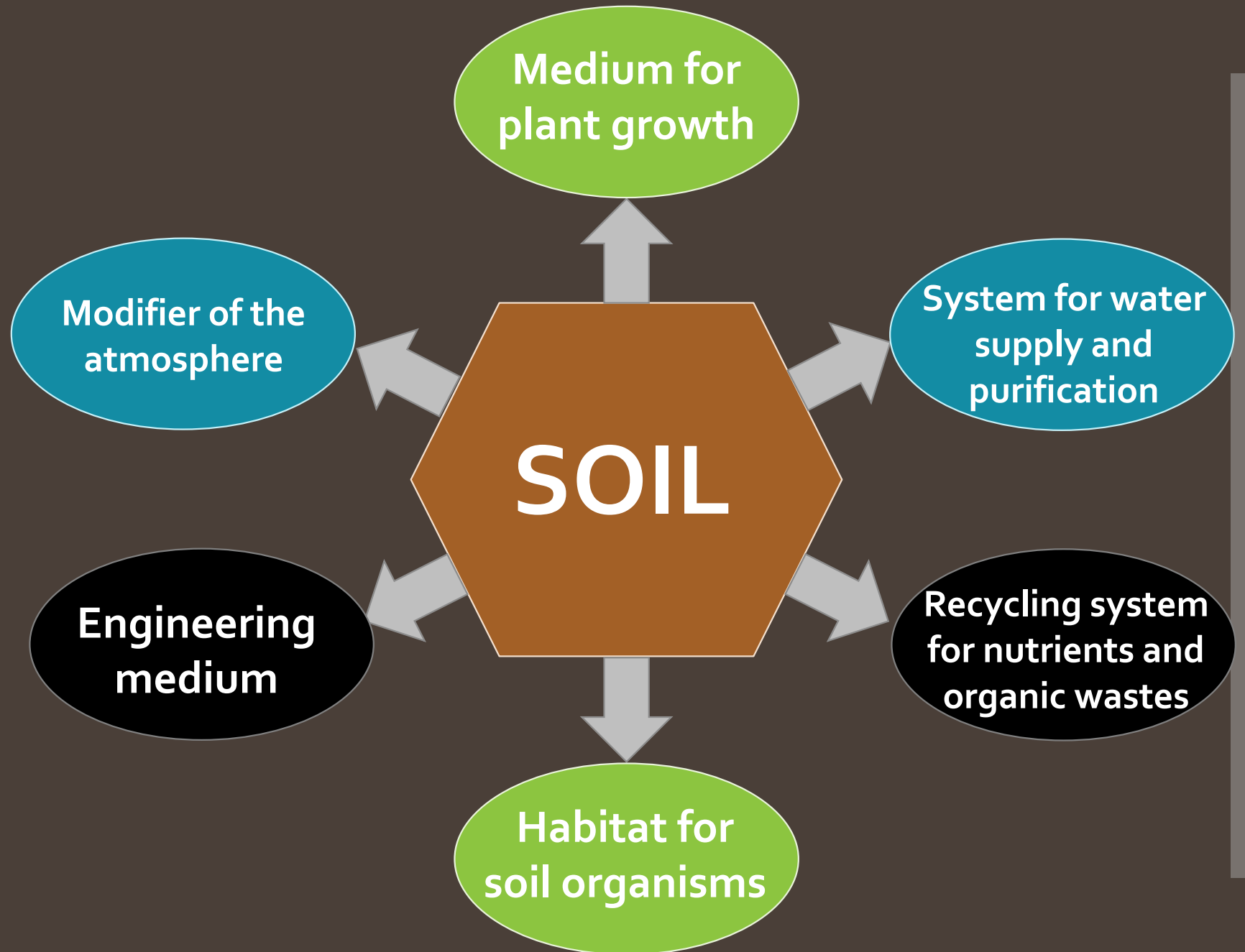


Intro to Soils

The Basics



The 6 Functions of Soils



The 5 Soil Forming Factors

Parent Material

Climate

Topography

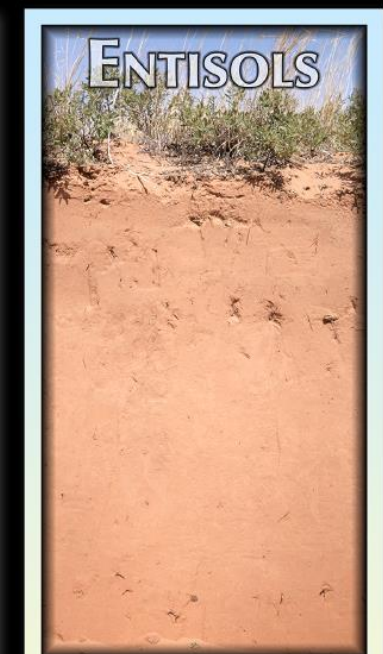
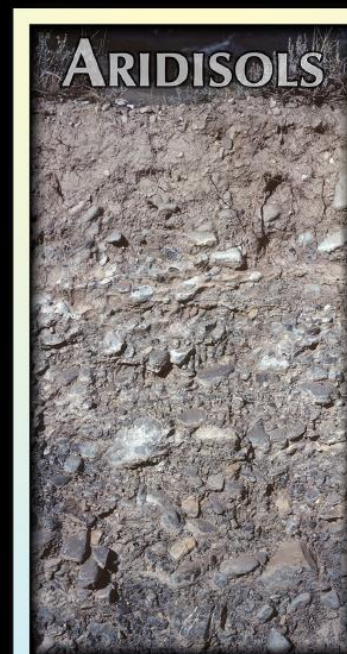
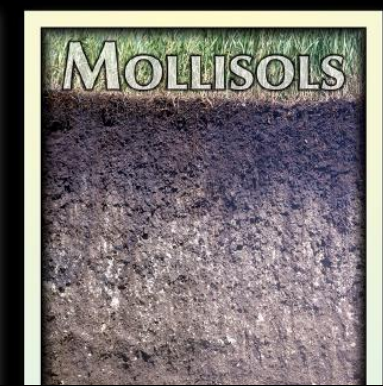
