**Unit 3 Notes/Activity: Soil Properties Stations**

**Station 1a: Particle Size**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Action:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Gravel | Sand | Silt | Clay |
| Relative Size |  |  |  |  |

**Station 1b: Texture**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Action:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Sand | Silt | Clay |
| Texture |  |  |  |

**Station 2:**  **Porosity**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Action:

|  |  |  |
| --- | --- | --- |
|  | Sand | Gravel |
| Relative Particle Size |  |  |
| Amount of Water Added |  |  |
| Relative Porosity |  |  |

**Station 3:**  **Permeability**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Action:

|  |  |  |
| --- | --- | --- |
|  | Gravel | Clay |
| Relative Speed of Water |  |  |
| Relative Permeability |  |  |

**Station 4: Holding Capacity**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Action:

|  |  |  |
| --- | --- | --- |
|  | Gravel | Clay |
| Relative Speed of Water |  |  |
| Relative Holding Capacity |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **Particle Size** | **Porosity**  **(Aeration/Air space)** | **Permeability**  **(Water drainage)** | **Water/Nutrient Holding Capacity** |
| Sand |  |  |  |  |
| Silt |  |  |  |  |
| Clay |  |  |  |  |

**Follow Up:** Complete the chart below using the activity data to guide you. Rank each of the following using comparative terms (high, low, big, small, etc.)

**Practice:** Draw circles showing the relative particle sizes in each of the boxes, and then compare their properties using relative terms (big, small, high, low, etc).

**Sand Silt** **Clay**

**Size: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Size: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Size: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Texture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Texture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Texture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Porosity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Porosity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Porosity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Permeablity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Permeablity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Permeablity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Holding Capacity: \_\_\_\_\_\_\_\_\_\_\_\_\_ Holding Capacity: \_\_\_\_\_\_\_\_\_\_\_\_\_ Holding Capacity: \_\_\_\_\_\_\_\_\_\_\_\_\_**