



Soil

Study guide:

soil_conservation_fossil_fuels_common_core_study_guide_2012.doc

Soil Composition

How Soil Forms reading notes.doc

How Soil Forms reading notes (Read-Only) - Microsoft Word

File Edit View Insert Format Tools Table Window Help

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Soil Formation:

Soil forms as rock is Weathered down by weathering and mixes with other materials on the surface. broken up

Soil is constantly being made wherever bedrock weathers.

Soil formation continues over a long period of hundreds of years

Soil layers are called horizons

A soil horizon is a layer of soil that differs in color, texture, and composition from the layers above or below it.

Complete the following diagrams of the soil horizons. Be sure to include a sketch of what that particular horizon would include, use colored pencils to help visualize what should be found.

Which layer (horizon) contains the most organic material? Horizon A

The diagram shows three rectangular boxes representing soil horizons. The leftmost box is labeled 'C horizon'. The middle box is labeled 'A horizon'. The rightmost box is divided into two sections: the top section is labeled 'A horizon' and the bottom section is labeled 'B horizon'. A vertical line is drawn to the right of the boxes, and a horizontal line is drawn across the top of the rightmost box. A hand-drawn sketch of a soil profile is visible on the right side of the page, showing a vertical column with a wider top section and a narrower bottom section.

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desert tundra

soil

A horizon

C horizon

Bedrock

temperate deciduous forest

A horizon

B horizon

C horizon

bedrock

bedrock

bedrock

Compare and Contrast: How are horizons A, B, and C all different?

So as you have more soil and less bedrock
You provide a perfect place to grow plants and
for other living organism to inhabit

How do living things affect soil?

How do the organisms that live in soil affect the soil?

From Rock to Soil

Draw/Label the steps a rock goes through to make soil

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Type a question for help

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1 2 3 4 5 6 7 Increase Indent

How do living things affect soil?

How do the organisms that live in soil affect the soil?

SOME organisms Make humus: dead plants an animals are decomposed	OTHER organisms MIX it The soil
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From Rock to Soil

Draw/Label the steps a rock goes through to make soil

```
graph TD; A[rocks] --> B[Chemical weathering  
rock not as big]; B --> C[decomposition  
2/30]; C --> D[adding humus]; D --> E[Soil formation]; E -- "100s of years" --> A;
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earth works

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How Soil Forms

What is soil? _____

Soil Composition:

Soil is made up of a mixture of rock particles, minerals decayed organic material, water and air.

One of the main ingredients of soil comes from bedrock.

Bedrock is the solid layer of rock beneath the soil. Once bedrock is exposed to air, water, and living things (agents of weathering), it gradually weathers into smaller and smaller particles which are the most common components of soil.

Humus is a dark-colored substance that forms as plant and animals remains decay.

Humus creates spaces in soil for air and water.

Humus contains nutrients that plants need.

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3 characteristics to describe soil:

Texture	pH (acidity)	Fertility
<p>Most important factor for plant growth.</p> <p>Soil texture depends on the <u>size</u> of the soil particles.</p> <p>The best soil for plant growth is <u>loam</u> which is made up of <u>equal</u> parts of clay, sand, and silt.</p>	<p>Most gardens grow best in soil that a pH between <u>6 pH</u> and <u>7.5 pH</u>.</p> <p>Water is considered neutral, which has a pH level of <u>7 pH</u>.</p> <p>Above 10 is <u>base/basic</u></p> <p>Below 4 is <u>very acidic</u></p>	<p>Measures how well the soil supports plant growth.</p> <p>Fertile soil is rich in the <u>nutrients</u> that plants need to grow.</p> <p>Soil that is rich in humus (<u>dead organisms</u>) has high fertility (best for plant growth). ☆</p> <p>Sandy soil is <u>not ideal</u> for plant growth because it is <u>low in humus</u>.</p>

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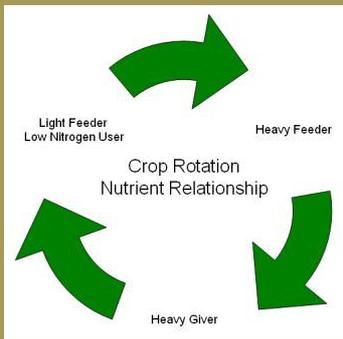
1 2 3 4 5 6 7

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Crop Rotation



Terracing



Soil Conservation

Soil Conservation.docx



Conservation plowing



Contour Plowing

drought



Conserving Land and Soil management2.doc



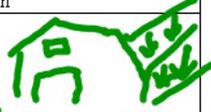
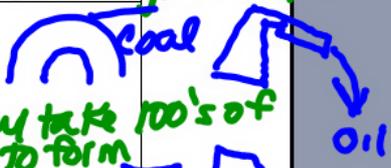
Terracing



Dust bowl

Conserving Land and Soil management2(16746) (Read-Only) - Microsoft Word

The three uses of land by people are agriculture, mining, and development.

Land Use	Description	Sketch
Agriculture	<p>farming, raising livestock</p> <p>1/3 of land can be used to grow crops</p>	
Mining	<p>to remove natural resources that are non-renewable < They take 100's of millions of years to form</p>	
Development	<p>use land that has good soil located near water to build cities.</p> <p>- Every year the area 1/2 the size of the state of NY is developed</p>	

Big Idea # 2: Why is soil management important? Pg 162

It takes 100's of years for just a few centimeters of new soil to be made.



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Attachments

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