

Preparing a slide to view microbes under a microscope

*from Johnson County Wastewater
MIDDLE BASIN PLANT*

1. Three samples of activated sludge, usually in gallons containers, are collected from our aeration basins and brought into the lab for testing. Each sample is mixed and poured into a corresponding beaker. After a few minutes, the sediment settles and creates a concentration of the microbes we are interested in looking at. We wear gloves at various times throughout our testing to protect us from contamination.



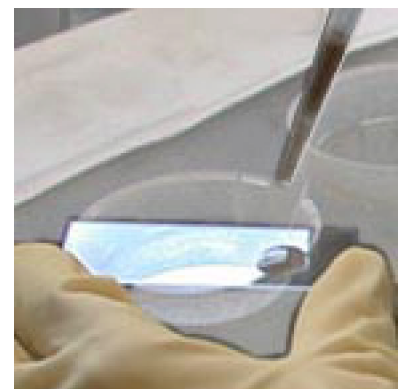
2. The slide is first cleaned with a sterilized tissue to remove dust and moisture which may have settled on it from the air. TIP: We used a new slide for each test we conduct daily, however, we can economically placed three drops, one from each sample, on a single slide. Besides saving money, we also save time with this method.



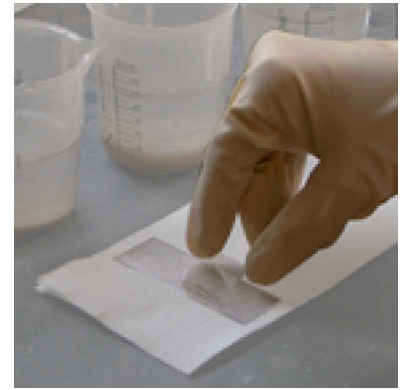
3. A long eye dropper is inserted into a sample. A portion is collected from the sediment at the bottom of the beaker.



4. Carefully, a single drop from each sample is placed on a slide.



5. A cover sheet is placed over a drop. TIP: We place the cover sheet at an angle. That is, the bottom edge of the cover sheet is positioned so it touches the edge of the drop and the slide. The rest of the sheet is quickly dropped over the activated sludge to avoid trapping air bubbles.

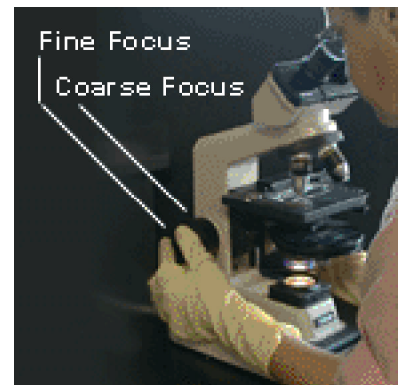


6. The slide is mounted onto the microscope's stage with the cover sheet facing upwards.



7. To focus, start with the microscope's lowest magnification, 10X.

8. Look into the eyepiece and begin focusing by rotating the coarse focus dial that controls the direction of stage movement and distance between the stage and the light. It's the larger of the two knobs on both sides of the microscope's frame.



9. Look into the eyepiece and focus the image with the fine focus knob. The fine focus knob is the smaller of the two knobs located on both sides of the microscope's frame.

10. Rotate the revolving nosepiece with the various lens , to achieve a more powerful magnification. The nosepiece will click-stop into position. Note: There are many other dials, knobs and adjustments that are possible but these are the procedures Middle Basin personnel use most often.