

SMART AGRICULTURE



MAURITIUS INSTITUTE OF EDUCATION under the aegis of



MINISTRY OF EDUCATION AND HUMAN RESOURCE



ACKNOWLEDGE

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SOIL CONSERVATION TECHNIQUES

Lesson 1:
Super Soil Saves the Day!



Duration:
35 minutes



Grade:
7



LESSON 1

Lesson Overview

Soil conservation helps protect the soil from being washed or blown away. Simple methods like mulching (covering the soil with leaves or paper), planting cover crops (small plants that protect the ground), using the roots of trees (which hold the soil in place), and contour farming (making curved rows on slopes) all help keep the soil healthy. These techniques stop erosion, keep moisture in the ground, and make it easier for plants to grow.

Lesson Aims

The aim of this lesson is to learn how to take care of soil so plants can grow well and the earth stays healthy.

Lesson Objectives

By the end of this activity, learners will be able to:

1. Understand soil conservation through a story, role-play, and hands-on activity.

Lesson Procedure

1. Warm-up (5 min) – Feel the Soil

Materials:

- Small trays with soil (wet/dry)
- Some with mulch/leaves

Ask:

- *What does the soil feel like?*
- *Is it dry or wet?*
- *Which soil looks happy?*

Feel the soil

Let learners touch and compare. Introduce the word “**conservation**” as “taking care of something.”



Feel the soil

What does the soil feel like?

Is it dry or wet?

Which soil looks happy?



Figure 1: Types of soil



Story Time

Story Time

2. Story Time (10 minutes) – “Super Soil vs The Bad Erosion!”

Story (in simple words)



Once there was a happy garden.
The soil was soft and full of worms.
One day, **rainy erosion** and **windy erosion** came
and started taking away the soil.

But then came the heroes:

