Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

Unit Organizer: Plant/Animal Classification For Our Marsh
(Approximate Time: 1 week**)**

OVERVIEW: Plants and animals can be classified into different groups. Animals can be grouped into vertebrates and invertebrates. The vertebrates are broken into fish, amphibians, reptiles, birds, and mammals. Plants are groups into mosses, ferns, conifers, and flowering plants.

STANDARDS ADDRESSED IN THIS UNIT

Focus Standards:

S5L1. Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.

a. Demonstrate how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).
b. Demonstrate how plants are sorted into groups.

Supporting Standards:

S5CS8. Students will understand important features of the process of scientific inquiry.

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.

KNOWLEDGE:

Students will use observation skills and learn how to classify plants in our marshes.
Students will use observation skills and learn how to classify animals in our marshes.
Students will know how to construct a letter to someone.
Students will explore and learn more about what our marshes are made of.

ENDURING UNDERSTANDINGS

Students will understand that:

All plants and animals can be classified into groups.

Our marshes are made up of many different life forms.

Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

All of the life forms in our marsh work together.

They will learn how to classify the plants and animals found in our marshes.

ESSENTIAL QUESTIONS:

OVERARCHING ESSENTIAL QUESTION

How do I determine how to group plants into their classification?
How do I determine how to group animals into their classification?
Why/How do all of the plant and animals work together to create an ecosystem for our marsh?

TOPICAL ESSENTIAL QUESTIONS

How do I construct a formal letter to someone?
What are the groups in which plants can be classified?
What are the groups in which animals can be classified?
What types of crustaceans can I find in our marshes?
What types of plants can I find in our marshes?

CONCEPTS:

- Learning classification of plants and animals
- Learning how to observe organisms

LANGUAGE:

Vertebrate	Invertebrate	Moss	Conifer	Physical traits
Amphibian	Fish	Fern	Flowering plants	Mammal
Reptile	Bird	Estuary	Silt	Tidal Creek

MISCONCEPTIONS	PROPER CONCEPTIONS
Physical traits used to determine groups	Physical traits are easy to determine through observations
There are not many animals that live in the marsh	Many mammals and amphibians can be found in the marsh
Interesting plants can't live near the marsh	There are a variety of plants that are in the marsh

EVIDENCE OF LEARNING:
By the conclusion of this unit, students should be able to demonstrate the following competencies: classify plants/animals into groups that are found in our marsh. **Culminating Activity:** Students will go on a scavenger hunt during their visit. After the scavenger hunt, students will conduct a picture book containing descriptions and present on the last day of the unit.

TASKS DAY 1 (Pre-Visit)
The collection of the following tasks represents the level of depth, rigor and complexity expected of all physical science students to demonstrate evidence of learning
Task: Write a letter to him or her telling them what to expect on their trip to our marsh.
Description: Students will learn background knowledge about the marshes around our area. The teacher or instructor should read the book *And the Tide Comes In…Exploring a Georgia Salt Marsh* written by Merryl Alber.
Discussion, Suggestions for use: Essential Questions: What types of crustaceans can I find in our marshes? What types of plants can I find in our marshes? Vocabulary: Estuary Silt Tidal Creek
Possible Solution: Please refer to page 7 for the rubric.

TASKS DAY 2 (Pre-Visit)
The collection of the following tasks represents the level of depth, rigor and complexity expected of all physical science students to demonstrate evidence of learning
Task: Students will begin by completing a KWL chart. The whole class will then complete a graphic organizer and classify plants and animals based on their groups using the animals and plants listed for vocabulary and also for the items on the scavenger hunt.
Description: The teacher or instructor will teach the students about plant and animal classifications.
Discussion, Suggestions for use: Essential Questions: What are the groups in which plants can be classified? What are the groups in which animals can be classified? Vocabulary: Vertebrate, Invertebrate, Moss, Conifer, Physical traits Amphibian, Fish, Fern, Flowering plants, Mammal Reptile, Bird, Estuary
Possible Solution: Please refer to pages 8 and 9 for the graphic organizers.

