

Biogeochemistry & cycles

Unit 4, chap. 7

The cycle of things

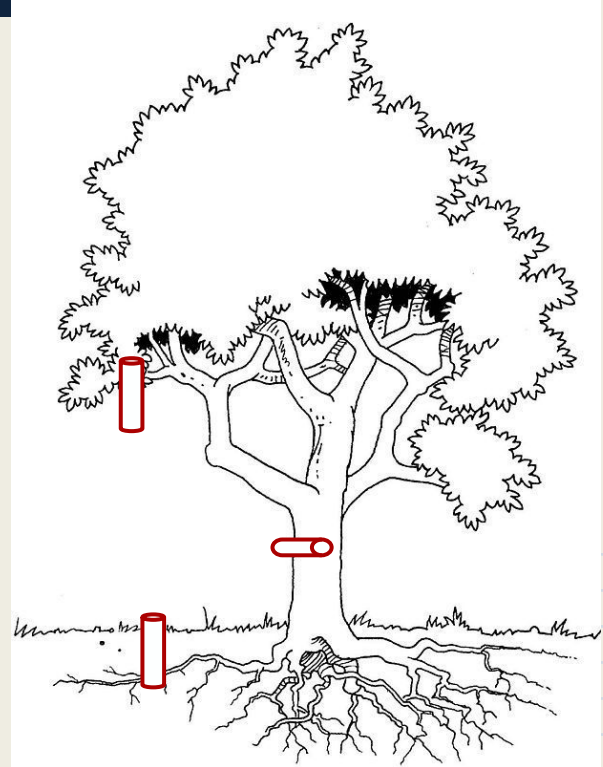
Matter cannot be created or destroyed, nor can the material that makes it up.

It is just a matter of accounting.

Accounting of a cycle

- 1.) Start with the capital (or total).
- 2.) Then, keep track of the amounts in each place for how long it's there.

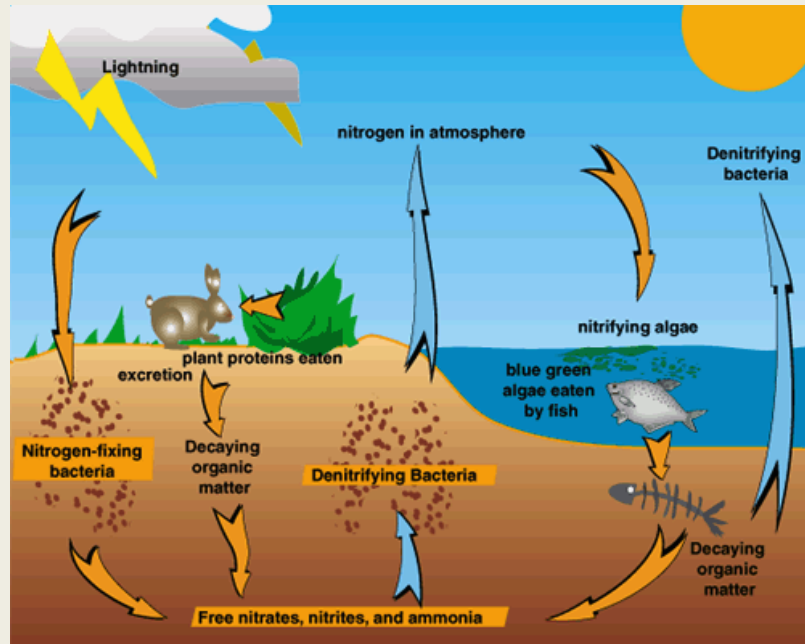
Pools & Fluxes
Residence times & Cycling times
Equilibrium




(re)cycle everything

Rocks and nutrients
Water and life

Can you find the forensic tie?



The Cycle of Life



We live, we die, we feed the detritivores.
And the nutrients go too.

Make the connection

Take a few minutes to describe how biogeochemistry can tie in to forensics. How do you think this applies to your role in law enforcement?

Warning: This video is graphic.
50 minutes for video.

Dynamics and impacts

Every elemental cycle is different, but there are themes.

- Seasonal cycles
- Chaotic events (storms, weather changes)
- Human activity

Apply this

- 1.) Imagine you come across a cadaver as the first officer on the scene. What should you note? (Describe the scene in your mind, anything goes.)
- 2.) Imagine you are working with the CSI team later on collecting evidence and noting the science. What are some changes and notes that could impact your work?

Unit Homework

Chapter 6:

§ 6.1,

2 - 3

§ 6.2

3

§ 6.4

2

Chapter 7:

§ 7.1

1 - 3

§ 7.8

1 - 4

Project 2 (due in two weeks)

DUE: Thursday

DON'T FORGET

Project #2 is due next week Thursday.

Scale the concept of your first project up to think about it on a national, international, and global level. Think about how the Non-Government Organisations (NGOs), corporations, and governments present their views on various issues & make policies that impact the environment on all these levels.

Conduct initial research on specific policies that are developed to promote an environmentally responsible agenda. Select one specific NGO, corporate, OR government policy to evaluate in depth.

You will answer:

- Purpose of policy
- Short and long term ecological impacts
- Examine the controversies surrounding it
- State and support your view on this policy (no wrong answer, but I will grade for logic and argumentation.)

Quiz next week: Covers chapter 5 - 7. (We'll review Monday.)