- **Mulch blanket**

(covered the soil),

- **Tree Rooty**

(held the soil with roots),

- **Cover crop twins**

(small plants that hugged the ground),

- **Terrace ted**

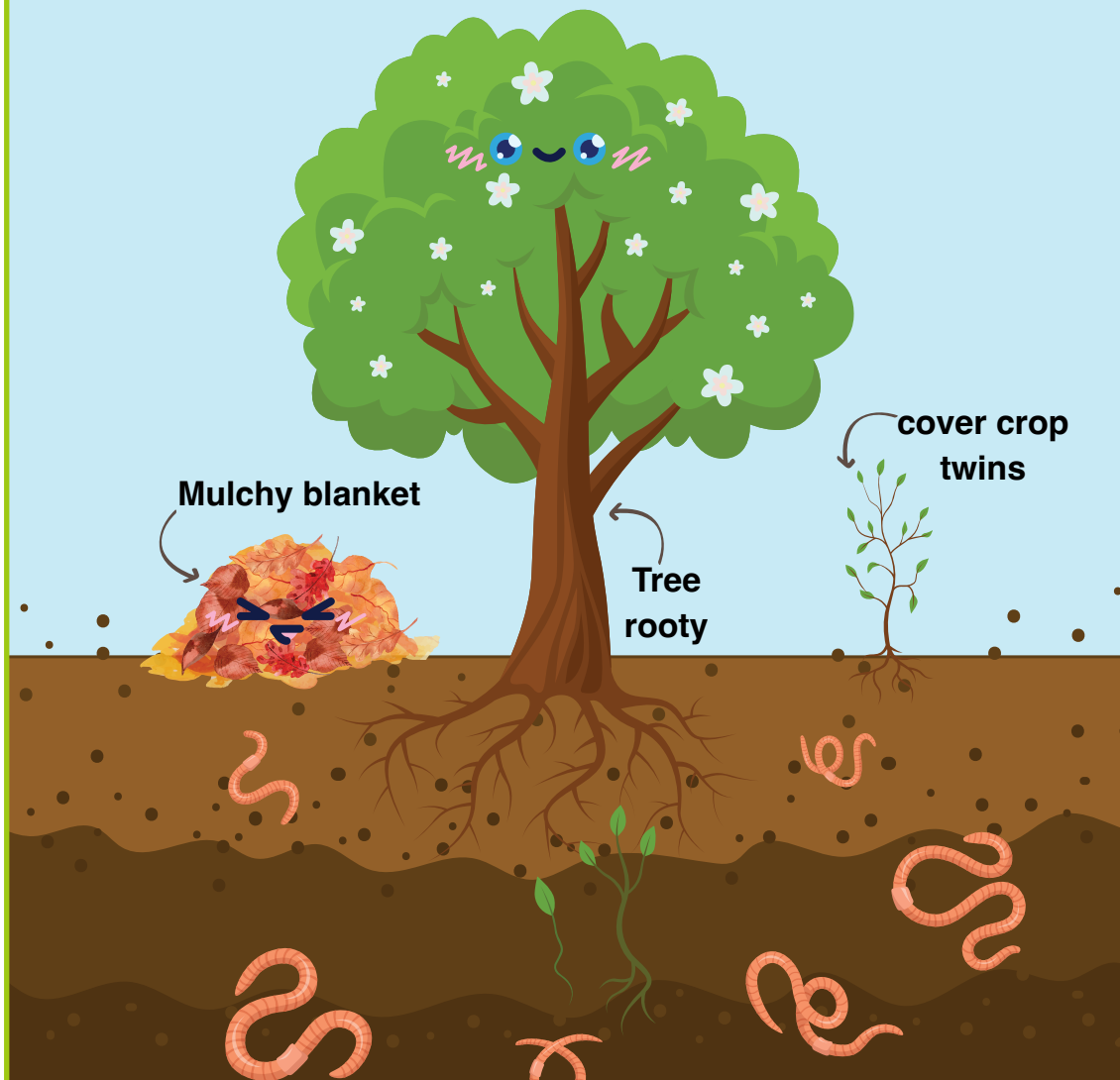
(who built steps on hills).

Together, they saved the soil!”

Use puppets, drawings, or paper masks to act out the story.
Let learners be the characters!



SUPER SOIL VS BAD SOIL EROSION





Protect or Lose the Soil

3. Video Demonstration (5 minutes) – “Protect or Lose the Soil”

Video: <https://youtu.be/OzF0p7pryV0?si=RhNjiPNwmAH05U8d>



Ask:

- Which soil is safe?
- Why do we need to cover soil?



I Protect my Soil

4. Creative Activity (10 minutes) – Make a “Soil Saver Poster”

Materials:

- A4 paper
- Crayons
- Glue
- Leaves
- Scrap paper

Task:

- Draw a plant with a happy face
- Glue mulch (leaves or paper) around it
- Write or trace: “I protect my soil!”



I PROTECT MY SOIL!



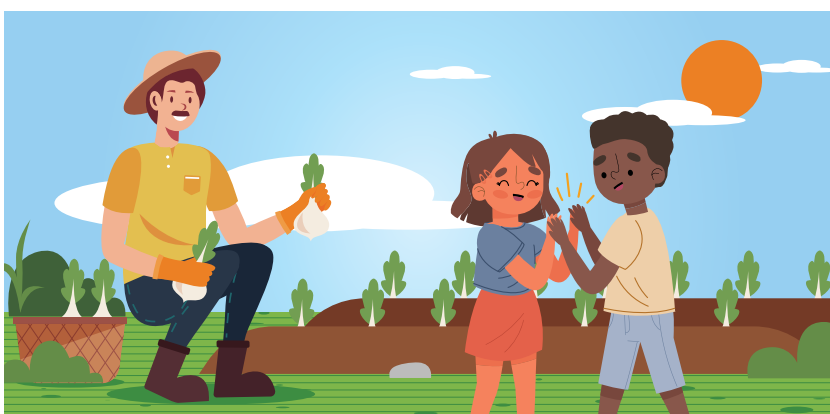
Recap Song

5. Recap Song (5 minutes)

(Sing to the tune of “If You’re Happy and You Know It”)

