

## Lesson Plan- Soil and its types

**Subject:** Geography **Chapter:** Soil **Topic:** Soil and its types **Class :**7

**Objective:** This plan will enable students to explore various types of soils in India and compare their usage, types of crops grown in it, types of nutrients found, its availability across states, etc. Students will also be able to create a game around mapping of types of soil with various types of crops.

**Approach:** Each group contains around 6-8 members and they are divided in 2 teams one team will work on the spreadsheet part and the other team will work on scratch game making part of the project. Initially both the teams will explore what soil is, its types and how soils are formed, then they will move to application specific activity

### **Student Activity using Spreadsheet and Internet**

- Students will explore what soil is, its types, characteristics and how soils are formed.
- They will create a table in a spreadsheet based on the data points but not limited to : types of soil, states, crops, nutrients, percolation rate, etc.
- They will also search for and add pictures of different types of soil in the table
- They will compare and analyse the availability of the different types of soil across states using a chart or graph and try to explore the reason behind the same.
- What if questions will be put across them to higher order thinking
- They will also collaborate with the other subgroup working with Scratch application to create a game.

### **Student Activity using Scratch and Internet**

- If students are doing scratch for first time then they will explore about sprites and basic movements etc
- They will first design the logic/algorithm of the game including, characters, sprites, points, criteria for game over or win, etc
- Based on the algorithm they will select a soil and create a sprite for the soil.
- They will collaborate with the spreadsheet team for selecting game
- Then will create other sprites and backdrop
- Finally they will code the sprites and develop the game.