

Sedimentation as a Source of Pollution

Lesson 4

1. REVIEW: We have talked about and/or observed : Dirty Water and Sedimentation

Different types of soil that depend on soil

size

amount of organic matter

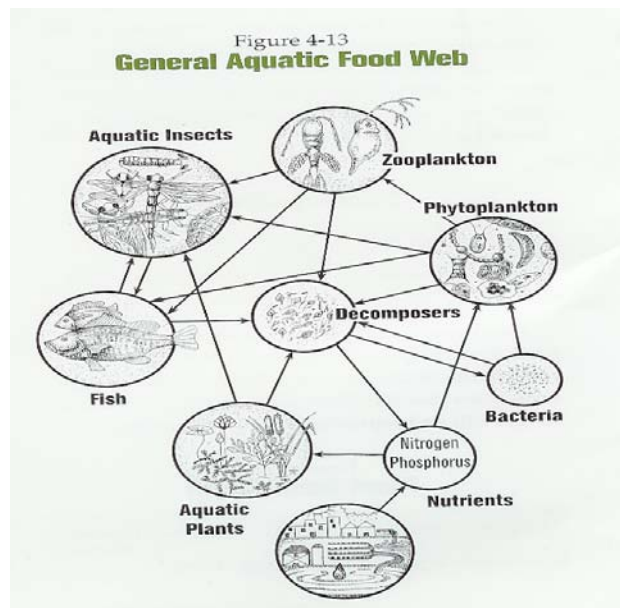
minerals

Soils are part of the rock cycle that results from weathering

Smaller particles of soil in water settle out more slowly than larger particles

Our main question today is: WHY is sedimentation viewed as a source of POLLUTION?

Because sedimentation is detrimental to life. HOW?



2. Review What essential part of the ecosystem turns the energy from the sun into food for ALL the Animals?

3. What do plants need to live?

. Sunshine to carry on Photosynthesis

. Water

. Soil (nutrients)

. Oxygen and carbon dioxide

4. How does sediment affect these factors in an aquatic ecosystem?

5. Sediment in dirty water reduces photosynthesis. How does that then affect the animals?

6. Remember that organisms in an ecosystem are interdependent. (see above)

7. What do animals need to live?

All Animals including Aquatic Animals need



FOOD. We have already seen that sediment reduces food made by plants Also, animals CANNOT SEE their food as well with cloudy sediment in the water.

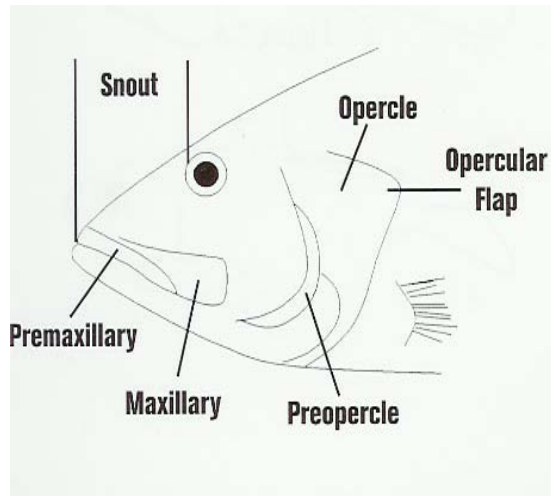
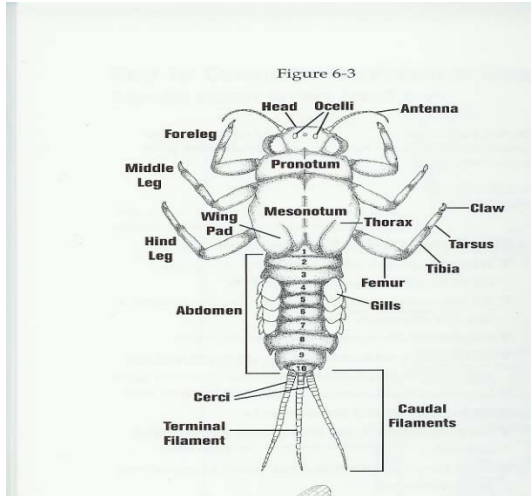
OXYGEN dissolved in the water. Where does the oxygen come from?

8. OXYGEN comes from the **AIR** and from the PLANTS in the water when they carry out photosynthesis.

Since sediment reduces photosynthesis (less light can get through to the plants),

Sediment in the water also reduces the oxygen in the water for the animals.

Many aquatic animals get OXYGEN through their gills. Aquatic animals cannot cover their gills and sediment harms them. The gills are under the opercular flap in a fish.



9. Animals have different **structures** to perform life necessary functions.

What is the **function** of the gills?

Who has gills?

What is the **function** of lungs?

Who has lungs?

10. Sediment harms aquatic life, therefore sediment is a pollutant.

11. Where does Sediment come from?

12. Sediment comes from BARE soil. When wind or water carry soil particles away we call this **EROSION**

13. What can we do to reduce erosion? Reducing erosion will lessen sedimentation.

Tomorrow we will study ways to reduce sedimentation

14. Important things to remember:

Sedimentation is a Nonpoint Source Pollution

Importance of Photosynthesis

Gills are aquatic animal **structures** with the **function** of gathering oxygen

Erosion is the carrying of particles by water or wind