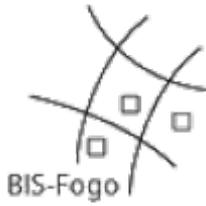


# Activity 05: Field and laboratory experiment

## Field study and laboratory experiment



**Objective:** Experiencing and describing the environment as well as getting to know the difference between field study and laboratory experiment.

**Learning outcomes:** Learners are able to describe and analyse structures of space with their own words as well as to differentiate between field study and laboratory experiment.

**Previous knowledge:** There's no prior knowledge required.

**Duration:** Approx. 40 min.

**Materials / Conditions:** Two open spaces exposed to similar environmental conditions, such as location, temperature, humidity or soil conditions, are required. One of these is used as pasture land for livestock, i.e. goats, cows or chicken, the other one is protected from grazing cattle.

**Methods / Techniques:** Observing, describing, reasoning

**Learning subject:** Biodiversity / Module 3: Collection and Analysis of Biodiversity Data / Level: First contact

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### Introduction:

There are two open spaces located in front of us. Livestock is grazing on one of them while the other is protected from human or animal influence. These two open spaces are the basis of our experiments. We differentiate between two types of experiment: On the one hand there's the open space that exists without human interference, i.e. through pasture farming. This area is left to grow under natural conditions - which is called field study. On the other hand there's the green space which is affected by human pasture farming which makes this green space an artificially-created environment. This is called laboratory experiment.

### Instruction:

- a) Observe and describe what you notice about each of the different open spaces. Hint: Take a close look at the plants as well as the soil. Note down your results.
- b) Compare your observations from both green spaces and note down the differences.
- c) Together with your classmates, discuss the cause of the differences you noticed.
- d) Which green spaces is the field study and which one is the laboratory experiment? Give reasons for your answer.

### Resources:

No material needed.

### Possible results / Results:

- Reporting characteristics and data e.g. the pasture's height. Plant diversity, soil erosion
- The green space without goats is the field experiment as in this case, there's no human interference and the pasture grows under natural circumstances. The green area used as pasture land is the laboratory experiment for it used for pasture farming and therefore an artificially-created space.

### Related activities:

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