LESSONS IN GRASS

ONE MONTH, ONE SPOT

How does one place in nature change in one month?

GOAL:

The student regularly measures temperature, humidity, wind speed and light intensity, and observes life (plants and animals) at one chosen spot. Over the course of a month, they record changes and reflect on how conditions affect life in that place.

OBJECTIVES

- The student **observes changes in nature**.
- The student **measures and records phenomena** related to the life of organisms (e.g. changes in size of buds, leaves or flowers; which species appear in spring or prepare for winter in autumn), including using digital technologies.
- The student **experiences long-term outdoor observation** and prepares an output from the month of measuring.
- The **student is outside, moving, and learning through practice**.

TIME: Intro: 30 minutes + 5 minutes every 3 days
AGE: Primary and lower secondary
WHERE: School garden or nearby space
WHEN: Spring or autumn (ideally March or October)
YOU NEED: Measuring tools or DIY versions: Thermometer (for air, soil or water, analog or digital), Hygrometer (or a pine cone), Anemometer (or your own creation - i.e. ribbon on a stick, etc.), Lux meter (or light measuring app), Field guides or apps for identifying plants and animals, String, cups, pine cones, straws and other materials for making DIY measuring tools, Mobile or tablet with measuring apps

Lesson overview:

Long-term observation and measurement give us a chance to discover both fast and slow changes in nature. Spring and autumn are ideal due to major seasonal changes, but the activity can be done anytime. Divide the class into groups, each choosing one specific spot near the school. Every third day, groups return to their chosen place to measure and record data such as temperature, wind, light, humidity, and signs of life (plants and animals). They record the data, draw or photograph the site, and reflect at the end of the month. What changed? Were our predictions correct? What surprised us?

Step 1 - HOW FAST DOES NATURE CHANGE?

Together (ideally outside), discuss what changes in nature across seasons — e.g. budding in spring, birds singing, animals waking from hibernation or preparing for winter in autumn. Choose an accessible area near the school. Divide into small groups, each selecting a specific spot and marking it clearly (with a stick, string, rock etc.).

Groups predict what changes may occur during the month:

- Will temperature increase or decrease?
- Will there be more or less light?
- Will humidity rise or fall?
- Will there be more or less life (plants, animals)?
- What can we measure regularly?
- When is the best time to measure?

⏱ Do your first measurement now (15 minutes), then return every 3 days for 5 minutes during the month.

Step 2 - LEARNING TO MEASURE

Explain how to use each tool or app and let children try them. You can also create some tools together. Emphasise consistency — always measure at the same time and in the same way (e.g. same height for air temperature).

- Temperature (air, soil, water) – use a thermometer
- Wind speed – use anemometer or make your own tool, ribbons/leaves, weathercock
- Light – use a lux meter or mobile app
- Humidity – use a hygrometer or sense it by touch
- Life signs – observe and record plant and animal activity (your knowledge, field guides, mobile apps)

💡 Tip: You can also place a measuring station indoors and compare inside vs outside.

Step 3 - MEASURING AND RECORDING

Each group fills in their worksheet with the first measurement. Then they make a plan: who will return to the spot every 3 days? Observations are written down, drawn, and/or photographed.

💡 Tip: Choose spots close to the school (e.g. on the way in, by the entrance, or in the school garden), so students can quickly go out and measure.

Step 4 - REFLECTION

After one month, meet to share and compare findings. Groups can prepare a simple graph, collage, presentation or video.

Questions to discuss:

- Were our predictions correct?
- What surprised us?
- What was difficult?
- How did the spot change?
- What kinds of life appeared or disappeared?
- What was unique or exciting?
- How well did we measure?
- What would we do differently next time?

If possible, compare findings with broader nature observations in your area.

EVIDENCE OF LEARNING

- The student regularly observed and recorded changes in nature.
- The student used simple or digital tools to measure environmental conditions.
- The student reflected on their data and prepared a summary.
- The student learned through direct experience outdoors.

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WORKSHEET – OBSERVATION TABLE

Goals:

- **Learn to regularly measure** temperature, humidity, wind speed, and light intensity.
- **Observe life** (plants, animals) in one location.
- **Record changes and evaluate** how conditions affect life.

1. DRAW OR DESCRIBE YOUR SPOT:

- Is it sunny or shady?
- Is there grass, water or trees nearby?
- Is it windy or sheltered?

2. OBSERVATION TABLE *(write in the table every 3 days)*

Date	Air Temp (°C/ °F)	Humidity (%)	Wind (low/med/high)	Light (lux)	Life Signs (what did you see?)

3. MEASURING TIPS:

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- **Temperature** – use a thermometer or app
- **Humidity** – use a hygrometer or app
- **Wind** – observe weathercock or trees/grass:
  - Low: leaves gently move
  - Medium: branches sway
  - High: trees bend
- **Light** – use app or estimate: more light = higher value
- **Life** – look for new leaves, flowers, birds, insects...

4. DRAW WHAT YOU SAW THIS MONTH - changes in plants, animals present...

5. AFTER A MONTH – FINAL QUESTIONS:

- When was the most life visible? (Date, conditions)
- When was there the most light? Did it affect plant or animal activity?
- How did temperature and humidity change during the month?
- What surprised you?

FINAL TASK:

Prepare a short presentation about your spot: What did you discover, and how did it change over the month?