

Daily Lesson Plan

(DLP)

Topic: Soil Amendments		Day: 1
Grade: 2-3	Lesson Name: Soil Amendments	Time : (60 Mins.)

Topic	Soil Amendments		
Weekly key words	Amendments, infiltration, environment, organic, inorganic, etc.		
Seating plan	<input type="checkbox"/> Individual	<input type="checkbox"/> Pairs	Group of 4
Skill development	<input checked="" type="checkbox"/> Reading <input type="checkbox"/> Reflection <input type="checkbox"/> Other (Specify)	<input checked="" type="checkbox"/> Writing <input type="checkbox"/> Illustration	<input checked="" type="checkbox"/> Discussion <input type="checkbox"/> Presentation <input type="checkbox"/> Collaboration <input type="checkbox"/> Observation <input type="checkbox"/> Research

Objectives: ➤ The students will be able to:	➤ Learn about amendments of soil
Teaching Resources:	Writing board, pen/pencil,
Teaching Learning Strategies	
Introduction: Oral Discussion: Write down the topic on the board and encourage the students to share what they know about the topic. Take their responses and give feedback. Methodology: Activity: A soil amendment is any material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, drainage, aeration and structure. The goal is to provide a better environment for roots. To do its work, an amendment must be thoroughly mixed into the soil. If it is merely buried, its effectiveness is reduced, and it will interfere with water and air movement and root growth. Amending a soil is not the same thing as mulching, although many mulches also are used as amendments. A mulch is left on the soil surface. Its purpose is to reduce evaporation and runoff, inhibit weed growth, and create an attractive appearance. Mulches also moderate soil	

temperature. Organic mulches may be incorporated into the soil as amendments after they have decomposed to the point that they no longer serve their purpose.

Organic vs. Inorganic Amendments

There are **two broad categories of soil amendments: organic and inorganic**.

Organic amendments come from something that was alive.

Inorganic amendments, on the other hand, are either mined or man-made. Organic amendments include sphagnum peat, wood chips, grass clippings, straw, compost, manure, biosolids, sawdust and wood ash.

Inorganic amendments include vermiculite, perlite, tire chunks, pea gravel and sand.

Wood ash, an organic amendment, is high in both pH and salt. It can magnify common Colorado soil problems and should not be used as a soil amendment.

Don't add sand to clay soil — this creates a soil structure similar to concrete.

Organic amendments increase soil organic matter content and offer many benefits. Over time, organic matter improves soil aeration, water infiltration, and both water- and nutrient-holding capacity. Many organic amendments contain plant nutrients and act as organic fertilizers. Organic matter also is an important energy source for bacteria, fungi and earthworms that live in the soil.

Factors to Consider When Choosing an Amendment

There are at least four factors to consider in selecting a soil amendment:

- **how long the amendment will last in the soil,**
- **soil texture,**
- **soil salinity and plant sensitivities to salts, and**
- **salt content and pH of the amendment.**

Laboratory tests can determine the salt content, pH and organic matter of organic amendments. The quality of bulk organic amendments for large-scale landscape uses can then be determined.

Longevity of the Amendment

The amendment you choose depends on your goals.

- **Are you trying to improve soil physical properties quickly? Choose an amendment that decomposes rapidly.**
- **Do you want a long-lasting improvement to your soil? Choose an amendment that decomposes slowly.**
- **Do you want a quick improvement that lasts a long time? Choose a combination of amendments.**

Wrap up (5mins.): Wind up the lesson by asking the students to discuss the role of amendment of soil in plant growth.

Home Assessment:

Revise the work done

Worksheet

Lesson Evaluation:

- Teacher was able to accomplish all aspects of the lesson well ☐
- Teacher was not able to do warm up activity ☐,
- develop lesson plan well ☐,
- do the learning activity ☐,
- do wrap up ☐,
- accomplish lesson objective ☐,
- manage time well ☐,
- manage class well ☐

Worksheet Day

Name: _____

Class: _____

Topic: Soil Exploration

Subject: Science

➤ **What is soil amendment?**

➤ **Define organic and inorganic amendments?**