TASKS DAY 3 (On Site)
The collection of the following tasks represents the level of depth, rigor and complexity expected of all physical science students to demonstrate evidence of learning
Task: Picture Scavenger Hunt
Description: Students will go on a scavenger hunt in groups of three or four and take pictures of the items on their list.
Discussion, Suggestions for use: Essential Questions:

What are the groups in which plants can be classified?
What are the groups in which animals can be classified?
What types of crustaceans can I find in our marshes?
What types of plants can I find in our marshes?
Vocabulary:

Vertebrate	Invertebrate	Moss	Conifer	Physical traits
Amphibian	Fish	Fern	Flowering plants	Mammal
Reptile	Bird	Estuary	Silt	Tidal Creek

Possible Solution: Please refer to page 10 for the list of animals and plants on the scavenger hunt.

TASKS DAY 4 (Follow Up)

The collection of the following tasks represents the level of depth, rigor and complexity expected of all physical science students to demonstrate evidence of learning

Task: Picture book of scavenger hunt findings

Description: The students will work independently and create a picture book of everything they found on their scavenger hunt. They should list the classification, where they live, and include the picture.

Discussion, Suggestions for use: Go over directions and expectations of students for project.

Possible Solution: Please refer to page 11 for the rubric for the picture book.

TASKS DAY 5 (Follow Up)

The collection of the following tasks represents the level of depth, rigor and complexity expected of all physical science students to demonstrate evidence of learning

Task: Presentation

Description: Students will present their picture books.

Discussion, Suggestions for use: Students can discuss thoughts on the process of creating the picture books and give feedback.
Possible Solution: Please refer to page 11 for the rubric for the picture book.

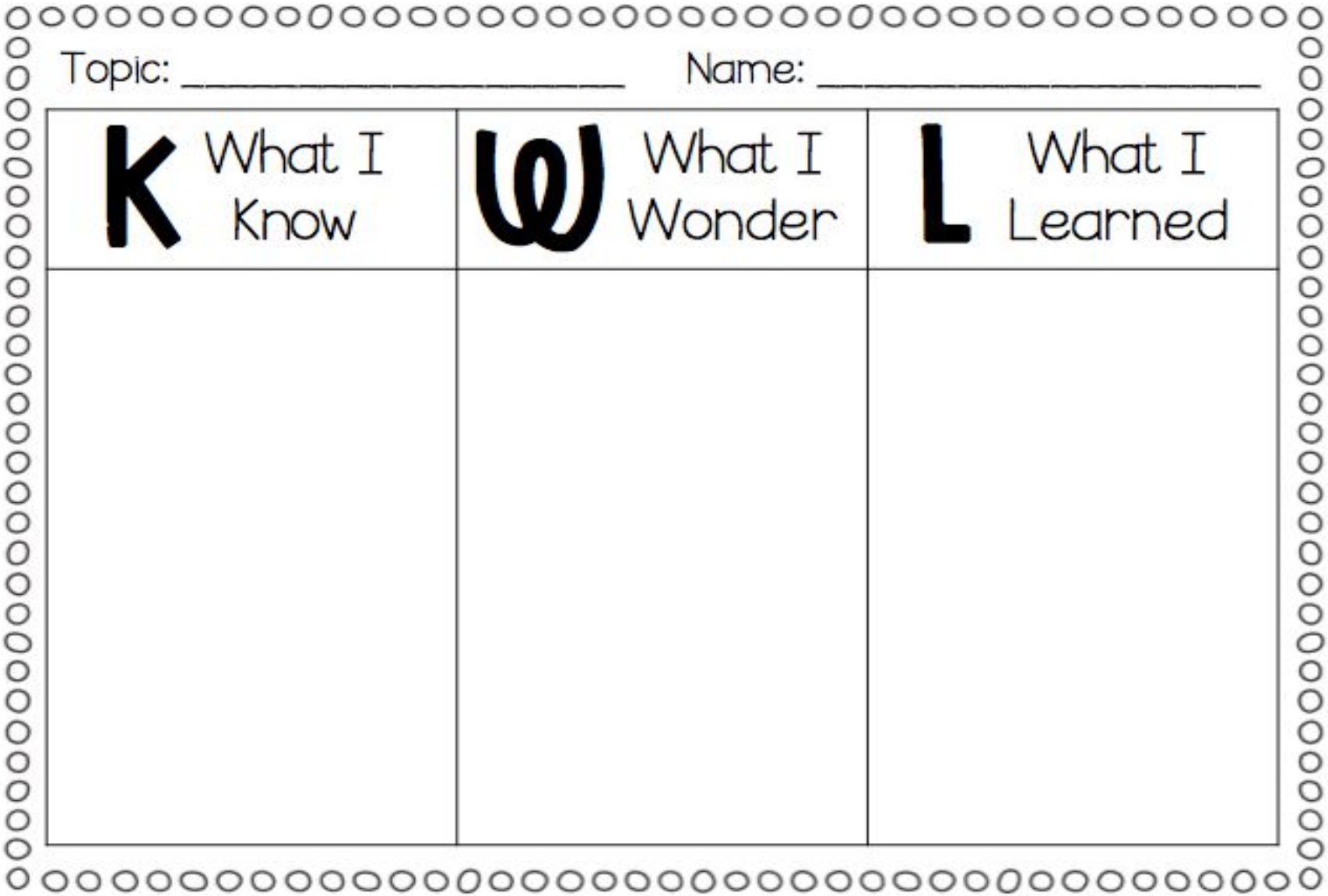
Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

