Basal Resources

Learning Module #14

**Opening Activity**

Question 1:

Question 2:

Basal Resources

Learning Module #14

**Basal Resources in our Campus Stream**

Observations of Algae

**Step 1: Preparation of wet mount slide**

*Directions:*

1. Put on gloves
2. Take out sample (substrate) from whirl-pak bag and place into plastic tray. Pour water from the bag into the tray.
3. Use to toothbrush to gently scrape your substrate. Try to scrape the surface at least 3x
4. Use DI water to rinse your substrate AND your toothbrush. NOTE: use as little water as possible! Using too much water will dilute your sample, making it difficult to observe algae.
5. Collect 1 microscope slide and 1 coverslip from your instructor.
6. Pipette the sample water.
7. Place 1-2 drops of sample water onto microscope slide
8. Gently place coverslip on top of microscope slide.

**Step 2: Algae observations**

*Directions*: For each sample of algae viewed in class, fill out a row of the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| Sample information | Substrate type | Sketch of at least one algal cell from sample | Observations |
|  |  |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Sample information | Substrate type | Sketch of at least one algal cell from sample | Observations |
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**Basal Resources and Water Health**

*Directions*: Answer the questions after viewing or reading each scenario/problem.

**Scenario 1**: Dog death in Georgia (video)

1. Which of the two basal resources was the scenario dealing with? *Circle one*

Leaves Algae

1. Did the health problem occur because of the **quantity** (i.e., too much or too little) or the **type** (i.e., a certain species of algae or type of leaf) of basal resource? *Circle one or both*

Quantity Type

1. In your own words, describe the health problem that occurred in the video/reading:

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**Scenario 2**: Nutrient pollution damages stream (article reading)

1. Which of the two basal resources was the scenario dealing with? *Circle one*

Leaves Algae

1. Did the health problem occur because of the **quantity** (i.e., too much or too little) or the **type** (i.e., a certain species of algae or type of leaf) of basal resource? *Circle one or both*

Quantity Type

1. In your own words, describe the health problem that occurred in the video/reading:

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**Scenario 3**: Fish kill in Australia (video)

1. Which of the two basal resources was the scenario dealing with? *Circle one*

Leaves Algae

1. Did the health problem occur because of the **quantity** (i.e., too much or too little) or the **type** (i.e., a certain species of algae or type of leaf) of basal resource? *Circle one or both*

Quantity Type

1. In your own words, describe the health problem that occurred in the video/reading:

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**Closing Activity**

Question 1: