

Option Four: Soil and Water Testing

Environmental issues pervade our culture today. The quality of our water and soil should be of great concern for us all. This project will serve two purposes – it will acquaint the student with the procedures for testing soil and water for specific substances and allow them to draw conclusions about the make-up of these samples based on their geography.

Supplies:

Soil Test Kit

Water collection vessel

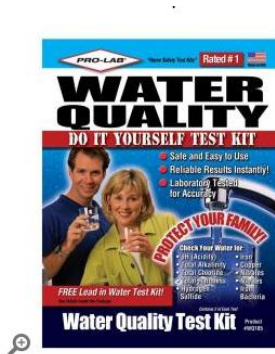
Water Test Kit

Soil collection vessel

Safety Goggles/Safety Glasses

Shovel

The kits above are available at the high school on a first come first served basis or they can be purchased at many home improvement centers. Below are the images of the kits that will be provided.



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PRO-LAB Do-It-Yourself Water Quality Test Kit

Model # WQ105 Store SKU # 758769

★★★★★ (10) | [Write a Review](#) +

\$9.98 / each

7 In Stock at Marble Falls #514
Aisle **BW** Bay **017**
[\(change pick up store\)](#)

PRODUCT SOLD : In Store Only



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Ferry-Morse 40 Test Soil Test Kit

Model # 920 Store SKU # 852580

★★★★★ (1) | [Write a Review](#) +

\$16.98 / each

PRODUCT SOLD : In Store Only
Item cannot be shipped to the following state(s): AK, GU, HI, PR, VI



Procedure

Soil Testing

1. For this project you will need to pick up and sign out test kits and safety glasses from the high school office. These kits need to be returned when you turn in your project. You may purchase your own kits and or glasses at many home improvement stores as mentioned above.
2. Select 5 locations for soil testing. Choose locations that are easily and legally accessible. Be sure to ask permission to carry out soil tests on any soil on private property. Remember no means NO!
3. At the selected locations gather the amount of soil indicated on the test kit; record the gps data from your phone as well as a description of the location (ex. top soil from my front yard at 1033 Wright St.).
4. Carry out the tests as directed in the kit. Be careful to follow ALL safety precautions and discard all materials as directed.
5. Record all the test results.
6. Repeat steps 3-5 for the other 4 locations.

Water Testing

1. Select 5 locations for water testing. You need to have 2 sites in still water (like a pond or tank) and 2 sites in moving water (stream, creek or river). The fifth site is up to you. Again be sure it is acceptable for you to be on the property to carry out water testing.
2. At the selected site collect the amount of water indicated in the test kit, record the gps data from your phone as well as a description of the location (see example above)
3. Carry out the tests as directed in the kit. Be careful to follow ALL safety precautions and discard all materials as directed.
4. Record all the test results.
5. Repeat steps 2-4 for the other 4 locations

Data Analysis

1. Create 2 poster sized data tables showing the test results and locations of your tests.
2. On the poster, in addition to the data tables, write a conclusion paragraph about your results, any trends you observed during testing and what you learned during this exercise.