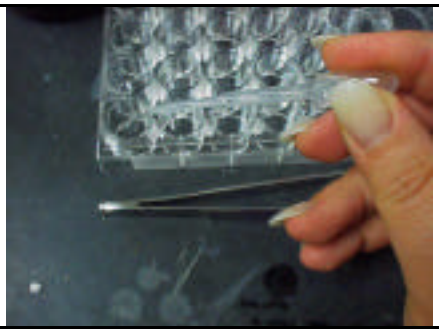
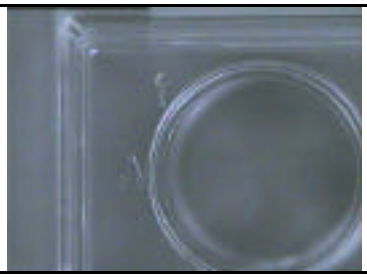
Working with the Yeast Catalase Assay Materials

Students should first practice counting drops into a 10 ml graduated cylinder or dry test tube. Each student in the team can mark off, or note in their lab books, the levels reached by 20 and by 40 drops. They should discuss how much pressure each is applying to the bulb and observe how large a drop each is forming. This really only takes the students 2-3 minutes to accomplish from initial practice to getting teammate consistency in drop and total volume appearance.	
Each brand of 24-well dish is marked in the mold. You will have to look carefully at first, but you will find that rows (4, A-D) are lettered and lanes (6, 1-6) are numbered. The well that is marked A1 is visible in this example.	
As described earlier differences in total volumes in each well will have a big impact on the enzyme activity. Generally, students will be viewing the dishes from the top. It will be helpful for you to check around and look along the SIDE of the dish. Notice that it is easy to see variations in volume, especially since the wells hold less than 3 ml each.	
Students need to check carefully that they have only taken up 1 disc with their forceps. This will be a common procedural problem contributing to their experimental error. They will probably realize this only after the fact. Let them discover how important AND easy it is to be observant on their own!	
Students WILL be able to see the discs rise to the SURFACE of the liquid. The discs may rise along the side, but the endpoint is when the disc is flat up on the surface. Students will discover that when the reaction is slower, the discs will show more of the side-rising behavior.