Day 1 Rubric

	4	3	2	1
Letter Parts	Has a heading, greeting, body, closing, and signature.	Has date, greeting, body, closing and signature.	Has four of the five letter parts.	Has three or less letter parts.
Presentation	Margins are present on all four sides and text is visually centered on top and bottom. Spacing follows correct friendly letter format with spaces between paragraphs.	Margins are present on all four sides. Text is not centered. Spacing follows correct friendly letter format.	Margins are present on all four sides. Spacing has 1-3 errors.	Margins are present on all four sides. Spacing has four or more errors.
Conventions	Excellent punctuation, spelling, and grammar with less than five errors.	Very good punctuation, spelling, and grammar with less than seven errors.	Punctuation, spelling, and grammar slightly distract the reader. There are ten errors or less.	Punctuation, spelling, and grammar significantly distract the reader. There are more than ten errors.
Content	Message stated is clear, precise, and shows insight. Letter is three or more paragraphs. Letter encourages a response from the reader.	Message is clear. Letter is two paragraphs.	Message is mostly clear. Letter is one paragraph in length.	Message is not focused. Ideas wander. The reader may have to infer at times.

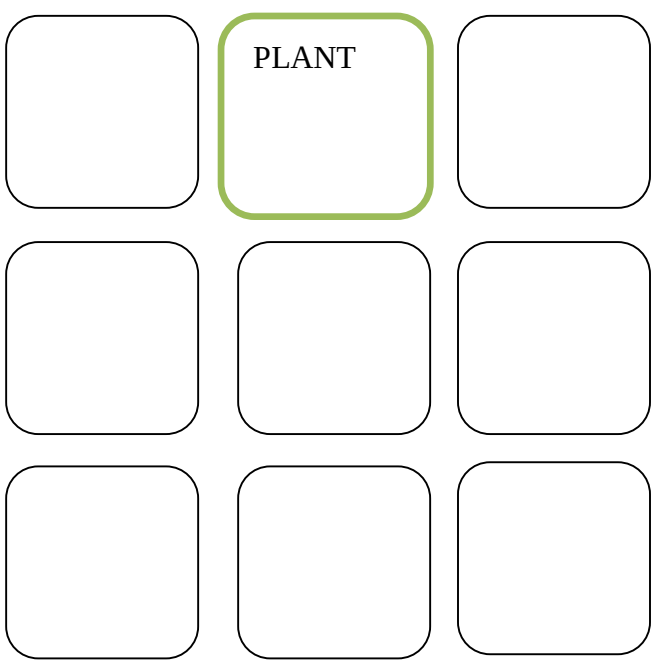
Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