Lyrics

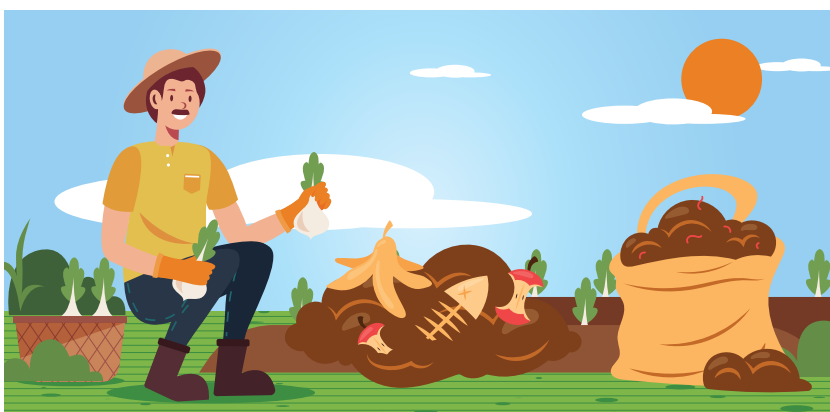
- If you love your soil, cover it! (clap clap)
- If you love your soil, plant on it! (clap clap)
- If you love your soil, add mulch and compost too,
- If you love your soil, care for it!”



**If you love
your soil,
cover it!**



**If you love
your soil,
plant on it!**



**If you love
your soil,
add mulch
and
compost too**

Teacher's Responsibilities

- #1** Introduce the topic using a fun answer clear shirt story about “Super Soil”.
- #2** Guide the story-telling and lead role-play activity (assign characters like Soil, Rain, Plants, Farmer).
- #3** Demonstrate soil conservation techniques (e.g mulching cover crops) with visuals or real materials.
- #4** Support all learners, especially slow learners, by repeating key ideas and using simple language.
- #5** Encourage participation and praise effort during the hands on activity.
- #6** Provide positive feedback Summarize the lesson and help learners reflect on what they learned.

Students' Responsibilities

- #1** Listen carefully to the story of ‘Super Soil’.
- #2** Take part in the role-play by acting out characters or events in the story.
- #3** Join in the hands-on activity, such as adding mulch to soil or arranging cover crops?
- #4** Ask questions if they don't understand something.
- #5** Share one thing they learned at the end of the lesson.

SOIL CONSERVATION TECHNIQUES

Lesson 2:
Mulching for soil conservation



Duration:
35 minutes



Grades:
7





Lesson 2

Lesson Overview

This lesson introduces the concept of mulching in a simplified, engaging way, tailored for very slow learners. The 35-minute session uses visual aids, hands-on practice, and guided discussion to help students understand what mulching is, why it's important, and how to do it. The lesson concludes with a simple assessment to reinforce learning.

Lesson Objectives

By the end of the lesson, learners will be able to:

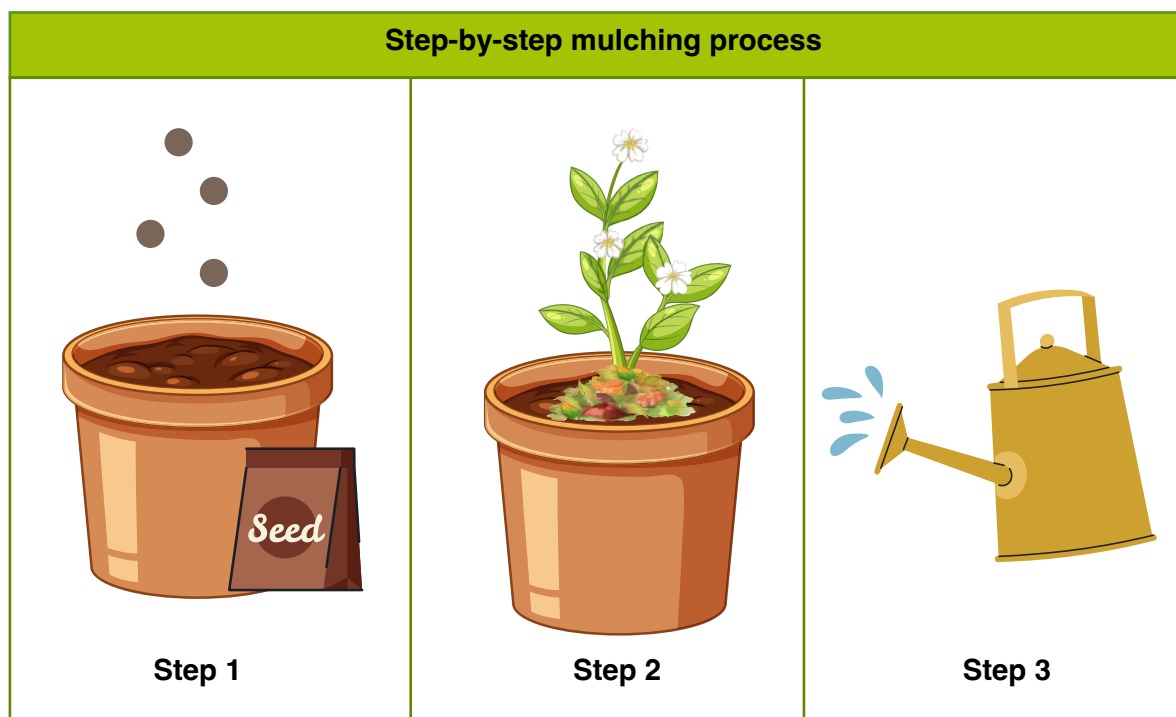
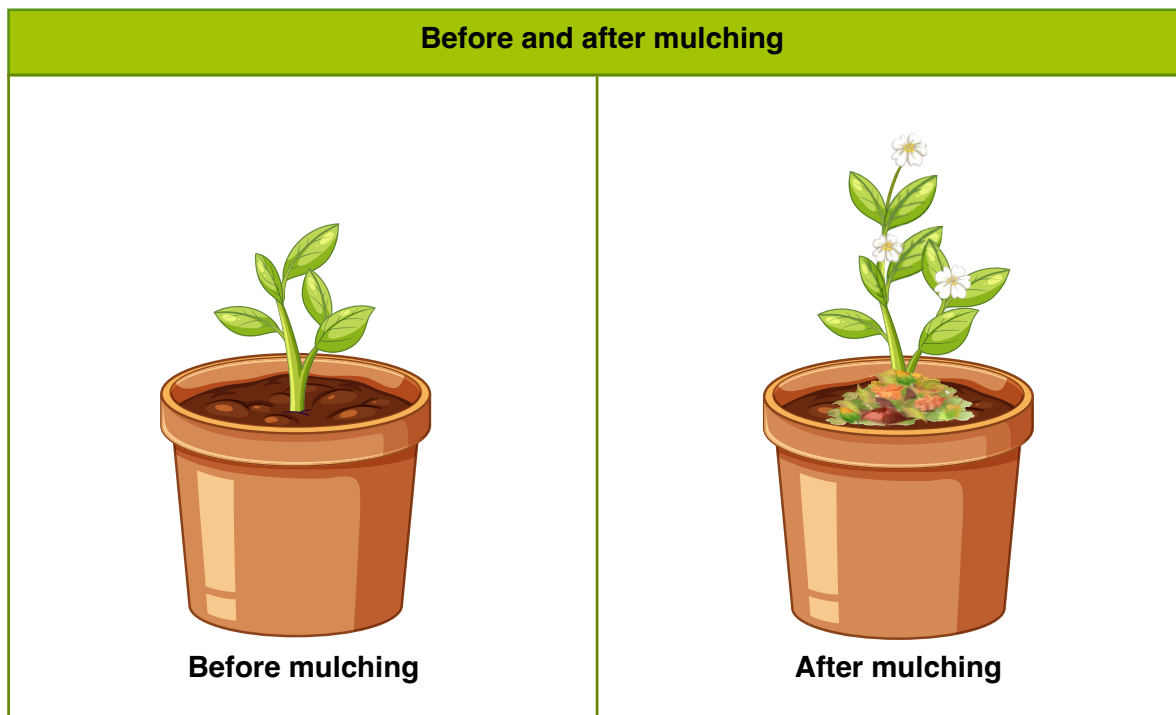
1. Demonstrate understanding of mulching.
2. Identify the importance of mulching.
3. Describe how mulching is carried out.
4. Participate in mulching activity.

