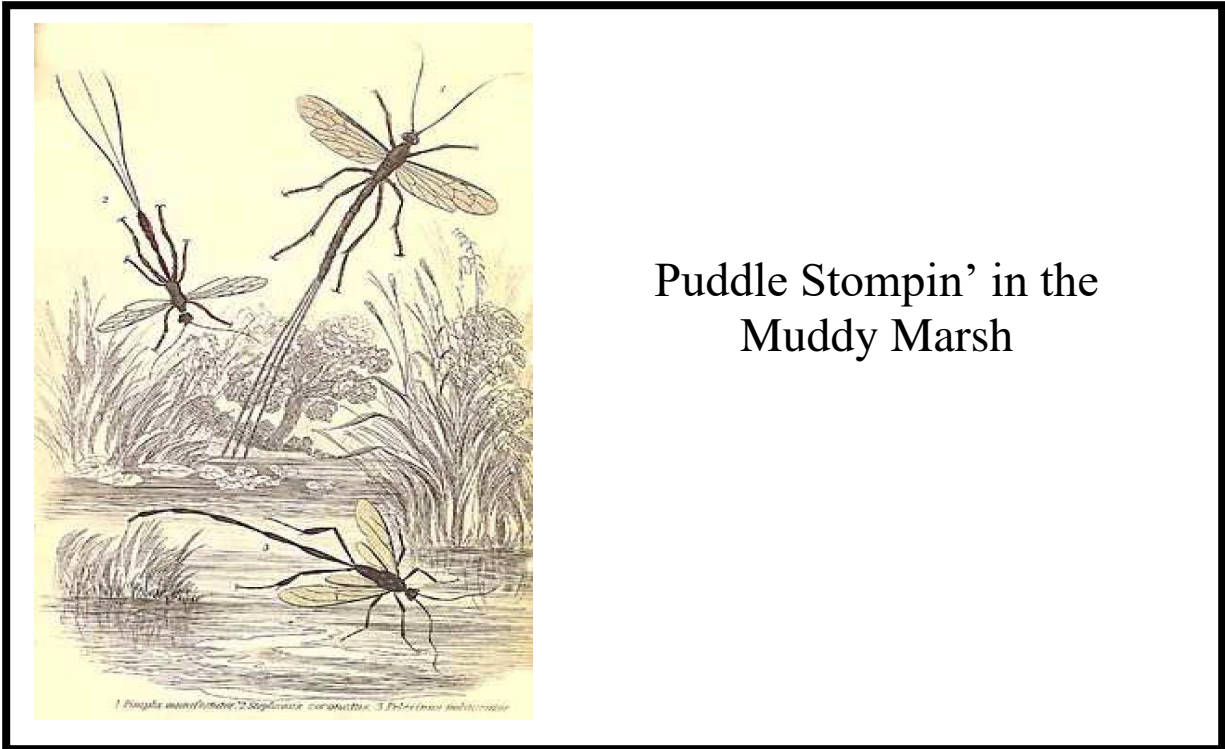




Muck, Snails, and Rails (Muddy Version)

2018 - Driftwood Education Center



Puddle Stompin' in the Muddy Marsh

Class Description:

Marshes tend to be associated with one thing: MUD! These amazing places, however, are more than just mud. They are thriving ecosystems with thousands of species that inhabit them. Students will examine the marshlands here at Driftwood. We will explore the animal and plant species and discover why these locations are so important to pollution control.

For this class, students will be taught for 35 minutes, play in the mud 15 minutes, and clean up the last 40 minutes of class.

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Muck, Snails, and Rails

I. Pre-class set-up

1. Plan with any other instructors
2. Have visuals and activity items

II. Introduction, overview, and assessment (20 min)

1. What is a marsh?
2. Overview and description of class.
3. Marsh importance and river game

Concept 3 – Outcome 1

III. On the Hike to the Marsh (15 min)

1. Plants: Introduction to marsh succession
2. Marsh scenic viewing areas
3. Food web game and discussion

Concepts 1, 2, and 3 - Outcome 2

IV. Mud Pit! (15 min)

1. Mud pit and clean up 55 minutes

V. Conclusion and Wrap-up (2 min)

1. Reasons why marshes are important

VI. Clean up (40 min)

1. Clean the students and yourself
2. Make sure all activity props are put away

Georgia Performance Standards met

S5CS8.a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes. (Deposition, Erosion, Impact of Organisms).

S6E3. Students will recognize the significant role of water in earth processes.

S7L4. Students will examine the dependence of organisms on one another and their environments.

S7L4.a Demonstrate in a food web that matter is transferred from one organism to another and can recycle between organisms and their environments.

Florida Performance Standards met

SC.4.L.17.4 Recognize ways plants and animals, including humans, can impact the environment.

SC.5.L.17.1 Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

SC.7.L.17.1 Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

SC.912.L.17.9 Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.

SC.912.L.17.18 Describe how human population size and resource use relate to environmental quality.

National Standards met

NS.K-4.1 Science as Inquiry

As a result of activities in grades K-4, all students should develop

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

Concepts:

Focal points of this class are:

1. A marsh is a thriving ecosystem with abundant life.
2. A marsh habitat is made of specific forest and vegetation areas that are created through succession.
3. Marshes provide a buffer for natural disasters, help increase pollution control, and are an important habitat for plants and animals.

Outcomes:

Upon completion of this class, students will be able to:

1. Explain the importance of a marsh or wetland ecosystem.
2. Describe and explain succession and how habitats develop over time.

South Carolina Standards met:

4-2.2: Explain how the characteristics of distinct environments (including swamps, rivers and streams, tropical rain forests, deserts, and the polar regions) influence the variety of organisms in each.

5-2.3: Compare the characteristics of different ecosystems (including estuaries/salt marshes, oceans, lakes and ponds, forests, and grasslands).

5-2.4: Identify the roles of organisms as they interact and depend on one another through food chains and food webs in an ecosystem, considering producers and consumers (herbivores, carnivores, and omnivores), decomposers (microorganisms, termites, worms, and fungi), predators and prey, and parasites and hosts.

National Standards met (Continued)

NS.K-4.3 Life Science

As a result of activities in grades K-4, all students should develop understanding of

- The characteristics of organisms
- Life cycles of organisms
- Organisms and environments

NS.5-8.1 Science As Inquiry

As a result of activities in grades 5-8, all students should develop--

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

NS.5-8.3 Life Science

As a result of their activities in grades 5-8, all students should develop understanding

- Structure and function in living systems
- Diversity and adaptations of organisms

NS.9-12.1 Science As Inquiry

As a result of activities in grades 9-12, all students should develop

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

NS.9-12.3 Life Science

As a result of their activities in grades 9-12, all students should develop understanding of

- Interdependence of organisms
- Matter, energy, and organization in living systems
- Behavior of organisms

NS.9-12.6 Personal and Social Perspectives

As a result of activities in grades 9-12, all students should develop understanding of

- Natural resources
- Natural and human-induced hazards