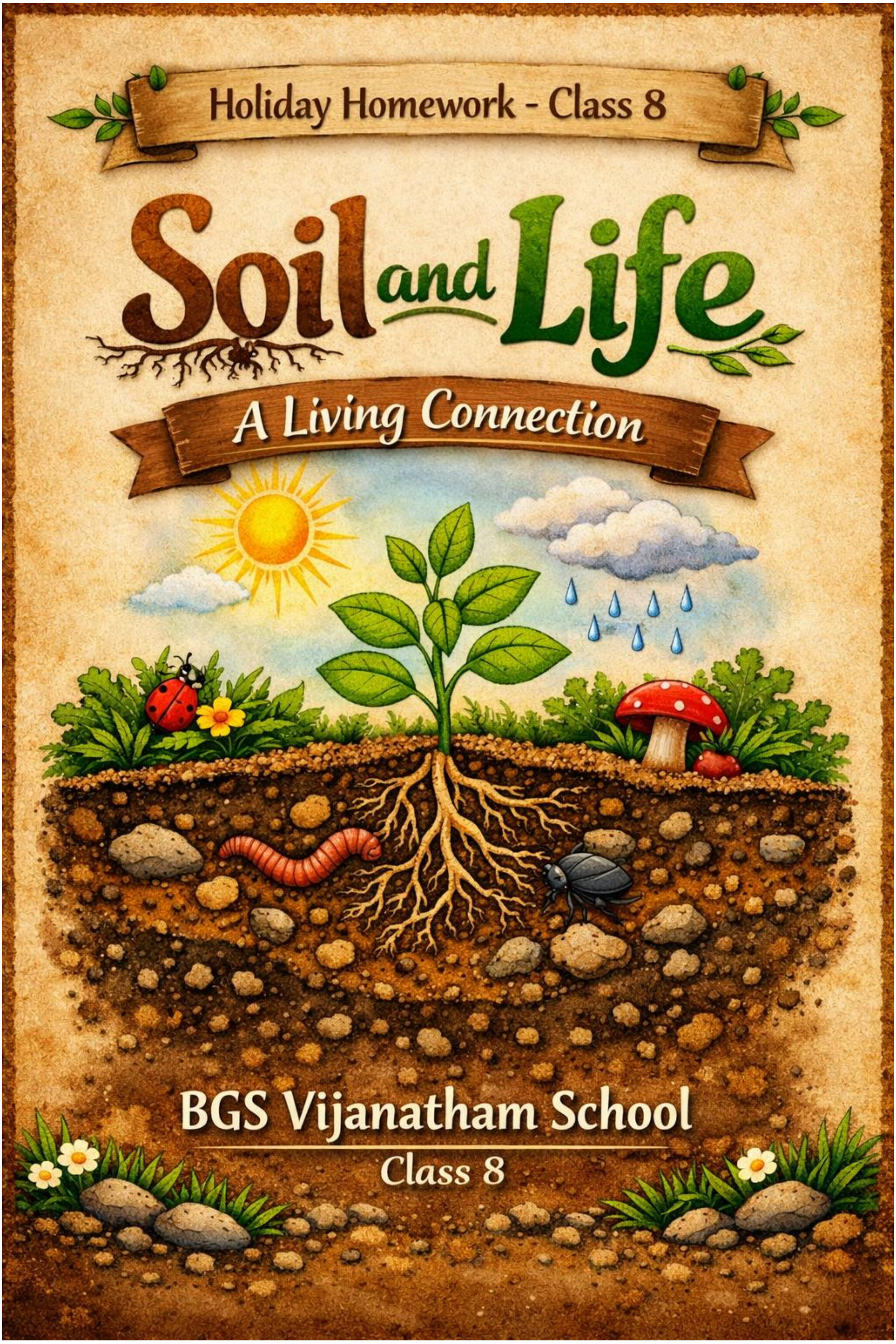

Holiday Homework - Class 8
Soil and Life
A Living Connection
BGS Vijanatham School
Class 8

PROJECT BASED LEARNING (PBL) HOMEWORK

Soil and Life – A Living Connection

STEP: VIII

Beneath our feet lies life's silent miracle — the soil.

It breathes, nurtures, and sustains every seed that grows.

From tiny roots to towering trees, all life begins here.

When we care for the soil, the Earth smiles in return.

It is the heartbeat of nature, a living bond between the planet and all who call it home.

Soil is the foundation of all ecosystems. It supports plants by providing essential nutrients, water and a place for roots to anchor. In turn, plants supply food and oxygen for animals and humans. Soil also hosts millions of microorganisms that recycle nutrients and maintain fertility. Without healthy soil, crops cannot grow, food chains break down, and biodiversity declines. Thus, soil is not just dirt beneath our feet—it is a living resource that sustains life on Earth.

Every student can help by spreading awareness and protecting nature.Soil is the living foundation of our planet, nurturing plants, animals, and humans alike. It provides food, water, and shelter, making it the true lifeline of Earth. Yet, human actions such as deforestation, overuse of chemicals, mining, and careless waste disposal weaken its fertility and structure. Natural calamities like floods, droughts, and earthquakes further disturb the soil, leading to erosion, loss of nutrients, and reduced plant growth. When soil is damaged, life itself suffers — crops fail, ecosystems collapse, and food security declines. Protecting soil means protecting our future, for it is the silent bond that connects all living beings to the Earth.

GUIDLINES For students

Planning & Time Management

- Start your homework early; don’t leave it for the last week.
- Divide the work into small daily tasks to avoid stress.
- Make a timetable balancing study, rest, and recreation.

Presentation & Neatness

- Write neatly in clear handwriting.
- Use proper headings, sub-headings, and margins.
- Label each subject work with Name, Class, Section, and Subject.
- Compile work in a single file with INDEX including Page numbers.

Content & Creativity

- Follow the instructions given for each subject carefully.
- Add diagrams, charts, or pictures wherever possible.
- Keep answers concise, accurate, and well-structured.
- Show creativity in projects (models, drawings, or presentations).

Responsible Habits

- Balance study with outdoor activities and family time.
- Avoid copying directly; try to write in your own words.
- Use resources like books, information and observations responsibly.
- Practice eco-friendly habits (reuse paper, avoid plastic in projects).

Work Submission Checklist

- Complete all work neatly in a single file using ruled **A4 sheets .**
- Include charts wherever data needs to be shown.
- Add tables to organize information clearly.
- Use creative drawings to make your work engaging.
- Keep your file tidy and well-presented.

Learning Objectives:

1.Understand Soil as a Resource

- Recognize that soil supports plants, animals, and human life by providing nutrients, water, and habitat.

2.Identify Soil Types and Properties

- Differentiate between alluvial, black, red, sandy, and laterite soils based on texture, fertility, and moisture retention.

3.Link Soil to Agriculture

- Explain how different soils are suitable for specific crops. (e.g., cotton in black soil)

4.Explore Human Impact on Soil

- Describe how synthetic fertilisers and pesticides affect soil health, fertility, and biodiversity.

5.Develop Environmental Awareness

- Appreciate soil as a living system and suggest ways to protect it (organic farming, composting, afforestation)
- To create awareness about the importance of saving soil and preventing soil erosion through a creative digital poster.

***6.* Awareness of sustainable solutions**

- To inspire responsible citizenship where protecting soil is seen as protecting health, economy, and environment in modern society.
- sustainable solutions — composting, afforestation, organic farming, and eco-friendly waste management.

<u>ENGLISH</u>

<u>Activity1:</u> Reading activity

Read ANY book with given link as:

https://www.sare.org/wp-content/uploads/Farming-with-Soil-Life.pdf

https://www.rvskvv.net/images/EBook_Soil-Science_16.04.2020.pdf

Based on the reading of a book ,Write a summary in 500 words.

<u>Activity2</u>: Vocabulary List:

Choose any 10 difficult words from the book read above and Make a MINI DICTIONARY in this given format

- Word → Meaning → Example with sentence

<u>Activity3:</u> Subject Integration: The students should write a newspaper article on <u>“Importance of Soil”.</u>

<u>Activity4:</u> Creative Writing: Write a slogan or short poem on

“ SOIL CONSERVATION”.

<u>Sample Slogan</u>

“Healthy Soil, Healthy Life”

“Save Soil, Save Earth”

“Soil Gives Life to Every Seed”

<u>Sample Short Poem</u>

“Soil so rich, soil so deep,

Gives the plants their food to keep.

Trees and flowers bloom each day

Because of soil beneath …”

HINDI

1- **पुस्तक पठन एवं शब्दावली संवर्धन:**

(सभी छात्र अपनी कोई भी मिट्टी से संबंधित पुस्तक पढ़ कर उसका कर भी लिख सकते हैं।)

● **मुंशी प्रेमचंद** की प्रसिद्ध कहानी **"पूस की रात"** पढ़िए ।

यह कहानी किसान जीवन, मिट्टी और प्रकृति से जुड़े मानवीय संघर्षों का सजीव चित्रण करती है।

कार्य :

● कहानी को ध्यानपूर्वक पढ़िए।

●कहानी में आए 20 नए शब्द चुनकर उनकी शब्दावली (Vocabulary) तैयार कीजिए और 50 से 80 शब्दों में कहानी का सार लिखिए।

2- **.कल्पनात्मक लेखन:**

विषय: "यदि मिट्टी बोलती..." कल्पना कीजिए कि मिट्टी बोल रही है। वह मनुष्यों से क्या कहेगी?

●इस विषय पर 120–150 शब्दों में एक रोचक अनुच्छेद लिखिए।

3. **कविता लिखिए:** मिट्टी संरक्षण पर 8-10 पंक्तियों की कविता लिखिए ।

4.**आकर्षक स्लोगन (नारा) तैयार कीजिए:**

उदाहरण :

"मिट्टी बचाओ, जीवन सजाओ।"

" मिट्टी हमारे जीवन के लिए क्यों आवश्यक है? "

MATHEMATICS

These are the given below different activities related to Mathematical skills with the given HOLIDAY HOMEWORK theme.

1. Soil Measurement & Data Handling

- Collect soil samples from three different locations (garden, park, roadside).
- Measure the weight of each sample (in grams) and volume (in cm^3) using an empty glass or plastic bottle.
- Calculate the density of each sample using formula: Density= (Mass/Volume)
- Present your findings in a bar graph and write a short observation.

2. <u>Soil Area & Geometry Challenge:</u>

- Imagine you are designing a rectangular vegetable patch in your backyard.
- The patch should have an area of 24 m^2.
- Find three different sets of length and width that satisfy this condition.
- Draw the shapes to scale on graph paper.

3. <u>Soil Erosion & Percentage Loss:</u>

- A farmer has 500 kg of topsoil. Due to erosion, 12% is lost in the first year and 8% of the remaining in the second year.
- Calculate how much soil is left after two years.
- Represent the loss using a pie chart.

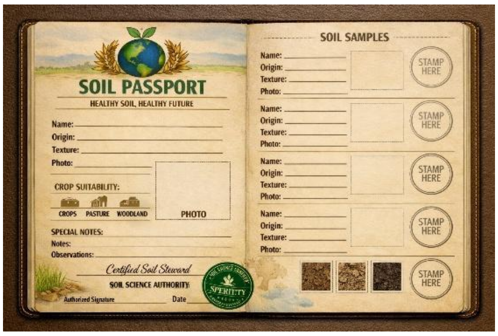
<u>SCIENCE</u>

<u>Chapter: HOW NATURES WORK IN HARMONY</u>

<u>Topic: SOIL PROTECTION AND ECOSYSTEM</u>

1. **<u>Task 1:</u> *“Soil Detective Game”***

   - Collect soil samples from your garden, park, or roadside.
   - Prepare a “Soil Passport” for each sample of soil with its details.
   - Label the sample like Sample A, B, C as per the picture shown here.



2. **<u>Task 2</u>: *“Investigating Soil Health: Plant Growth Experiment”***

   - Plant the same type of seed (e.g., bean or mustard) in the collected soil samples as above.
   - Water equally and observe growth for two weeks.
   - Note differences like plant height and leaf size
   - Write a report on the given topics
     1. How soil quality influences plant growth?
     2. Possible reasons affecting soil quality
     3. List some methods for Soil protection

3. **<u>Task 3:</u>**
   - Upload your observations of a growing plant on www.seasonwatch.in and become a young citizen scientist.

- Also submit a hard copy of your observations to respective science teacher .

4. **Task 4:** **"Human Footprints on Soil "**
Research: To Identify human activities which can harm the soil.
   - Make a poster on a chart covering following topics
     1. Microbes found in soil
     2. Role of microbes in soil fertility
     3. How does human activities impact microbial population

SOCIAL SCIENCE

1.Activity: ***Soil Profile in a Jar* -**

It shows layers and composition.

What you need: Clear waste jar/bottle, soil from your garden, water.

Steps:

1. Fill 1/3 of the jar with soil.

2. Add water until the jar is 2/3 full.

3. Shake hard for 1 minute, then let it sit undisturbed for 24 hours.

4. Observe the layers that form

What you'll see:

Top layer : ______________________________

Middle layer: ____________________________

Bottom layer: ____________________________

Conclusion:

a) How does the soil jar experiment help us to understand the role of organic matter, silt/clay, and sand in soil fertility?
b) Why do farmers test soil before planting?

2. Activity: Threats to Soil

Instructions:

1. Think about the ways in which soil gets damaged or polluted.

2. Write your answers in the table below.
3. Use simple points and examples from daily life

Observation Table: Threats to Soil

Threat to Soil	**Cause**	**Effect on Soil**

Helpful Hints

- Cutting of trees
- Floods and strong winds
- Plastic waste
- Excessive fertilizers and pesticides
- Mining and construction
- Overgrazing by animals

3.Activity :"Save Soil" Awareness Poster

Instructions

1. Students will individually design a poster on the topic:
 "Save Soil, Save Life" with appropriate SLOGAN showing causes of soil degradation and various methods of soil conservation.
2. The students will briefly explain their poster to the class in 1 minute.

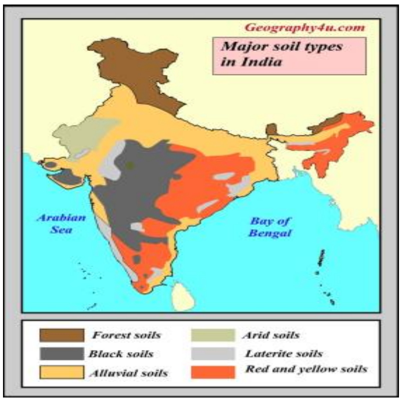
4 Map Activity:

Draw a neat outline map of India on **an A3 sheet.**

Highlight the major soil regions (Alluvial, Black, Red, Laterite, Desert, Mountain).

Use your creativity and colors to represent the regions, following the style shown in the reference picture.

- Rajasthan area → Desert Soil
- Black soil belt in west-central India → Black Soil
- Northern plains → Alluvial Soil
- Peninsular plateau → Red Soil



Easy soil mixes

Sandy soil: sand + a little dry dirt.

Black soil: dark garden soil + a little compost or coal-black powder substitute if allowed.

Red soil: red earth/clay soil, or soil mixed with a little red colored powder.

Clay soil: fine soil with a little water so it becomes sticky and heavy.

Alluvial soil: light brown soil mixed with fine sand and a little silt-like dust.

Laterite soil: reddish-brown soil mixed with a little sand.

<u>COMPUTER</u>

Topic: Soil Conservation

Instructions for the Activity

1. Open Canva and log in with your account.
2. Select Poster template from the design options.
3. Create an attractive and informative poster on the topic "Soil Conservation".
4. Your poster should include:
   - A suitable title/slogan
   - Minimum 2–3 pictures or illustrations
   - Important points about soil conservation
   - Creative colours and neat layout
5. You may include slogans such as:
   - "Save Soil, Save Life"
   - "Healthy Soil, Healthy Future"
   - "Prevent Soil Erosion, Protect Nature"

6. Add at least 5 methods of soil conservation, for example:
    - Tree plantation
    - Terrace farming
    - Avoid deforestation
    - Crop rotation
    - Rainwater harvesting
7. Use readable fonts and proper alignment.
8. Submit the poster at the given mail ID: **bgsvijnatham30@gmail.com**

ART AND CRAFT

Draw and color Lepan painting on glass bottle or any waste jar.

Submission

- Complete all holiday homework carefully
- Submit your work on time at given date 30/06/2026.
- Students must complete their work neatly in a **single file,** using **ruled A4 sheets.**
- Students must Include charts, tables, and creative drawings wherever possible.

PROJECT RUBRICS

Criteria	**Marks**
Research Work	2
Creativity	2
Observation Work	2
Presentation & Neatness	2
Content Quality	2
Total	10