

## **Scientist Sophie Experiments with Plants (Teacher Master)**

Scientist Sophie did some experiments with plants. She observed plants that were grown in different ways. She has some results that she wants share with other scientists.

### **Experiment 1: Do Plants Need Light?**

One group of plants didn't get any light. Another group of plants got light all day long. Scientist Sophie observed that all of the plants that got light are bright green and are standing up straight. The plants that didn't get any light are turning yellow. Some leaves are falling off the plants, and the plants aren't standing very straight.

What does this tell you about whether plants need light? What is your evidence?

### **Experiment 2: Do Plants Need Water?**

In another experiment, Scientist Sophie gave water to some plants. But she did not give water to another group of plants. The plants that got water look bright green and are standing up straight. The leaves on the plants that didn't get any water are turning brown and drooping. Some leaves are even falling off the plants.

What does this tell you about whether plants need water? What is your evidence?

### **Experiment 3: Do Plants Need Air?**

In another experiment, Scientist Sophie grew some plants that had plenty of air, and some that didn't get any air at all. The plants that didn't get any air are brown and are falling over. The plants that had air all of the time are green and are standing up straight.

What does this tell you about whether plants need air? What is your evidence?

### **Experiment 4: Do Plants Need Soil?**

In her final experiment, Scientist Sophie planted some seeds in soil and some seeds in wet paper towels without any soil. Sophie compared the plants that grew from the seeds. All of the plants with soil and all of the plants without soil are bright green and are standing up straight.

What does this tell you about whether plants need soil? What is your evidence?