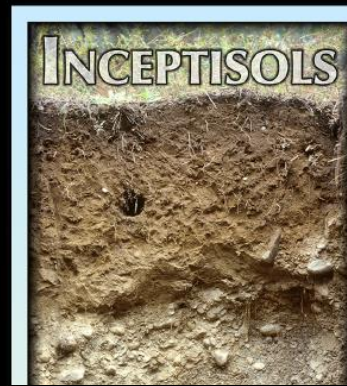
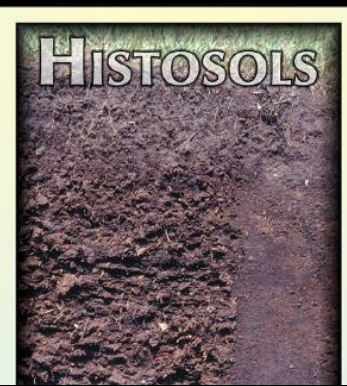
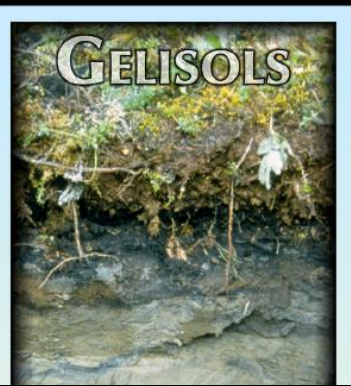
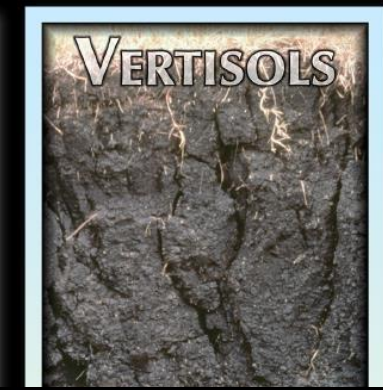
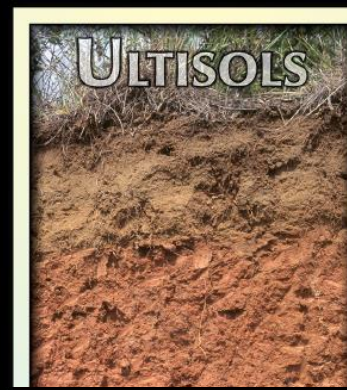
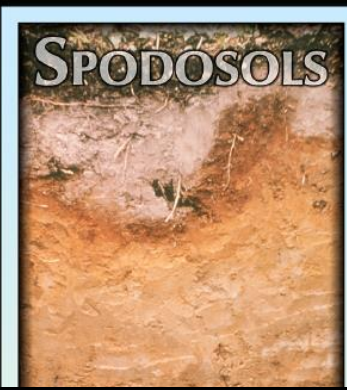
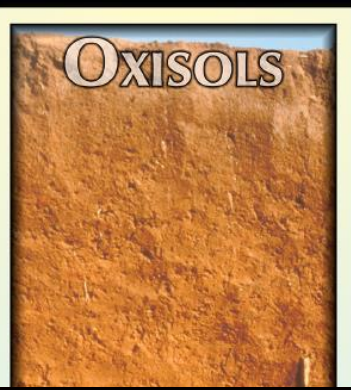
Biotic Factors