Lesson Materials

- Printed or projected pictures of mulching (before and after)
- Dried leaves, straw, grass cuttings (real or images)
- Small Garden area or containers with soil
- Chart paper, markers
- Assessment worksheet

Mulching

The image illustrates the benefits of mulching, the steps involved, and the outcomes of applying mulch to crops





Mulching

Materials for mulching



Dried leaves

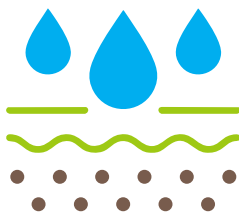
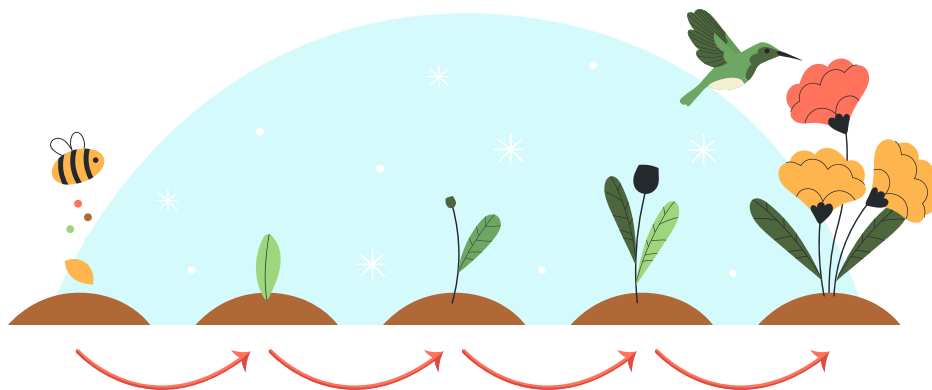


Grass

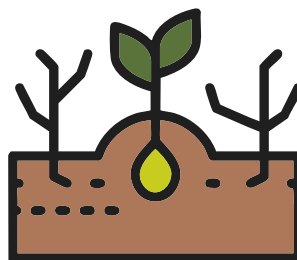


Wood

Benefits of mulching process



Moisture retention



Control weeds



Protects soil



Lesson procedure

Time	Activity	Details
0 – 5 minutes	Starter (Visuals)	Show pictures: bare soil vs. mulched soil. Ask: “ What do you see? ”
5 – 10 minutes	Introduction to Mulching	Explain basically: ‘Mulching is covering the soil with dry things like leaves or grass to protect it.’
10 – 15 minutes	Why is Mulching Important?	Use pictures to explain: - Keeps soil wet (retains moisture) - Stops weeds from growing - Protects soil from sun and rain
15 – 25 minutes	How to Do Mulching (Practical/Demo)	Use a tray or real soil: 1. Spread dry leaves or grass on the soil 2. Cover evenly 3. Observe differences Students repeat steps autonomously but under supervision
25 – 30 minutes	Class Discussion	Ask students: - What materials can we use for mulching? - What did you notice when we added mulch?
30 – 35 minutes	Assessment (Worksheet)	Refer to Assessment Worksheet

