**Script**

**Subject: Science/Biology**

**Target Group: 5th-grade students**

**Topic: AGRICULTURAL LANDSCAPE**

General Objective:

• To indicate changes in the natural environment due to agricultural human activity.

Operational Objectives:

• Describing the characteristics of agricultural landscape.

• Listing the main crops in the Lublin Upland.

• Explaining the term "loess gorge".

• Reading the content of a thematic map.

• Explaining the relationship between environmental elements and agricultural human activity.

Lesson Plan:

I. Introduction

1. Identify the known geographical regions on the map - physical map of Poland,

- administrative division of Poland - population count.

2. Provide characteristics of agricultural landscape:

- gently undulating terrain,

- numerous cultivated fields, meadows, pastures, orchards, plantations,

- low and dispersed buildings,

- low population density.

3. Types of rocks in Poland - film fragment,

- loess, loess gorge.

II. Development

1. Division of agricultural lands in the Lublin Upland

- based on the text, children divide agricultural lands into 3 groups (one colorful A4 sheet per group, listing examples of crops per group).

2. Experiment - making a soil profile - group or individual work

- boards: inhabitants of the soil, key to identifying invertebrates,

3. Animal husbandry in the Lublin Upland - working with an atlas, thematic maps,

- what products are made from leather? (bags, shoes, belts, etc.)

4. Experiment - extracting oil from flax seeds

- conclusions,

- comparing flaxseed oil with olive oil,

- searching the Internet for information about olives and paying attention to the use of olive oil in our daily diet.

5. Young Ecologist's Handbook - how is soil formed? what is soil made of? what is a biocenosis?

6. Loess gorges and Turtle Marshes

- fun facts

7. Corn - nutritional properties,

- students' suggestions for a simple corn dish J

- riddle: "What's the difference between corn and a horse's tooth?"

III. Summary

1. Worksheets: uneven soil and rural landscape - crossword puzzle

2. Field activities - collecting soil samples from different locations (e.g., lawn, forest, meadow, cultivated field) and comparing them - conclusions

Individual Work

1. From a farm to the table - create game cards based on the information in the appendix.

Experiment – Description

1. Experiment - soil profile.

Materials needed: jar, potting soil, sand, small stones, a few leaves and grass.

Execution: place the largest stones at the bottom of the jar (first layer), then a layer of smaller stones, followed by a layer of sand, a layer of potting soil, and finally a layer of leaves and grass.

This is roughly how the layers of soil are arranged. The thickness and color of the individual soil layers depend on the location in the terrain. Soils in the mountains are very poor in humus, while black soils in the Lublin Upland are very good soils, fertile, which is why crops requiring good soil are grown on them.

The experiment can be performed in groups or individually.

2. Experiment - flaxseed oil.

Materials needed: plastic bag, rolling pin, paper towels, rapeseed oil, olive oil, plates.

Execution: spread the plastic bag on the table, place a paper towel (white) on it, sprinkle flax seeds on the towel, and crush the seeds using the rolling pin. Yellow, oily spots will appear on the white paper - this is oil from the seeds. Now compare the color, consistency of rapeseed oil and olive oil. Observations' conclusions.