**LAB 1-7: OBSERVING MOSS CELLS AND CHEEK CELLS**

**SELF ASSESSMENT RUBRIC** NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_ BLOCK:\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **4** | **3** | **2** | **1** |
| **PAGE SET-UP/ PURPOSE/**  **MATERIALS/**  **PROCEDURE** | Format is correct. All present, neat, using dark, blue or black ink. | All/ most present, using dark, blue or black ink/or pencil. | Some filled in, using dark, blue or black ink/or pencil. | Most missing. |
| **DATA/**  **OBSERVATIONS/RESULTS:** | Diagrams are accurate, neat, and completed in pencil. Cell parts are labelled. | Diagrams are neat and complete. Labels may or may not be present. | Diagrams are neat and/or incomplete. | Diagrams are missing. |
| **DISCUSSION**  **QUESTIONS** | All Analyze questions are answered neatly and accurately in full sentences using dark, blue or black ink. | Most questions are answered accurately, using dark, blue or black ink/or pencil. | Some questions are answered accurately, using dark, blue or black ink/ or pencil. | Many inaccurate/missing answers. |
| **CONCLUSION** | Conclusion neatly and accurately refers to the Conclude and Apply questions in full, complete sentences, using dark, blue or black ink. | Conclusion refers to most of the Conclude and Apply questions, using dark, blue or black ink/or pencil. | Conclusion stated but does not refer to the Conclude and Apply questions, using dark, blue or black ink/or pencil. | Conclusion is missing. |
| **SAFETY AND SKILL** | Student is on task and follows procedures safely. Much skill is demonstrated in the use of the microscope. All materials are cleaned up and put away. | Student requires minimal reminders to be on task and follow procedures safely. Some skill is demonstrated in the use of the microscope. All/most materials are cleaned up and put away. | Student requires many reminders to be on task and follow procedures safely. Satisfactory skill is demonstrated in the use of the microscope. Most materials are cleaned up and put away. | Student requires many reminders to be on task and follow procedures safely. There is a lack of skill demonstrated in the use of the microscope. Materials were not cleaned up or put away. |

**TEACHER ASSESSMENT RUBRIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **4** | **3** | **2** | **1** |
| **PAGE SET-UP/ PURPOSE/**  **MATERIALS/**  **PROCEDURE** | Format is correct. All present, neat, using dark, blue or black ink. | All/ most present, using dark, blue or black ink/or pencil. | Some filled in, using dark, blue or black ink/or pencil. | Most missing. |
| **DATA/**  **OBSERVATIONS/RESULTS:** | Diagrams are accurate, neat, and completed in pencil. Cell parts are labelled. | Diagrams are neat and complete. Labels may or may not be present. | Diagrams are neat and/or incomplete. | Diagrams are missing. |
| **DISCUSSION**  **QUESTIONS** | All Analyze questions are answered neatly and accurately in full sentences using dark, blue or black ink. | Most questions are answered accurately, using dark, blue or black ink/or pencil. | Some questions are answered accurately, using dark, blue or black ink/ or pencil. | Many inaccurate/missing answers. |
| **CONCLUSION** | Conclusion neatly and accurately refers to the Conclude and Apply questions in full, complete sentences, using dark, blue or black ink. | Conclusion refers to most of the Conclude and Apply questions, using dark, blue or black ink/or pencil. | Conclusion stated but does not refer to the Conclude and Apply questions, using dark, blue or black ink/or pencil. | Conclusion is missing. |
| **SAFETY AND SKILL** | Student is on task and follows procedures safely. Much skill is demonstrated in the use of the microscope. All materials are cleaned up and put away. | Student requires minimal reminders to be on task and follow procedures safely. Some skill is demonstrated in the use of the microscope. All/most materials are cleaned up and put away. | Student requires many reminders to be on task and follow procedures safely. Satisfactory skill is demonstrated in the use of the microscope. Most materials are cleaned up and put away. | Student requires many reminders to be on task and follow procedures safely. There is a lack of skill demonstrated in the use of the microscope. Materials were not cleaned up or put away. |

**/20 = /10**

Lab 1-7: Observing Moss and Cheek Cells Name:

Date:

Block:

Purpose: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Materials:

* 1 microscope
* 2 microscopic slides
* 2 cover slips
* 1 lens paper
* 1 pair of tweezers
* 1 medicine dropper
* 10 mL of Water
* 1 sample of moss
* 1 bottle of Iodine solution
* 1 paper towel
* 1 flat toothpick
* 1 bottle of Methylene blue solution

Procedure:

**Part 1: Moss Cell**

1. Pick up your microscope and your materials you will need to make a wet mount slide
2. Clean your slides with lens paper before you begin. Prepare a wet mount slide by putting a drop of water on the slide.
3. Using tweezers, take a small leaf of moss and place on the water droplet on the slide
4. Place a coverslip overtop of the moss and observe the leaf under low, medium and high power.

**Part 2: Cheek Cell**

1. Put a drop of methylene blue on a slide. Caution: methylene blue will stain clothes and skin.
2. Gently scrape the inside of your cheek with the flat side of a toothpick. Scrape lightly.
3. Stir the end of the toothpick in the stain and throw the toothpick away.
4. Place a coverslip onto the slide
5. Switch to low power and observe the cells. Cells should be visible, but they will be small and look like nearly clear purplish blobs. If you are looking at something very dark purple, it is probably not a cell
6. Once you think you have located a cell, switch to medium or high power and refocus. (Remember, do NOT use the coarse adjustment knob at this point)

Observations:

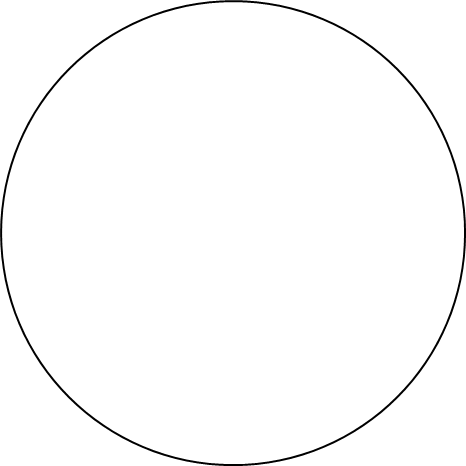
**Part 1. Moss Cell**

**Diagram 1: Moss Cell under Diagram 2: Moss Cell under**

**Low Power Medium or High Power**

**Part 2: Cheek Cell**

**Diagram 1: Cheek Cell under Diagram 2: Cheek Cell under**

**Low Power Medium or High Power**

Discussion: *(answer in full sentences)*

1. Was there any difference in the appearance of the plant and cheek cells? If so, explain. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What was the most difficult step in preparing your slides? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Why is the purpose of using methylene blue for the cheek cells? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Conclusion: *(Write a paragraph that includes the following: What were you doing in this activity? Why were you doing this? What did you observe in the onion and cheek cells? What is one thing you learned from this investigation? )*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_