

Name \_\_\_\_\_

Date \_\_\_\_\_

## Making Observations

**Purpose:** To practice making qualitative and quantitative observations.

### **Background Information:**

One of the most important skills in science is that of OBSERVATION. Most of the time we think of observation as something we do with our eyes; when we see something, we observe it. However, all five of our senses can be used to make observations: sight, hearing, taste, touch, and smell.

A good scientist is observant and notices things in the world. She or he notices what's going on in the world and becomes curious about what's happening. Observing can include reading and studying what others have done in the past because scientific knowledge is collective. Observations in science are called DATA.

We can make two kinds of observation: those that are FACTS, and those that are OPINIONS. Facts are those things that are true for everybody. A scientist looks seriously at information and attempts to avoid all sources of bias in making observations. Opinions are beliefs based on personal preference. Data may also be QUALITATIVE or QUANTITATIVE.

*Qualitative data* is information that is hard to measure, count, or describe in numbers. It describes the qualities or characteristics of something. Examples are colors, tastes, and sound.

*Quantitative data* is information that can be expressed in numbers. If information can be counted or measured, then it is quantitative data. Tools are often used to collect quantitative data. Examples include amounts, temperature, mass, and length.

As you make observations, you may begin to ask questions about those observations. Observations are usually written down, or recorded in DATA TABLES or DATA CHARTS. Tables and charts help keep data organized and easy to understand.

### **Procedure:**

1. Close your eyes. Keep them closed!
2. Use your sense of TOUCH to observe the object I put in your hand.
3. Write at least three sentences describing what you observed.

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4. Use your sense of HEARING as you unwrap the object.
5. Write at least three sentences describing what you observed.

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6. Use your sense of SIGHT to observe the object.
7. Write at least three sentences describing what you observed.

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8. Use your sense of SMELL to observe the object.
9. Write at least three sentences describing what you observed.

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