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| **Determining Soil Texture and Permeability** |

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| CATEGORY  | **4**  | **3**  | **2**  | **1**  |  |  |
| **1-Station Cleanup (after the lab is completed bring rubric to be signed)** |  | 4 |  |
| **2-Question/Purpose****What is the purpose of this lab**  | The purpose of the lab or the question to be answered during the lab is clearly identified and stated.  | The purpose of the lab or the question to be answered during the lab is identified, but is stated in a somewhat unclear manner.  | The purpose of the lab or the question to be answered during the lab is partially identified, and is stated in a somewhat unclear manner.  | The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant.  | 4 |  |
| **Procedures**  | None required for this lab report |  |
| **3-Activity 1: Describing Clay, Sand, and Silt for**1. **Color**
2. **Smoothness**
3. **Grittiness**
4. **Ability to form ribbon**
5. **Ribbon length**
 | Report illustrates an accurate and thorough understanding of scientific concepts underlying the lab.  | Report illustrates an accurate understanding of most scientific concepts underlying the lab.  | Report illustrates a limited understanding of scientific concepts underlying the lab.  | Report illustrates inaccurate understanding of scientific concepts underlying the lab.  | 4 |  |
| **4-Table 2****Identifications 1 and 2** | Three lines intersect and soil texture identified  | 1 component missing | 2 components missing | 3 or more components missing | 4 |  |
| **5-Table 2****Identifications 3,4, 5** | Three lines intersect and soil texture identified  | 1 component missing | 2 components missing | 3 or more components missing | 4 |  |
| **6-Data Collection Part 1:****Soil Texture by Sedimentation****Class Averages** | Complete the first data collection chart – your Group number will be assigned to you, indicate your group number by placing an asterisk next to your group number. Calculate the average of the samples A, B, and C for the class and record data.  | 4 |  |
| **7-Calculations – Individual Samples** **A, B, and C** | Complete all calculations – once completed you will enter your data on the board  | 4 |  |
| **8-Soil Determination by Sedimentation****Individual Identification****A, B, C** | Three lines intersect and soil texture identified  | 1 component missing | 2 components missing | 3 or more components missing | 4 |  |
| **9-Class Average and Identifications** **A, B, C** | Three lines intersect and soil texture identified  | 1 component missing | 2 components missing | 3 or more components missing | 4 |  |
| **10-Hypothesis** | Prediction uses the data collected to formulate a hypothesis to prediction which samples will be the most and least permeable along with an educated guess to why these predictions were made | 4 |  |
| **11-Data Collection Part 2:****Soil Permeability** | Complete the second data collection chart – your Group number will be the same as Data Collection Part I, indicate your group number by placing an asterisk next to your group number.   | 4 |  |
| **12-Safety**  | Lab is carried out with full attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual.  | Lab is generally carried out with attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual, but one safety procedure needs to be reviewed.  | Lab is carried out with some attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual, but several safety procedures need to be reviewed.  | Safety procedures were ignored and/or some aspect of the experiment posed a threat to the safety of the student or others.  | 4 |  |
| **13-Conclusion****Questions** | Report illustrates an accurate and thorough understanding of scientific concepts underlying the lab | Report illustrates a limited understanding of scientific concepts underlying the lab. | Report illustrates inaccurate understanding of scientific concepts underlying the lab. | The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant | 4 |  |
| **14-Conclusion****Questions** | Report illustrates an accurate and thorough understanding of scientific concepts underlying the lab | Report illustrates a limited understanding of scientific concepts underlying the lab. | Report illustrates inaccurate understanding of scientific concepts underlying the lab. | The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant | 4 |  |
| **15--Conclusion****Questions** | Report illustrates an accurate and thorough understanding of scientific concepts underlying the lab | Report illustrates a limited understanding of scientific concepts underlying the lab. | Report illustrates inaccurate understanding of scientific concepts underlying the lab. | The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant | 4 |  |