Teacher's Responsibilities

- #1** Show clear and large pictures
- #2** Use simple, slow language
- #3** Give step-by-step demo
- #4** Help with hands-on task
- #5** Ask easy questions
- #6** Provide positive feedback

Students' Responsibilities

- #1** Look carefully at pictures
- #2** Listen and ask questions
- #3** Follow the steps slowly
- #4** Do the mulching with support
- #5** Try to answer simply
- #6** Try your best

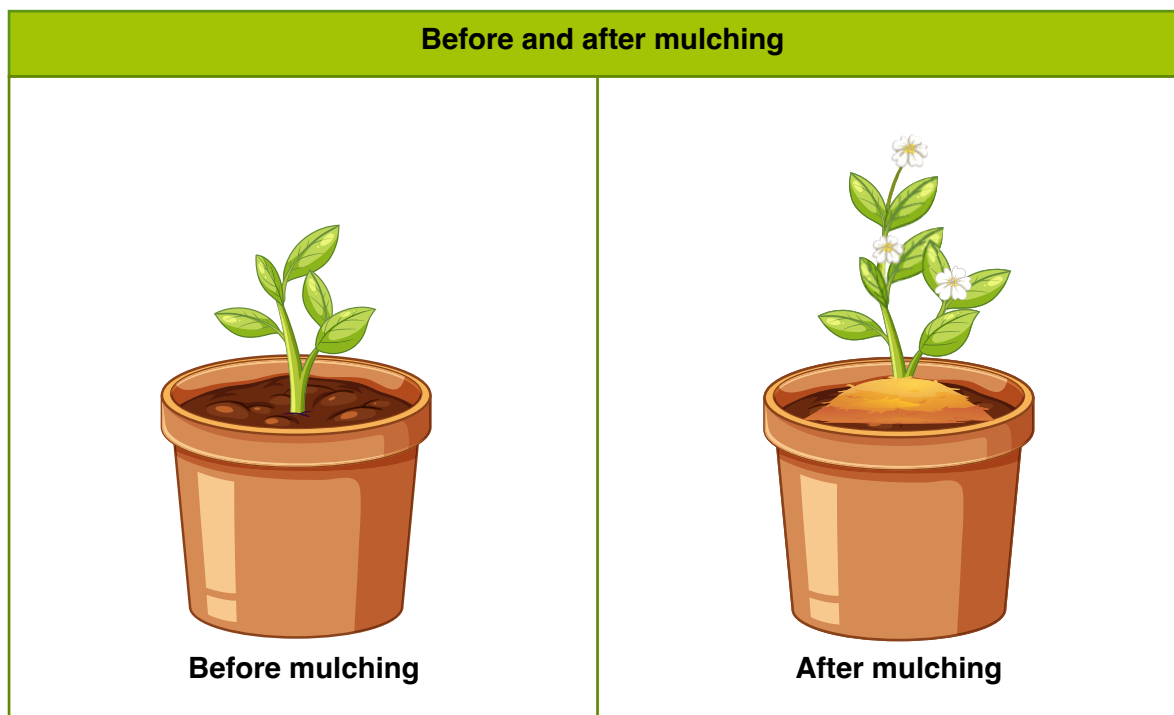


Figure 2. Mulching in pots using dry straw



Figure 3. Mulching of watermelon plants using dry straw
Source: <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Assessment Worksheet

Topic: Understanding Mulching

🍏 Name: _____

🍏 Grade: _____

🍏 Date: _____

Instructions:

Circle the correct answer and complete the activity as directed.

