

COMPETENCY #2 and #3:

Understand proper laundry techniques.

Define elements of laundry including: water temperature, detergent selection, dry cleaning, ironing, sorting, hand washing, laundry aids, pretreating heavy soils and stain removal.

CONCEPT: By understanding how to launder clothes properly, students will learn to better care for clothes, and keep them in good condition longer. They will also see the connection of good laundry techniques and saving money in the long run for clothing.

MOTIVATOR: Teacher can bring in clothes that have been ruined in the laundry process. Discuss what happened in each case and how it could have been avoided.

VOCABULARY:

1. SORTING- the process of separating clothes into suitable wash loads.
2. DETERGENT- a washing product used to remove soil.
3. WATER HARDNESS- the amount and type of minerals in the water.
4. AGITATION- the action of the washing machine during washing and rinsing.
5. WATER SOFTENERS- a device or product that removes minerals that cause water hardness.
6. BLEACHES- products used to maintain white appearance of white fabrics and brightness of colors in colored fabrics. It can also remove stains in some fabrics.
7. FABRIC SOFTENERS- substances that reduce static electricity, help prevent wrinkles and make clothes easier to iron.
8. STARCH- gives crispness and body to fabrics. Can be used in spray or liquid form.
9. DRY CLEANING- the process of cleaning clothes or other textile products with non water solvents or absorbent materials.
10. IRONING/PRESSING- the process for removing wrinkles from clothing with heat, steam and pressure.
11. STAIN REMOVAL- the process for removing stains or heavy soil from fabrics.
12. HAND WASHING- Removing soil from delicate fabrics by gently hand washing. Refer back to the motivator asking, "Why Ziggy's laundry methods might not work".

LECTURE/DISCUSSION

Discuss the vocabulary words.

ACTIVITY:

1. Provide fabric swatches, or actual clothing/household articles for the students to sort into correct wash loads.
Ask students to give reasons on why they sorted the fabrics the way they did. Student groups report to class.
2. Make a Bulletin board of "sorting disasters" with explanation of why the disaster occurred.
3. Have laundry products available for students (working in groups) to examine and evaluate. Have them group the products according to their purpose and use.

LECTURE ON LAUNDRY TECHNIQUES

As the lecture is given, the students will complete the worksheet on laundry techniques.

CLASS DISCUSSION:

1. WATER TEMPERATURE

Can directly affect:

- A. cleaning
- B. wrinkling
- C. durability of colors
- D. durability of fabric finishes
- E. energy costs

The different water temperatures mean:

- A. Hot: 140-150 degrees
Used for: Heavily soiled items
white durable fabrics
diapers
- B. Warm: approx 100 degrees
Used for: majority of wash loads
helps maintain color and fabric finishes
decreases energy costs and wrinkles
will clean effectively if used with
proper cleaning agents
- C. Cold: 60-80 degrees
Used for: color sensitive and other delicate items
cleaning performance of all detergent products is
significantly diminished.

II. DETERGENTS and SOAPS

- A. Detergents work better in hard water than soap.
- B. Soap does not work well in hard water. It can cause a lime soap buildup when used with hard water.
- C. Detergents fall into two main categories:
 - 1. Heavy duty products: designed primarily for the regular family wash, but suitable for use on all washable fabrics.
 - 2. Light duty products: suitable for lightly soiled fabrics.
- D. Detergents contain **SURFACTANT**
 - 1. surfactant is an abbreviation for "surface active agent". Surfactant quickly reduce the surface tension of water. It is to make water "wetter".

Demo: Place a closely woven piece of fabric on top of a bowl of water without any detergent. Mix 1 Tbsp. of detergent with a quart of water. Place the same type of fabric on the top of this bowl of water. The one without detergent will float for a few minutes before it sinks. In the presence of a surfactant it will wet out quickly and sink. The surfactant speeds up the washing process.

- 2. Surfactant is the main cleaning agent in a detergent. A surfactant molecule has a head which is water soluble or water-loving (hydrophilic) and a long organic body which is oil-like and oil-loving or water-hating (hydrophobic) The water-hating ends of the surfactant molecules attach themselves to soil particles while the water-loving heads, with their strong attraction for water, exert the necessary pull to dislodge many soils.
- 3. Surfactant Systems perform 3 main functions
 - A. Improves the wetting ability of water
 - B. Loosens and removes soil - with the aid of wash action.
 - C. Dissolves or suspends soils in the wash solution.
- 4. How much detergent or soap should you use?
 - A. Use the following guidelines to determine amount.
 - a. size of load
 - b. amount and type of soil
 - c. hardness/softness of water
 - d. type of machine (front vs top loader)
 - B. Follow manufacturers instructions

III. BLEACHES

Two types: Oxygen and Chlorine

A. Oxygen

1. safe for all fabrics
2. works best in hot water or in a soak
3. comes in dry or liquid form
4. What it does:
 - a. whitens
 - b. helps remove some soils
 - c. removes stains

B. Chlorine

1. use on white or bleach-fast colored cottons, linens, acrylics, nylons, polyesters, and durable press fabrics.
2. always dilute chlorine bleach
3. never combine with other products, will produce noxious fumes
4. What it does:
 - a. whitens
 - b. helps remove some soils
 - c. deodorizes
 - d. disinfects
 - e. removes stains

C. How to test for bleach fastness of colored fabrics:

Chlorine Bleach:

Mix 1 Tbsp. of bleach with 1/4 cup water. Apply 1 drop of this bleach solution to an inconspicuous portion of the fabric. Be sure the solution penetrates the fabric. Let stand 1 minute. Then blot dry with paper towel. If there is no color change, the article can be safely bleached.

Oxygen Bleach:

Make a solution of 1 Tbsp. of the bleach to 1/2 gallon of hot water. Dip an unexposed portion of the item up and down in the hot solution. If color does not bleed or there is no color change, the product may be used as recommended for laundering or soaking.

IV. FABRIC SOFTENERS

- A. Used to impart softness or fluffiness to washable fabrics and to control static electricity on fabrics, especially those made from man-made fibers.
- B. Types:
 - 1. Washer-added fabric softeners:
 - a. comes in liquid form added to rinse water
 - b. do not add other products at the same time.
 - c. dilute if adding to a dispenser.
 - 2. Dryer-added fabric softeners:
 - a. comes in sheet form of different sizes
 - b. works with the heat of the dryer
- C. Special tip: Should fabric softener be spilled on a fabric or should fabric softener in the dryer concentrate on an area of fabric causing a stain, simply rub these stains with bar soap e.g. Ivory and laundry. The bar soap will in most cases remove the stains if, in fact, it was caused by the fabric softener.