

Observing Cross-Contamination

Directions Certain foods, such as raw meat and eggs, contain bacteria that can be harmful to your health. That is why cooking these foods thoroughly before eating them is important. Just being careful with the foods themselves, however, is not enough. Anything these foods touch while raw can pick up bacteria, which can spread to other foods. Follow the steps below to observe how the juices in raw meat can spread to other foods.

- 1 Gather supplies.** You will need a piece of raw chicken, turmeric (tər•mu-rik) (a spice with a bright yellow color), two cutting boards for meat, two knives, and three potatoes.
- 2 Put spice on the chicken.** Take the piece of raw chicken and sprinkle it with turmeric. Rub the spice all over the surface of the meat to coat it thoroughly.
- 3 Place the chicken on a cutting board.** If you are doing this experiment at home, be sure to choose a cutting board that is used for meats. If you are doing the experiment in the school foods lab, ask your teacher which cutting board to use. Cut the chicken into small pieces and set it aside. Observe how much of the yellow color from the turmeric is on your hands, the knife, and the cutting board.
- 4 Wash your hands.** Wash your hands carefully after handling the raw chicken, but do not wash the cutting board or the knife.
- 5 Cube a potato.** Place a raw potato on the same cutting board and cut it into cubes, using a different knife than the one used on the chicken. Observe how much of the yellow color is transferred to the potato from the cutting board.
- 6 Cube another potato.** Now cut up another potato on a different cutting board, using the same knife that you used to cut the chicken. Observe how much of the yellow color is transferred to the potato from the knife.
- 7 Wash the knife and board.** Wash both the knife and the cutting board that you used to cut up the chicken, using warm water and dish detergent. Rinse them and dry them with a dishtowel.
- 8 Cube a third potato.** Cut up another potato using the washed cutting board and knife. Observe whether any traces of the turmeric color spread to the potato from the cutting board and knife even after they have been washed.
- 9 Summarize the results.** In writing, draw conclusions about what steps are necessary to prevent bacteria from spreading between foods.

Using a Price Book

Directions A price book can help you and your family find the best prices for your money. Read the article below. Then follow the steps to create your own tool for getting the best buys. Practice your math skills with the Discovery activity. Note that this activity focuses on grocery items, but you could create a price book for other products you buy regularly, such as toiletries, CDs, and school supplies.

When you shop at just one store, getting the best price on a particular item—say, a jar of peanut butter—is simply a matter of comparing different brands and sizes. With a quick check of the unit-price label on the shelf, you can choose the jar that costs the least per ounce if the quality is suitable.

On the other hand, what if several stores sell peanut butter in your area? Which one has the best price? Keeping track is not easy. Most people can not remember all the prices on many items in various stores. They might not know whether a sale price one place beats the regular price somewhere else.

A practical solution is to keep a price book that you carry with you to write prices in. It has one page for each item you buy regularly.

On the page, you put information about products, including store names, brands, and costs. You do not have to keep track of every brand sold at a store. Just noting information about the best deal at a store is fine. If you like a specific brand, you could limit your record to the prices for that brand.

It can take some time to collect all the information needed for a price book. Once you do, however, you have it all at your fingertips every time you shop. You can tell whether a sale on peanut butter at a different store is a good deal or not. If you spot an unbeatable price somewhere, you can stock up. If a new store opens in your area, your price book can show at a glance how its prices compare to the data you have collected at stores in your area.

- 1 Choose a notebook.** Any kind will do, as long as it is small enough to carry with you when you shop. A small loose-leaf binder is convenient. With it, you can insert pages for new items and replace pages when prices become out-of-date.
- 2 List items commonly bought.** What do you and your family shop for regularly? For supermarket purchases, your list will probably include such staples as bread, eggs, and milk. It may also include meats, produce, canned goods, and nonfood items, such as toilet paper and cleaning supplies. Choose 15 to 20 items to get your price book started. Write the name of one item at the top of each page in the book. Alphabetizing the pages makes them easy to find.