1. What does mulching cover?

A. Sky

B. Soil

C. Roof

2. Mulching helps soil to:

A. Stay wet

B. Get dry

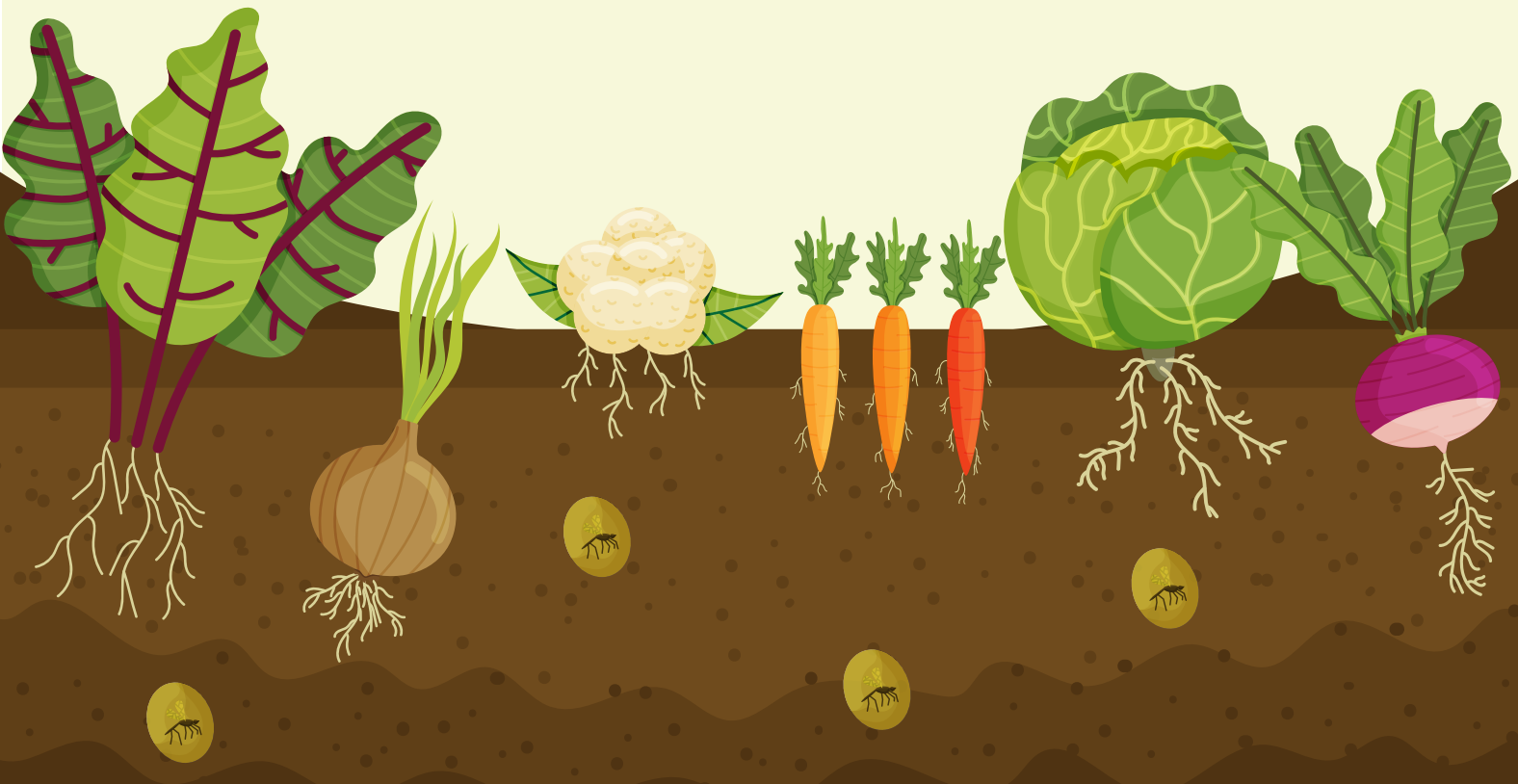
C. Fly away

3. Name **one** material used for mulching:

Answer: _____

4. Draw a picture of mulching. Coloured pencils can be used.

(Draw soil covered with mulch materials like leaves or straw.)



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