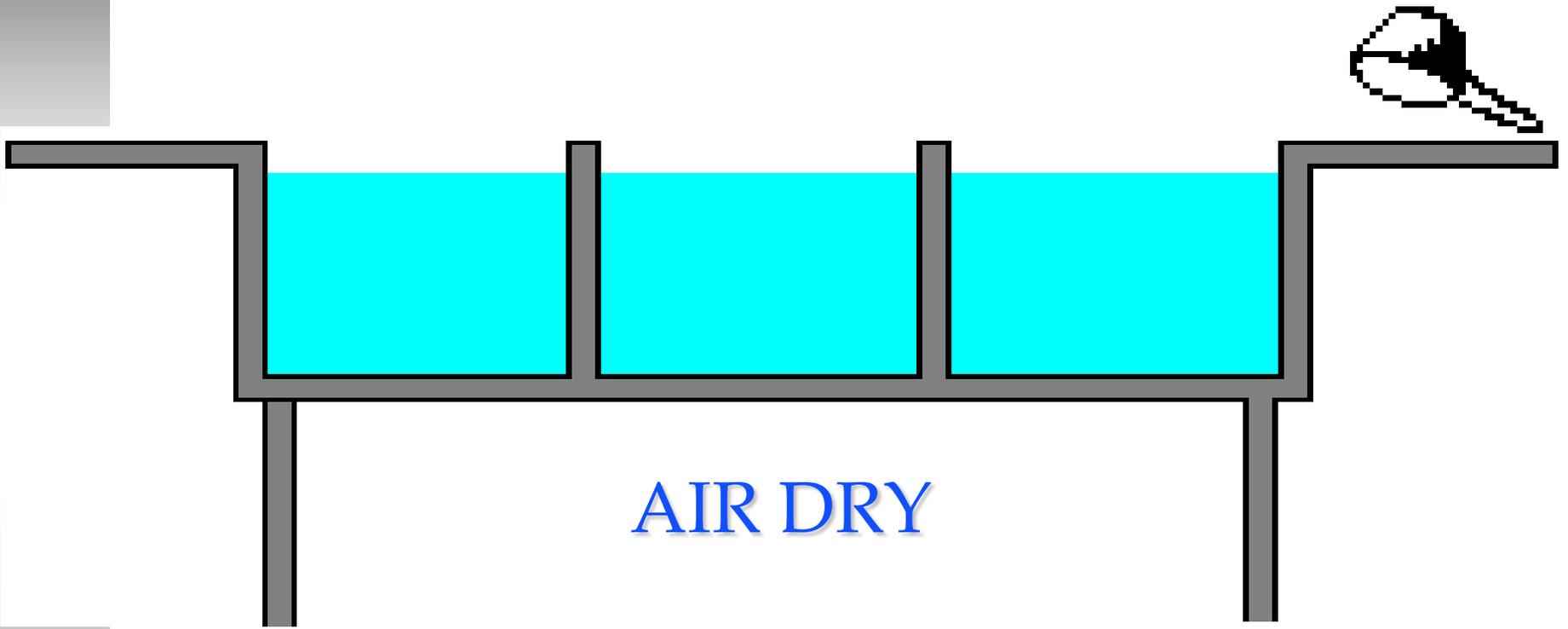
WASH



RINSE



SANITIZE



AIR DRY

## *Empty & Refill Sinks When:*

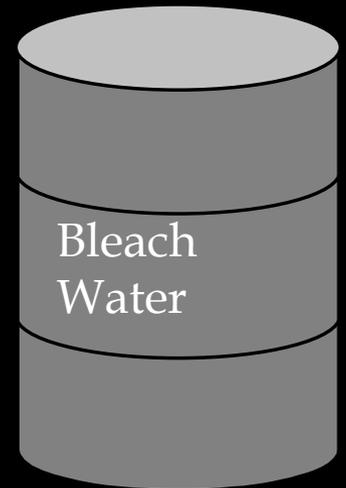
- Soap suds disappear in 1st sink
- Suds remain in 2nd sink
- Water temperature cools
- Water becomes dirty or cloudy in any sink

