

Context for LabTap SOP

Background

Because of confidentiality agreements, I've had to be innovative to create samples for my portfolio. Standard operating procedures (SOPs) is one document type I've written and/or edited in the workplace. Wanting to include SOPs in my portfolio caused me to brainstorm a procedure that I could write. This resulted in a procedure for setting up and using a microscope.

- **Audience:** Employees using microscopes in Bio-5 Lab at LabTap.
- **Percentage of I wrote:** 100%.
- **Original content or revised content:** The document is my original writing.
- **Resources for drafting content:** To create the content, I watched a YouTube video for setting up a microscope. From this video, I was able to create a draft. I took screenshots from the video to create images. The references used for drafting the content are listed in the document in the last section.
- **Content editing:** I edited the document myself as someone confident in my editing abilities because of my background. The document underwent heavy editing.
- **Style guide usage:** I did not use a style guide but used a style sheet.
- **Additional useful context, such as deadlines, achievements, etc.:** See the following sections.
- **Changes after publication and why:** No changes occurred after publication.

My Process

After identifying the procedure I wanted to write, I created the context for the procedure. I made up a company name and lab name where microscopes would be stored. Once I determined who the users would be, I was able to focus on starting the draft.

To assist me in drafting the procedure, I searched for information on setting up and using a microscope. The resource that fully met my need was a YouTube video. I drafted the procedure, edited the content, and created the final copy after the editing process.

How I Went Above and Beyond

Because I strive to deliver quality, usable content, I usually do above the bare minimum. To meet the standard that I set for my work, I went beyond just writing information by also doing the following:

- creating and using an aesthetically-pleasing template for the SOP that enhances readability and is easily scannable.
- including content controls in the template so that repeating information would be automatically added into the document when typed once, decreasing time spent typing the same information in multiple places, increasing productivity, and decreasing opportunity for human error. The only requirement is that the document creator must type the correct information in one location where the content control exists to populate that information throughout the document.
- creating a logo for the fake company (developing a brand), which guided the template colors to remain on brand.
- including document control elements: document number, revision history page, headers and footers to help users recognize differences in versions even when pages are printed and separated from the full document.
- taking screenshots from the YouTube video to provide images in the SOP and increase understanding of the steps.

LabTap+

Bio-5 Lab Microscope Setup and Use Standard Operating Procedure

8651-PRO | Revision 1 | Final
January 21, 2020

Document Control

Project Title	Bio-5 Lab Microscope Setup and Use
Document Type	Standard Operating Procedure
Prepared By	Marilyn Jones, Technical Writer
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Approved By	Lisa Tom, Biologist
Ixus Document No.	8651-PRO
Revision Number	1
Revision Status	Final

Revision History

Rev	Status	Description
0	Draft	Initial draft sent for subject-matter expert review.
0	Final	Published version.
1	Final	Added more images for clarity.

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1. Introduction and Scope

This standard operating procedure contains basic instructions for setting up and operating microscopes in the Bio-5 lab. Microscope maintenance and troubleshooting information is in another procedure, "Microscope Troubleshooting and Maintenance."

