

10-11 year old

## The biosphere of plants

### Objectives:

#### Study criteria

- Take the initiative in gathering information to look at a particular issue from various angles

#### Study goals

- Trained research and reasoning skills.
- Practice map reading.
- Practice measuring with a ruler.
- Trains in the use of a microscope.

#### Study criteria

- Demonstrated activity and concerned with the immediate environment and the living conditions of organisms in it.

#### Study goals

- That the students understood the diversity of plants and the necessary conditions for them to grow and thrive.
- That students can actively participate in a discussion about their immediate environment.
- That students train in obtaining information about plants

#### Study criteria

- Use simple concepts from natural sciences in text writing.

#### Study goals

- That the students write a text or report about the work.

### Materials Needed:

- Geothermometer
- Project sheet / Registration sheet.
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### Lesson structure

#### 1 lesson: ca 40 minutes

#### Starting;

Discussion in class about the local environment of the school. The teacher examines with the students a vegetation map of the area around the local area.

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- What do we know about the vegetation around the lake?
- What do we want to know

At the end of the lesson, the teacher reviews how the project will turn out.

#### 1.lesson - Outside

- Students receive a map of the school grounds where the main plants have been marked.
- Students go outside, find the plants and investigate the conditions around one of them: What is the temperature? Is the soil moist? Is it light or shadow? Is the soil nutritious or not?
- Students write down the main things they see and experience.
- Students find a plant with different growing conditions. Take a picture and take a sample home to school.

- Collect soil from different places and examine it under a microscope.

## 2. lesson - inside

- Students do research on a common plant such as e.g. dandelion. You can look at different growing conditions and look at dandelions that grow in sun on one side and shade on the other.
- Measure the stem and record the length.
- Can a conclusion be drawn from the measurement? Does dandelion grow better in sun or shade? If the soil is very dry, dandelions in the sun grow more slowly than dandelions in the shade.
- Create a poster with different plants and different places of growth. It also presents the main research findings

### **Assessment:**

Student self-assessment. Students submit a self-assessment to the teacher on how the work went and whether they knew all the items that were being worked on.

- Teacher goes over K - V - L with students and adds what students have learned