**SOIL TESTING**

In order to test your soil for phosphorus, potash, and nitrogen, you must first complete the following steps: (**pH test can be done with multimeter**)

* Fill a beaker with a 1:5 ratio of soil to water. Example: 100mL soil to 500mL of water.
* Stir the soil and water together well, for at least a minute until it is well mixed.
* Take your sample and place it on a back table **MAKE SURE IT IS LABELED FOR SOIL TYPE AND NAMES OF GROUP MEMBERS**
* Let the soil settle out overnight
* After your soil has settled out, grab a soil testing kit and the appropriate, colour corresponding capsule.
* Make sure the testing kit is clean
* Fill the test and reference chambers to the “fill” mark on the chart with the solution from your soil sample. **TRANSFER ONLY LIQUID, NOT SOIL**
* Holding the capsule over the test chamber, open the correct colour capsule and pour powder into test chamber.
* Place cap on and make sure it is sealed. Shake thoroughly
* Allow color to develop in the test chamber for 10 minutes
* Compare the colour of the solution in the test chamber to the colour chart.

1. **When a soil test kit becomes available**, perform 2 tests on your soil layers for the following factors: Fill in the results in the table below:  
   - List the soil types you retrieved in the darkened boxes

- List the results of each test for each soil type below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Results for Each Soil Type found** | | | |
| **Test** |  |  |  |  |
| **pH Test** |  |  |  |  |
| **Phosphorus (P) Test** |  |  |  |  |
| **Potash (K) Test** |  |  |  |  |
| **Nitrogen (N) Test** |  |  |  |  |

1. After you have finished your testing and have returned the kits, answer the following questions:
   * Which samples were acidic? Which were basic?
   * Do you think the acidity (how acidic) or basicity (how basic) of the soil will affect the quality of the soil? List 3 ideas on how soil that is too acidic or basic might affect quality.