TITLE:
Laboratory Safety and Microscope

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DCPS STANDARDS:
7.1.: Scientific progress is made by asking relevant questions and conducting careful investigations. As a basis for understanding this concept, and to address the content in this grade, students should develop their own questions and perform investigations. **2.** Explain why it is important in science to keep honest, clear, and accurate records.

7.4.: All living things are composed of cells, from just one to many quadrillions, whose details usually are visible only through a microscope. As a basis for understanding this concept: **3.** Explain that in those cells that contain a nucleus (*eukaryotic* plant and animal cells), the nucleus is the main repository for genetic information.

GOALS:

Activity One:

1. Students will understand how to use a microscope.
2. Students will understand how to describe cells using the microscope.

Activity Two:
1. Scholars will learn the Laboratory safety rules.
2. Scholars will understand microscopes and what the parts are named.

OBJECTIVES:

Activity One:
1. Scholars will be able to describe what real cells look like by viewing them under the microscope.
2. Scholars will use lab worksheets on the microscope.

Activity Two:
1. Scholars will perform blood typing using “safe” blood and antibody solutions.
2. Scholars will predict blood types by analysis of their data

INTRODUCTION: (GLOBAL PREREQUISITE KNOWLEDGE)

Cell City Poster Rubric?

Cell Vocabulary Practice
Laboratory Safety Contract
Microscope
Microscope Drawing

ESSENTIAL QUESTIONS:

- Activity One: What is a microscope? How do we use a microscope?
- Activity Two: What are lab safety rules? Why do we use and have lab safety rules to follow?

GLOBAL RATIONALE:

This activity is designed to have students become familiar with how microscope work and show the parts of a cell. Through discussion, modeling and games you can explain how the microscope works and how lab safety is used.
Understanding the mechanism of antibodies and antigens and their relationship to blood types serves as a basis for understanding many of the immunological health issues that plague our society.

RESEARCH ACTIVITIES:

- **Activity One: Lab Safety**
- **Activity Two: Microscope**

GLOBAL EVALUATION AND ASSESMENT:

- Lab safety and Microscope quiz.
- Mad about microscope quiz.
- How do microscopes work
- Using and caring for microscopes.
- Microscope parts and drawing
- Laboratory safety quiz.