**Chapter Science Investigation** 

#### Name \_\_\_\_\_

# Using Chemical Substances Safely

#### WHAT YOU NEED







labels from various household products (for example: oven cleaner, bug spray, weed killer, rubber cement, and so on)



#### **Find Out**

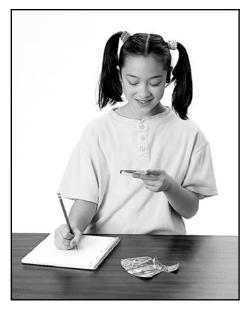
Do this activity to learn how to safely use cleaning products and other chemical substances found in your home.

#### **Process Skills**

Observing Interpreting Data Communicating

#### **Time**

- 30 minutes the first day
- 20–30 minutes several times over the next three weeks



#### WHAT TO DO

**1.** Work in a group. Have your group choose and read the label on one household product.

Safety! Make sure to use only the product label. The products and product containers can be harmful to your health. They should not be brought into the classroom.

**2. Look for** warning instructions.

- **3.** Does the label tell you how to use the product safely?
- **4.** Does the label give the health hazards of the product?
- **5.** In case the product is misused, does the label give first aid instructions?
- **6. Record** your findings.
- **7.** With your group, **write** the script for a TV commercial that explains how to safely use your product.
- **8. Perform** your commercial for the rest of your class.



Using Household Products Safely		
Name of Product		
Warnings		
How Should the Product Be Used?		
What Are the Health Hazards?		
What Is the Suggested First Aid?		

#### **Conclusions**

**1.** Why is it important to read the label before using a new product?

**2.** Why should you not store household products in containers different from the ones they came in?

**3.** Do you think it is a good idea to mix different types of cleaners?

#### **New Questions**

1. Where do you think products like these should be stored?

**2.** Ask an adult to go through products like these at home with you. Find safe places to store the products.



Lesson 1 • Chemical Substances Cause Changes





### **Educating Others**

Use the chart to **collect** information about different chemical substances. Use the information you collect for your posters.

Type of Substance and Examples	Medical Uses	Side Effects
Stimulants		
1		
2		
3		
Depressants		
1		
2		
3		
Antibiotics		
1		
2		
3		

Lesson 1 • Chemical Substances Cause Changes

#### **Conclusions**



(1) Do you **think** a doctor would prescribe a stimulant for someone who has trouble sleeping? Why or why not?

What suggestions could a doctor make to this person before a drug is prescribed?

If nothing else works, which type of chemical substance might be prescribed?

**Explain** why someone using alcohol should not drive.

#### **Asking New Questions**



Why do some drugs need to be prescribed by doctors only?

Why do you think some drugs are illegal?

Name





## **Reading the Label**

**Write** what you find out about different medicines in this chart.

What Is it Used For?
What Is an Adult's Dosage?
What Is a Child's Dosage?
How Often Should This Be Used?
What Are Side Effects of the Medicine?
What Are Side Effects of the Medicine:
What Are the Warnings?
What Are the Warnings:
What Is the Evaluation Date?
What Is the Expiration Date?

Lesson 2 • Positive Effects of Chemical Substances

#### **Conclusions**



Why should people read the labels on medicine bottles?

- Why should people know a drug's side effects?
- Why is it important to check a medicine's expiration date?

#### **Asking New Questions**

- Are there more over-the-counter medicines for the common cold or for chicken pox? How could you find out?
- Ask a parent to go through the medicine cabinet at home with you. What do you think you should do with medicines that have expired?

**Lesson 3** • Abuse of Chemical Substances

Name \_\_\_\_\_





# Tracing the Effects of Chemical Substances

What chemical substance did your group choose?

**List** the parts of your body that come in contact with this substance.

What effects can this substance have on your body?

Lesson 3 • Abuse of Chemical Substances

#### **Conclusions**



How many different organs are affected by one chemical substance?

- Which organs of the body are most affected by all chemical substances?
- Why is it important to know how a chemical substance affects your body?

#### **Asking New Questions**



What type of long-term effects can chemical abuse have on a person?