Time



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Soil Classification and Taxonomy



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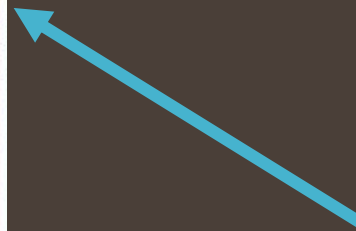
Soil Series

Top (surface)



Bottom
(Subsurface)

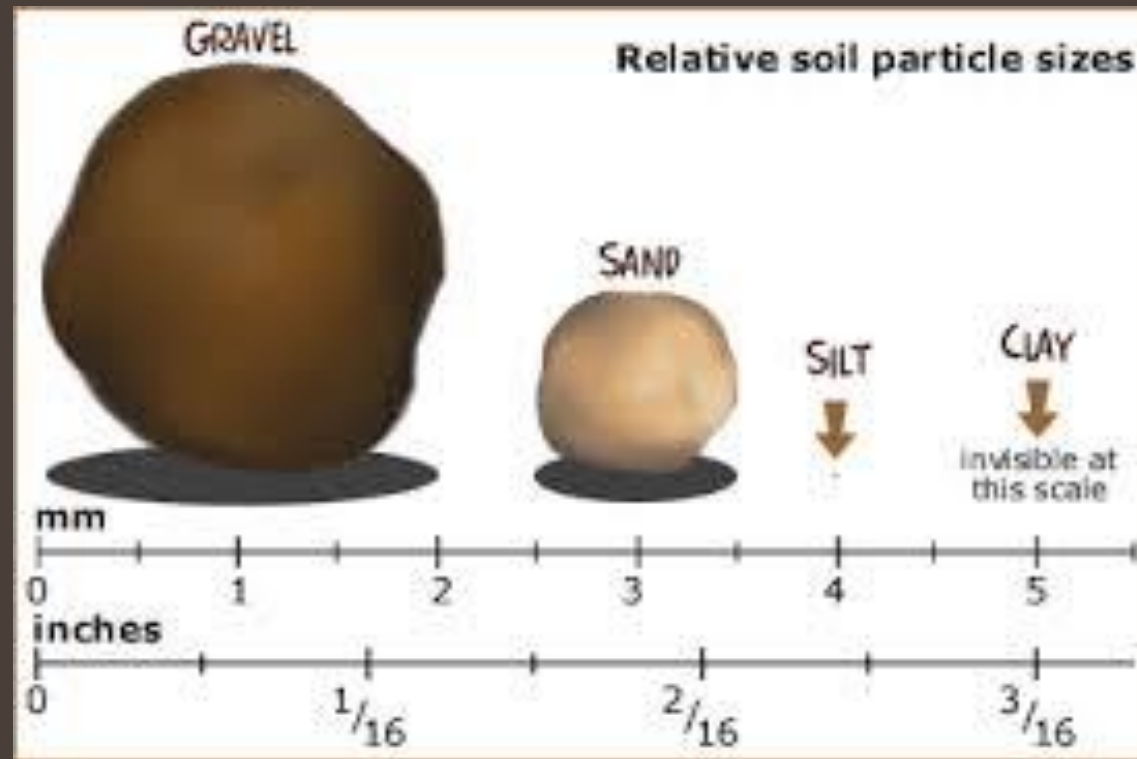
Indiana's State Soil is called "Miami"