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CHAPTER 18: Food Shopping, Storage, and Sanitation (cont.) Focus on Consumers

3 Collect prices. Write down prices for each product you listed. Begin by checking store receipts from recent shopping trips. You might also look at supermarket fliers that come in the mail or are delivered with the newspaper. Be careful, however, as these prices could be sale prices that are good for a limited time only. You need the store’s regular prices for the book. Below is a sample price book page that you can use as a model for making your own.

Raisins				
Store Name	Brand Name	Size	Price	Unit Price
S&S	Sunny Delight	24 oz.	\$3.49	\$2.33/lb.
S&S	Natural Too (organic)	11 oz.	\$3.49	\$5.08/lb.
WO	Store brand	12 oz.	\$2.99	\$3.99/lb.
TJ’s	Store brand (organic)	1 lb.	\$2.59	\$2.59/lb.
WEC	Bulk bin (organic)			\$2.99/lb.

4 Shop with your book. You probably will not get all the information you need from receipts and store fliers. Take your price book to the store where you and your family shop regularly. Add any missing information to the book.

5 Compare prices. Now take your book to different stores where the items you selected can be purchased. Check each item and record the same information. Report to the class on what you discover. Your price book is actually a work in progress. As you use it, you will add new items and adjust for price changes.

Discovery

When to Spend More Your price book can also help you decide when it is worthwhile to spend a bit more. For example, suppose you want to buy some organic products. They typically cost more, but for a minimal difference, you might decide to buy them anyway.

Use your price book to compare prices. Select and list three different products available in both conventional and organic forms. Go to two or more stores and record the prices for each product, both organic and conventional. How do prices compare? What are the price differences? Is organic more expensive? Calculate how much higher any costs are as a percentage of the total price. To do this, divide the price difference by the higher price. Would the price difference be worthwhile to you and your family?

Example: Price A is 80¢. Price B is 60¢. So $20¢ \div 80¢ = .25$, or 25%.

Food Storage

Directions How important is proper food storage? Read the following information about food storage techniques. Then complete the experiment to see the difference that storage methods can make.

If you store food properly as soon as you return home from shopping, food stays fresh longer. Remember these tips for storing foods:

- Keep a supply of storage items handy, such as plastic bags and containers with tight-fitting covers.
- Do not set a milk jug or other packages on the floor before you put them away.
- Store refrigerated and frozen foods in airtight containers to prevent drying out.
- Wash fresh fruit under cold water before eating or preparing. This removes dirt and reduces bacteria that may be present. Do not use detergent or soap.
- Store ripe fruit in the refrigerator to slow down additional ripening. When bananas get too ripe, peel and store them in plastic bags in the freezer to use later for banana bread or cereal toppings.
- Store dried fruits at room temperature until opened. After opening, store them in the refrigerator in covered containers to keep them fresh and soft.
- Refrigerate fresh vegetables, such as carrots, lettuce, and green beans. Wash them just before using them to maintain nutrient value.
- Store potatoes and onions in a cool, dry place.
- Refrigerate whole-grain products to maintain freshness. The oils in whole-grain flour and baked products, nuts, and seeds can quickly turn rancid, especially in hot weather.
- Keep bread in the freezer if you do not use it quickly. Thaw as needed.
- Store herbs and spices in a cool, dark place. Alphabetize them so you can find them easily when needed.

Experiment: The Effects of Different Storage Methods

1. Obtain five leaves of fresh, crisp lettuce.
2. Store two leaves unrefrigerated as follows:
 - Leaf 1:* Store uncovered and do not refrigerate.
 - Leaf 2:* Place in a sealed plastic bag and do not refrigerate.
3. Store three leaves refrigerated as follows:
 - Leaf 3:* Wrap in paper or cotton toweling and refrigerate.
 - Leaf 4:* Place in a plastic storage bag, seal the bag, and refrigerate.
 - Leaf 5:* Place in a plastic container with a tight-fitting cover and refrigerate.
4. For 1 week, record the appearance of each leaf every day.
5. Draw conclusions about effective storage methods. Consider the effects of air and temperature as well as container materials.