



Activity

In England in 1773, Joseph Priestley put a mint plant in a bell jar to prove his hypothesis that plants could not survive without air. He also conducted this experiment with candles and with mice. He discovered that when he placed a mouse and a plant in the bell jar together, they both lived; he thereby discovered that plants took in carbon dioxide and produced oxygen, the opposite and complement of animals. In this experiment, students will use 5 plants – 1 control and 4 variables – to prove the importance of L.A.W.N. to plant life.

MATERIALS

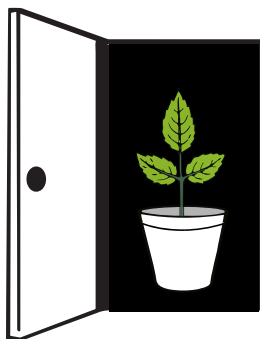
- 5 Mint Plants
- Bell Jar
- L.A.W.N. – light, air, water, and soil
- A rubric to record experiment results

PROCEDURE

Working as a group, the students will establish 5 plants and monitor them for at least two weeks.

At the beginning of the experiment and as a group, students will form a hypothesis as to what will happen to each plant and why. Each day, they will examine each plant and record their observations. At the end of two weeks (or longer, if it takes longer for results to show), the students will draw conclusions based on the evidence.

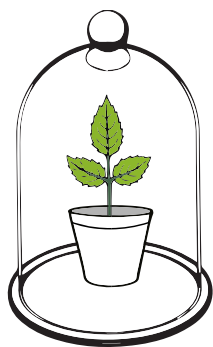
1



The first plant should be placed in a closet or other dark location, where it should receive air and water, and be rooted in soil.



2



The second plant should be put under a bell jar, receive sun and water (lift bell jar only long enough to water plant), and be rooted in soil.



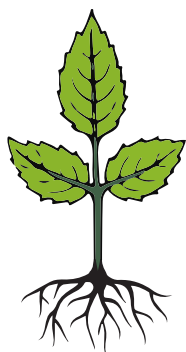
3



The third plant should be placed in a sunny location, receive air and be rooted in soil; but the students should not water it.



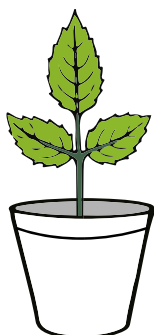
4



The fourth plant should be removed by its roots from the soil, and placed so that it can receive light, air, and water.



5



The fifth plant, the control, should receive all four necessary elements of L.A.W.N.