This is a soil profile.

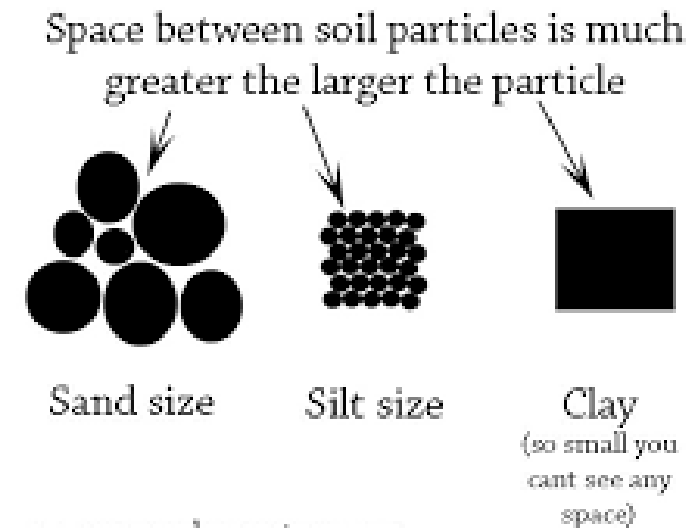
It shows you what the Miami soil looks like if you dug a hole and could see all the horizons, or levels, of the soil.

Soil Physical Properties



Soil Texture
(the % of sand, silt, and clay)

