Soil Microbiome Data Collection Table (Empty)

Sample ID	GPS Coor.	0h Observ.	8h Observ.	16h Observ.	24h Observ.	32h Observ.	40h Observ.	48h Observ.	Photo Reference	Notes
SMs1										
SMs2										
SMs3										
SMw1										
SMw2										

SMw3										

This table is designed for recording data during the 'Soil Microbiome' experiment. Fill in details for each sampling point, including GPS coordinates, observations, and analysis at 8-hour intervals. Use the Notes column for additional comments or unexpected findings.

*Coor. : Coordinates

**Observ. :Observation

Column Descriptions:

- **Sample ID**: Unique identifier for soil (SWs) or water (SWw) samples.
- **GPS Coordinates**: Location where the sample was collected.
- **Observation Columns**: Space for students to write their observations at each 8-hour interval.
- **Photo Reference**: Space for linking or referencing photos of observations.
- **Notes**: Any additional comments or unusual findings for the sample.

Sub-Notes for Observations:
For the observations, students will primarily focus on the following aspects during their 8-hour interval checks:

1. **Visual Growth**:
    - Appearance of bacterial colonies (e.g., color, shape, size, and distribution on the agar plate).
    - Presence of any fungal growth or unexpected organisms.
2. **Texture Changes**:
    - Surface of the agar plate (e.g., smooth, rough, slimy).
    - Any evident physical changes in the sample.
3. **Color Changes**:
    - Note any shifts in color over time, which could indicate specific bacterial activity or contamination.
4. **Odor**:
    - If allowed and safe, record any unusual or new odors emanating from the sealed agar plates (do not open the plates).

5. **Condensation**:
    - Look for condensation on the lid of the agar plates, as it might indicate increased microbial activity.

How to Use the Table:

- For each time interval, students should observe and record the growth, texture, color, and other parameters under **Observation** columns.
- They can note observations like “White circular colonies, ~1mm diameter” or “Yellowish slime forming on the left side of plate” to describe findings.
- Add any special notes in the **Notes** column, such as unexpected results or environmental influences.

EXAMPLE:

Sample ID	GPS Coor.	0h Observ.	8h Observ.	16h Observ.	24h Observ.	32h Observ.	40h Observ.	48h Observ.	Photo Reference	Notes
SWs1	47.1234, 16.5678	No visible growth; soil particles visible; light brown color	Small white dots forming at edges	Circular white colonies growing (~2mm)	Colonies expanded, faint odor detected	Colonies turning light yellow	Yellowish colonies larger, condensation visible	Colonies covering 70% of the plate, intense yellow color	Photo_1.jpg	Possible contamination from environment
SWs2	47.1250, 16.5680	No visible growth; soil texture intact; slightly damp	No changes observed	Tiny greenish spots near center	Green colonies (~1mm) visible, spreading	Green colonies merging; strong odor detected	Colonies reaching edges of plate	Entire plate covered in green colonies	Photo_2.jpg	Unusual odor noted
SWs3	47.1300, 16.5690	Dry soil; dark brown particles visible	No changes observed	White, fuzzy texture appearing on surface	Fuzzy colonies spreading (~3mm)	Colonies remain fuzzy; no color change	Fuzzy texture disappearing, smooth colonies visible	Smooth colonies covering 50% of plate, light beige	Photo_3.jpg	Likely fungal growth

SWw1	47.2000, 16.5800	Clear water; no visible particles	No changes observed	Few transparent dots visible	Transparent colonies growing (~1mm)	Colonies becoming cloudy	Cloudy colonies merging; no odor	Cloudy colonies covering 60% of plate	Photo_4.jpg	Observation normal

Explanation of Example:

1. **Observation Details**:
    - Students can describe what they see, such as the type of growth (e.g., colonies, fuzziness), any changes in color, and the size of growth over time.
2. **Photo Reference**:
    - Include filenames or references to photos they take for documentation.
3. **Notes**:
    - Any unusual findings, suspected contamination, or other relevant details.