STREAMS

# SITE SAMPLE STUDY

## FIELD WORK GUIDELINES

OR

**Note**: This manual is to be used if you are doing the Site Sample Study.

The Site Sample Study can be done if you are using any of the following High School Biotechnology Kits:


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# SITE SAMPLE STUDY
## Field Work Manual

 **OR** 

### Introduction

Our field manual was created with the purpose of providing safety guidelines and a step by step guide for students to collect and analyze scientific data from various sites.

This field manual should be used in conjunction with the '*Site Sample Study Journal*' that the student groups need to complete.

### Further Safety Considerations

Arriving at the Site: Always get permission or notify those individuals who own or are responsible for the site that your group is there to acquire samples.

Supplies and Equipment**:** Ensure your group have all of your supplies and equipment before acquiring the samples. Be careful when using equipment or supplies and follow instructions.

Health and Safety: If your group arrive at the site and it poses a risk to your health and safety, do not proceed further. Contact your educator if there are any issues or concerns when going to these sites. If possible, have the educator choose another site or your group can choose their own site.

First Aid: Always carry a first aid kit

Cell Phone: Also carry a cell phone if available.

Whereabouts: Always let someone know where you will be.

### Equipment and Supplies Checklist (per Group)

Note: The checklist will be dependent on the type of samples you are acquiring and the biotechnology kit you will be using. Feel free to bring further supplies or equipment as you deem necessary.

Checklist:

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|---|---|---|
| 1 to 2 Tweezers | 3 to 5 Small Test Tubes with Rubber Stoppers | 1 to 2 Spoons |
| 1 Measuring Tape | 5 to 10 Rubber Gloves | 1 Ruler |
| 1 Smartphone with Camera | 1 Small Container to store the Sample(s) | 1 GPS or related item |

### Information on Sampling

When should you sample?

You should be able to sample anytime from April to October. Be sure the weather is favourable (i.e. clear skies or variable clouds) with full visibility (i.e. no fog). If you are planning to monitor a particular site, it is best to collect the sample(s) at the same time each year (i.e. May 2018, May 2019, etc.).

Where should you sample?

The locations to collect the sample(s) should be discussed beforehand between the class and educator. Each location should also be cleared with the appropriate institution(s) if the sites are in areas that are currently being studied, leased, managed, or owned by that particular institution(s).

There should also be thought on health and safety. Site conditions which can pose a risk such as pollution, high water levels, and steep areas should be avoided. Also be sure to follow any safety signs and guidelines at the site(s) you will be visiting. Some sites may require safety wear such as boots or construction vests. Contact the appropriate individuals before completing this activity to ensure everyone is properly prepared.

The site itself should be an area where you can easily acquire a sample or samples with minimal time.

At the Site(s):

The site itself does not require any special preparation before acquiring the sample(s). The sample(s) collected should be as much as possible in its natural state. However, depending on which biotechnology kit you are using, you may need to do extra preparation of the sample(s). Be sure you look at the "Preparation" handout in each of our kits for further details in what you need to do for the sample(s) collected. You can also contact us through our website (Contact Us) for further information.

Remember to avoid any areas that appear unsafe. Follow the safety signs and guidelines at the site(s) you go to.

Collecting the Sample:

When you collect your sample(s), dig a bit under the ground or scoop just under the water level to collect your sample(s). Try to avoid as much as possible any direct contact with the water or soil (i.e. do not step on or bury your hands on that particular area where you sample) as it may contaminate the sample and compromise your experiment.

Place your sample(s) in the test tube(s) and label them (i.e. sample number, location of the sample, date).

## After Collecting the Samples

Once the sample(s) are collected, the 'Site Sample Study Journal' should be completed and the sample(s) submitted to the educator for preparation for the lab experiment using one of the biotechnology kits.