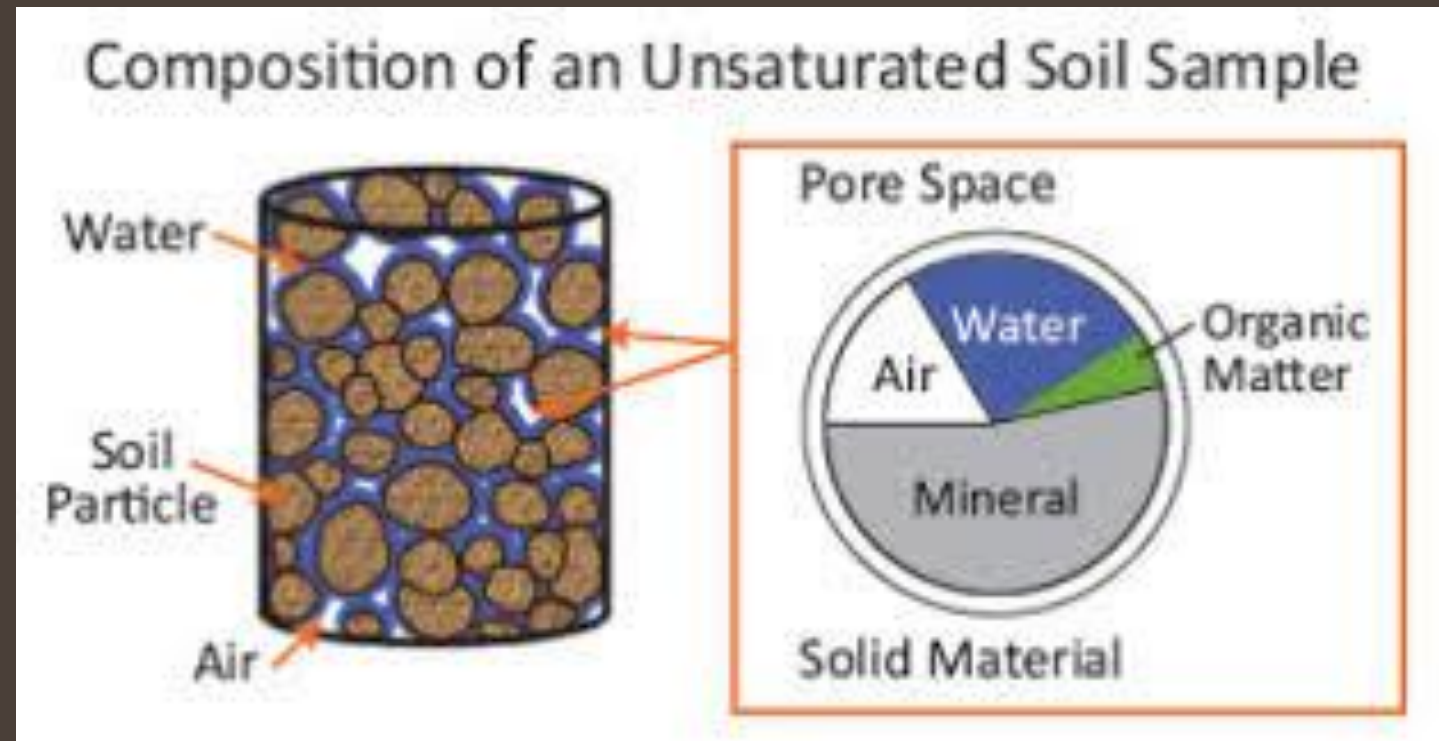
Soil physical properties are important because they influence how water and air move through the soil and become available for plants