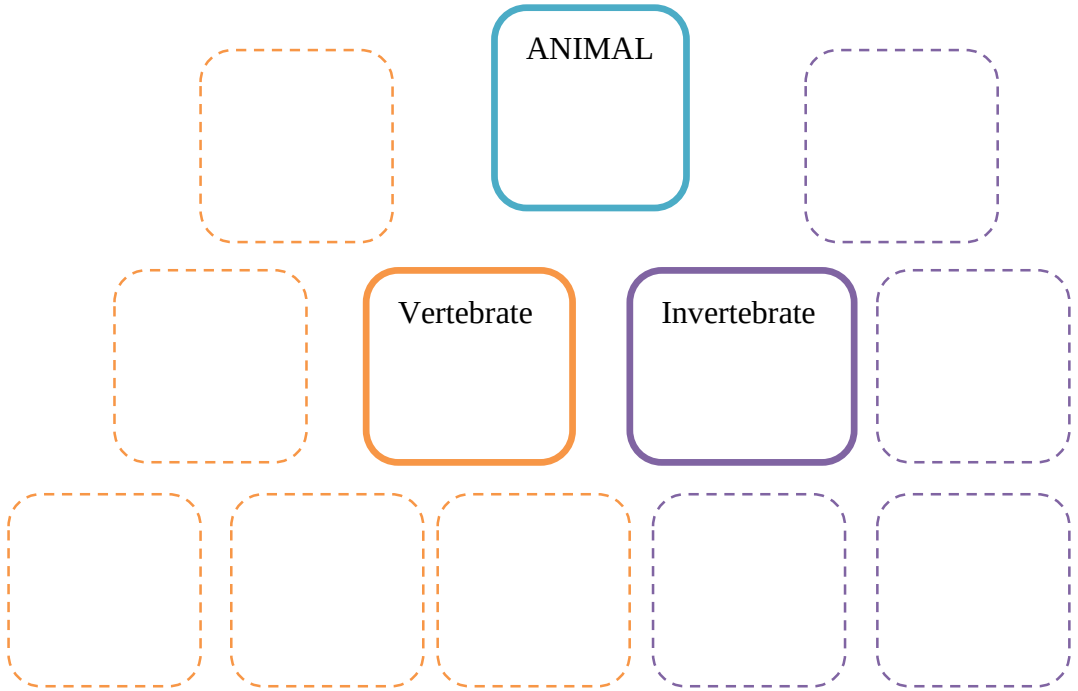
Day 2 KWL Chart: Students will fill out “L” column at the end of class. Topic is animal and plant classification and/or animals and plants in our marsh.


Topic: _____ Name: _____
K What I Know
W What I Wonder
L What I Learned

Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

Day 2 Graphic Organizer





Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

Day 3 Scavenger Hunt

Marshian Scavenger Hunt

PLANTS:

Salt Marsh Cord Grass
Driftwood
Estuary
Marsh Mud
Saltwort
Glasswort
Live Oak

ANIMALS:

Mussels
Periwinkle
Fiddler Crab
Oyster
Raccoon
Fish
Blue Crab
Turtles
Deer
Bobcats
Marsh Rice Rats
Mink
Blue Heron

Betsy Crumbliss
Performance Standard Framework for Science – Grade 5

Day 4 & 5 Rubric for Picture Book and Presentation

	4	3	2	1
Picture Book Layout	Picture book includes 15-20 pictures from the Marshian Scavenger Hunt.	Picture book includes 10-14 pictures from the Marshian Scavenger Hunt.	Picture book includes 5-9 pictures from the Marshian Scavenger Hunt.	Picture book includes 1-4 pictures from the Marshian Scavenger Hunt.
Content	Picture book includes accurate descriptions for 15-20 pictures.	Picture book includes accurate descriptions for 10-14 pictures.	Picture book includes accurate descriptions for 5-9 pictures.	Picture book includes accurate descriptions for 1-4 pictures.
Presentation	Engaged audience and held attention for the duration of the presentation. Used clear articulation, enthusiasm, and was focused on the presentation.	Engaged audience and held their attention most of the time by remaining on topic and presenting facts with enthusiasm.	Little attempt to engage audience.	Did not attempt to engage audience.
Conventions	Excellent punctuation, spelling, and grammar with less than five errors.	Very good punctuation, spelling, and grammar with less than seven errors.	Punctuation, spelling, and grammar slightly distract the reader. There are 10 or less errors.	Punctuation, spelling, and grammar significantly distract the reader. There are more than ten errors.
EXTRA POINTS: Creativity	-Imaginative -Engaging and attention grabbing -Unique and original	-Better-than-average submission -Mostly engaging		

Betsy Crumbliss
Performance Standard Framework for Science – Grade 5