# *Chemical Test Kits*

- ◆ Use the proper kit for the sanitizer being used:
  - Chlorine 100 ppm
  - Quaternary Ammonia 200 ppm
  - Iodine 12.5 ppm
  - Other (i.e.. pH for anionic acids)

# *Wiping cloths*

- ◆ Store in sanitizer bucket between use
- ◆ Change when dirty
- ◆ Use on food contact surfaces only



# *Storing Utensils & Equipment*

- 📄 In a clean, dry, protected area
- 📄 At least 6" above floor
- 📄 Inverted
- 📄 Air dried (no wet-nesting)
- 🖱️ Do not use use cardboard, paper, or foil as shelf liners.



# *Integrated Pest Management*

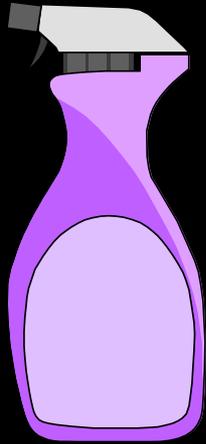
## **3 common-sense rules for IPM:**

- ◆ Deny pests food, water, and shelter by following good sanitation and housekeeping practices.
- ◆ Keep pests out of the foodservice operation by pest-proofing the building.
- ◆ Work with a licensed and registered PCO.

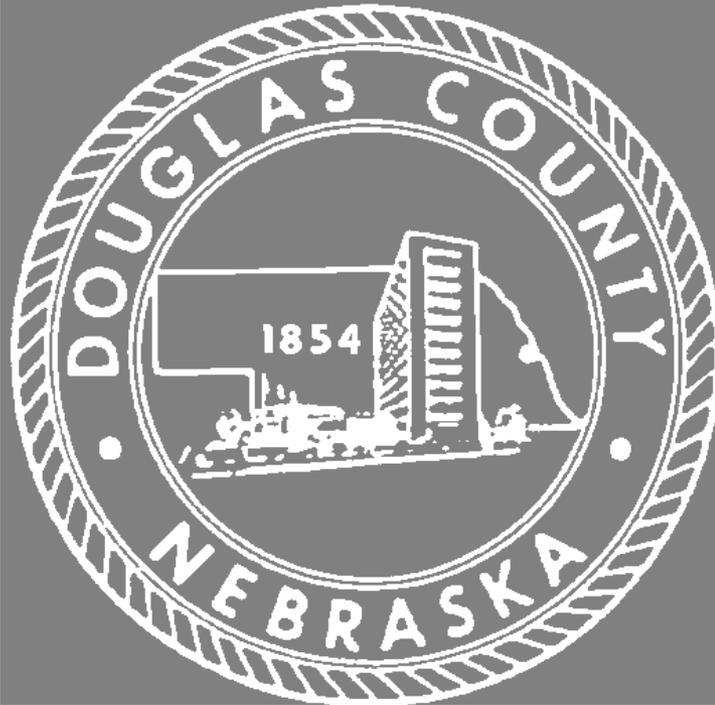
# *Preventing Pest Infestations*

- ◆ **General Preventive Practices:**
  - Use reputable and reliable suppliers.
  - Dispose of garbage immediately.
  - Use sanitary recycling practices.
  - Store food and supplies properly.
  - Keep facility clean and sanitary.

# Chemical Supplies



- ◆ Have only essential, approved chemicals on hand
- ◆ Store chemicals away from food or utensils
- ◆ Put away after each use
- ◆ Label all chemical containers
- ◆ Pesticide applications by Certified PCO only



# Food Handler's Quick Course

DEVELOPED BY MARK KENNE, REHS  
DOUGLAS COUNTY HEALTH DEPARTMENT