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www.yourgardensanctuary.com

Soil Water



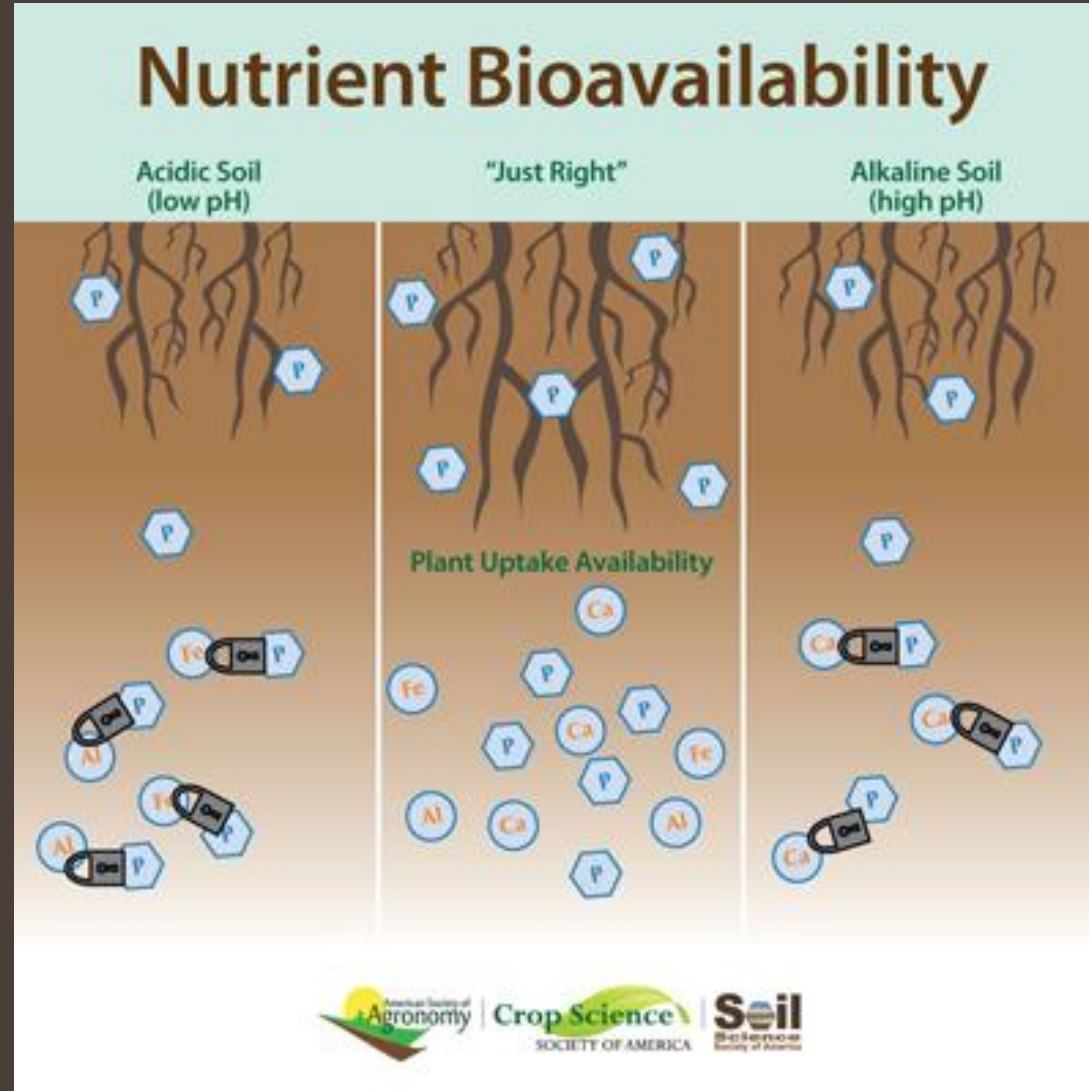
Where do plants get their water!?

From the soil!!

Soil Chemistry is the complex processes and interactions that happen to the mineral and biological components of the soil.

The best indicator for soil chemistry is pH!

