



## **Sour Power**

### *Hands-On Activity*

#### **Background Information**

You can kill most of disease-producing bacteria in milk by heating it to 143° F (62° C) and then keeping it at that temperature for 30 minutes. This process is called pasteurization. Today "flash pasteurization" is commonly used instead, in which milk is heated at higher temperature of 160° F (71° C) and maintained for 15 seconds. In this activity, you'll explore how the growth of additional bacteria after pasteurization is slowed in colder temperatures.

#### **What You Need**

- ◆ two clear plastic cups
- ◆ pasteurized milk
- ◆ refrigerator

#### **What to Do**

1. On a Monday, pour a small amount of milk in each of two cups.
2. Place one cup in a warm area, such as on a sunny windowsill. Place the other cup in a refrigerator.
3. What do you think will happen to the milk in each cup over the next week? Write your predictions on the worksheet.
4. Over the week, check both cups each day and write your observations in the worksheet chart. At the end of the week, answer the final worksheet question.

## Worksheet Sour Power

Name \_\_\_\_\_

1. What do you think will happen to the milk in each cup over the week?

---

---

2. What difference, if any, do you see between the refrigerated and non-refrigerated cups of milk?

Day	Comparisons and Other Observations
Tuesday	
Wednesday	
Thursday	
Friday	
Monday	

3. How are the milk samples different? What caused the changes?

---

---