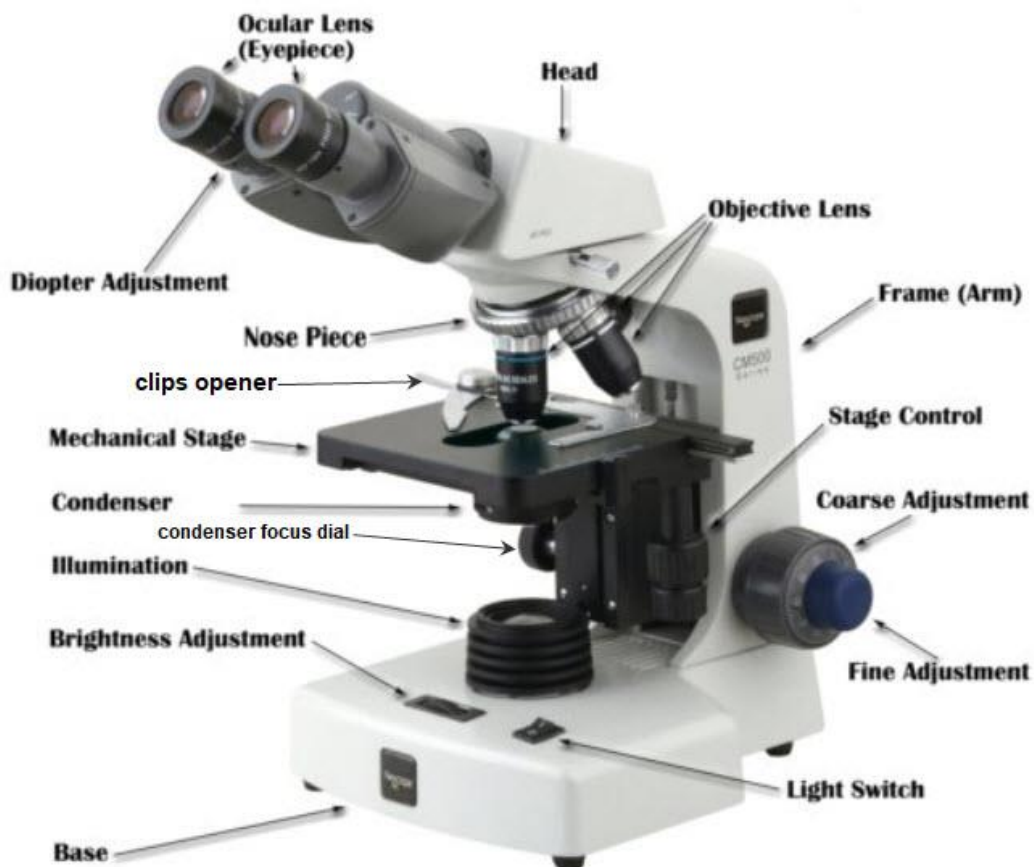
2. General Safety Requirements

Please abide by the following guidance for safe work practices when setting up and operating a microscope:

- Always carry a microscope with both hands. Grasp the arm with one hand, and place the other hand under the base for support.
- If you cannot carry a microscope alone, request assistance to avoid injury and prevent damage to the equipment.
- Whenever transporting a microscope, ensure the cord is not dangling loosely but is tied up securely with a plastic tie. Ties can be found in the bottom drawer of the cabinet where the microscopes are stored.

3. Diagram of a Microscope

Please Familiarize yourself with the parts of a microscope:



4. Instructions

Note: There are different microscope brands in the lab. The images may not reflect the specific microscope you are using but will still give an overall idea of how the parts look.

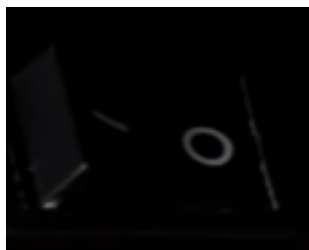
4.1 Setting up the Microscope

1. Retrieve the microscope from the cabinet where microscopes are stored, carrying the microscope with one hand under the base and the other hand holding the microscope arm.
2. Place the microscope on a lab table within arm's reach of a power outlet under the tabletop.



3. Remove the plastic tie from the microscope cord, and plug the cord into the closest power outlet.
4. Locate the on/off switch on the top right side of the base, and turn the microscope on by pushing the side with the circle down.

Note: When on, the circle on the button is down or in, and the dash on the button is up or out as shown below.