Soil Chemistry

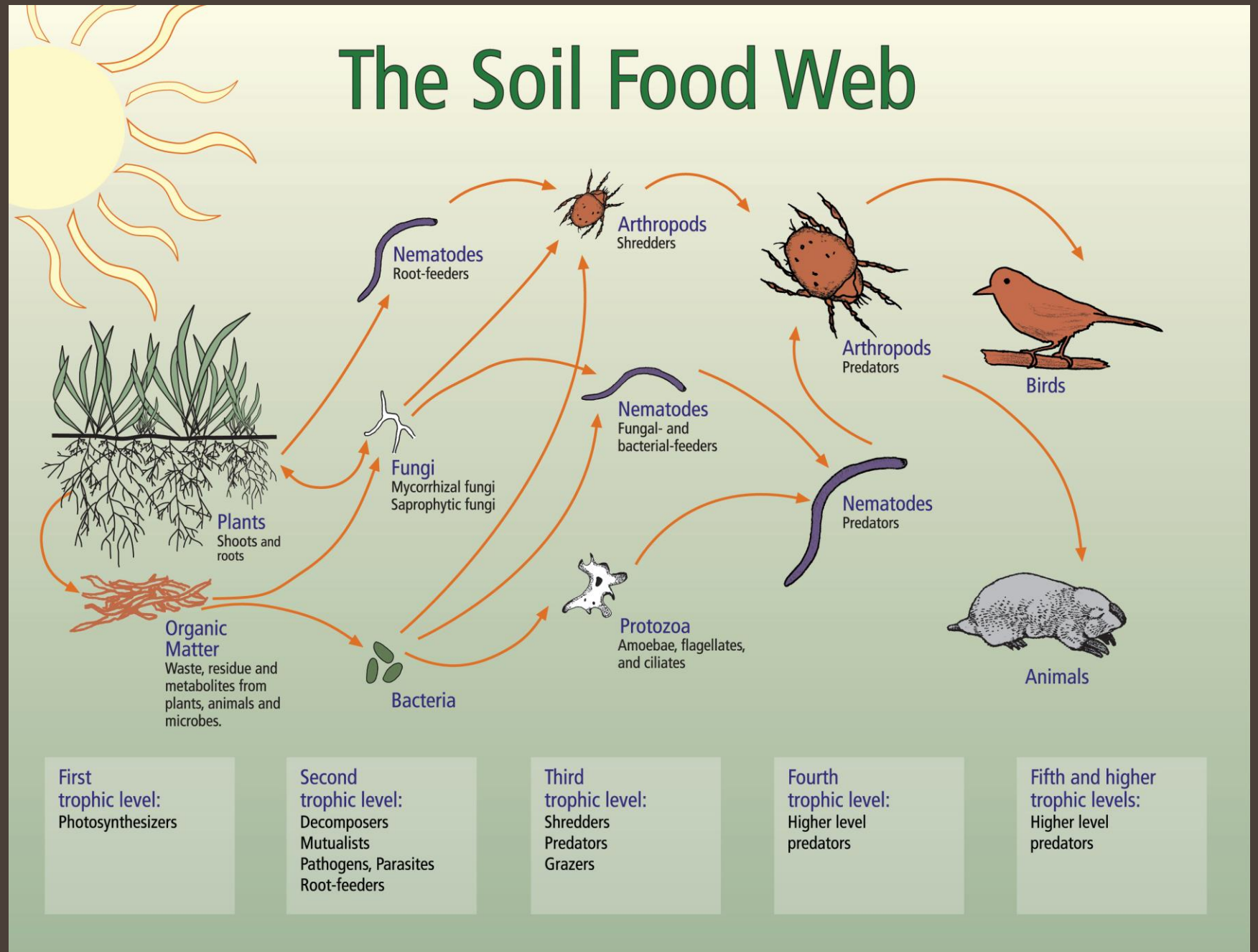


If the pH is
“just right”
nutrients that
plants need are
plentiful



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Soil Biology



Macronutrients

Found in the soil, needed by plants

Soil Nutrients

N

Nitrogen

—

P

Phosphorus

—

K

Potassium

Ca

Calcium

—

Mg

Magnesium

—

S

Sulfur



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Soil Health

USDA-NRCS SOIL HEALTH INFOGRAPHIC SERIES #003



what's underneath

One teaspoon of *healthy* soil contains



**100 million-
1 billion** individual
bacteria

Source: Soil Biology Primer page c-1 (Elaine Ingham, Andrew R. Moldenke, Clive Edwards)



Want more soil secrets?
Check out www.nrcs.usda.gov

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Explore these
links and the
“notes” section
below each slide
for background
information

Learn More!



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**Supporting
Information,
Resources, and
Classroom
Activities**

USDA-NRCS Soil Health Resources:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/soils/health/?cid=stelprdb1048859>

Soil Basics from the Soil Science Society of America:

<https://www.soils.org/discover-soils/soil-basics>

K-12 Soil Science Teacher Resources:

<https://www.soils4teachers.org/soil-basics>

USDA-NRCS Soil Education Resources:

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/edu/>

Soil Health Institute Resources:

<https://soilhealthinstitute.org/resources/soil-health-educational-resources/>

Elkhart County Soil and Water Conservation District

Still want to know
more?

Contact us!

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