

## One: Observations of living things are recorded in the lab and in the field ...

### Oral directions for students

You have been provided with a suspension of living yeast cells. Soak a filter paper disc in the yeast suspension, then place the disc at the bottom of a well containing hydrogen peroxide. Observe. You have also been given some water to use for making dilutions of hydrogen peroxide. Explore this system, using different concentrations of peroxide in the wells.

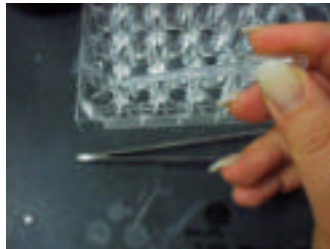
Record as many observations as you can. Record what you do, and then record what you see. It is important to record observations of everything that you do, **and** everything that you see.

Record both qualitative and quantitative observations. An example of a **qualitative** observation would be: The yeast suspension looks cloudy and cream-colored. An example of a **quantitative** observation would be: It took the disc 10 seconds to rise from the bottom of a well that had a mixture of 10 drops of water plus 10 drops of peroxide.

A **student worksheet** with these directions is in the Appendix.

Students can fold their recording paper in half. Label the left side: "What I did" and the right side "What I observed."

### Students explore the floating disc assay system. (30-90 minutes)



**How will students get different concentrations of peroxide?** Students need to figure this out themselves. They will mix the water and peroxide to make different concentrations, and can easily do this by counting out drops of each liquid into the plate wells. Some will recognize that to systematically change the concentration, they must keep a constant volume. Some will not see this, and will simply change amounts of peroxide. That's OK at this point.