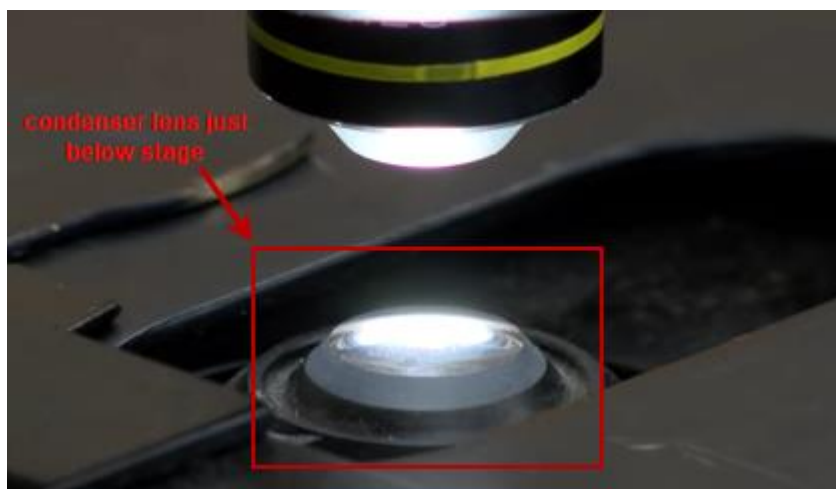


5. Check the ocular lenses, and turn lenses until the number 64 lines up with the white lines at the base of the lenses.

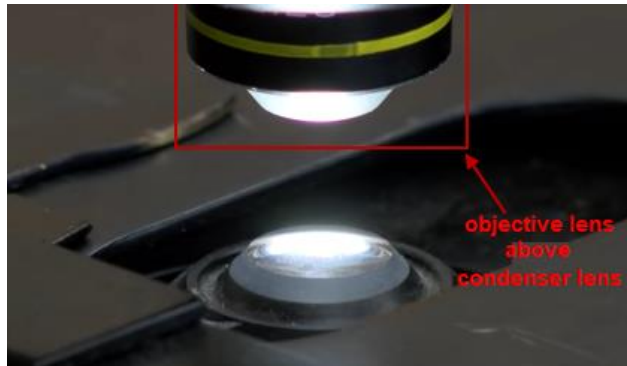


6. Ensure the condenser lens is just below the stage, turning the condenser focus dial to move the stage if needed. See microscope labeling in section 3 to locate the condenser focus dial.

Note: The first image below also shows a condenser focus dial.



- Put the objective lens on low power by rotating the objective lenses until the lens with the lowest magnification is above the condenser lens.



- Move the stage to its highest position by turning the **Coarse Adjustment** dial until the stage is directly under the objective lens.



- View the stage through the ocular lenses, and lower stage slowly until the image is recognizable.

Note: Once an image is recognizable (no matter how sharp), you should only adjust the focus using the **Fine Adjustment** knob (shown in following image).



- Adjust the light (**Illumination** on diagram) to the medium or medium high range using the **Brightness Adjustment** dial. The light can be adjusted later to improve the image if needed.

Note: The dial on the base will vary in location and color among different microscopes, but it will look like a wheel as shown in following image:



4.2 Using the Microscope

1. Place the specimen to view on a microscope slide.
2. Pull the clip opener towards you with one hand to open the clips on the stage, and slide the microscope slide between the clips. See the following image of a slide between clips.



3. Use the **Stage Control** knobs (shown in following image) to center the specimen on the slide over the condenser lens.



4. Start with the lower magnification objective lens (4x) first and the stage at its highest position.

Note: The microscope should already be on the lower objective lens as instructed in a previous step.

5. Look through the ocular lenses, and focus on the specimen.
6. Ensure the specimen is centered in the field of view.
7. Move to the next highest objective lens (10x) and refocus.

Note: The specimen should be nearly in focus and only the fine focus knob (the following image) is necessary to fine tune the focus.



8. Center the specimen again, and move to the highest power lens (40x).
9. Center the specimen again, and make any necessary notes for what is observed.

5. Storing the Microscope

1. Turn off the microscope, and unplug it.
2. Wrap the cord back up, and secure it with a plastic tie.
3. Retrieve a Lysol disinfectant wipe from the tall black cabinet in the back of the room.
4. Wipe the microscope's stage thoroughly, and place the microscope back in the cabinet.

6. References

Anderson, Haley. *Parts of a Compound Microscope*. MicroscopeMaster. Image retrieved April 2, 2020, from <https://www.microscopemaster.com/parts-of-a-compound-microscope.html>.

BIOLOGY 10 - Basic Microscope Setup and Use. (2019, April 10). YouTube. Retrieved April 2, 2020, from <https://www.youtube.com/watch?reload=9&v=SUo2fHZaZCU>.