Mountain Expedition- Bird Unit

Guiding Question- What living things compose Western North Carolina's natural environment?

Learning Targets

I can use the scientific method to conduct an experiment.
I can use a graphic organizer to take notes about my bird.
I can research a bird and create a field guide about that bird.
I can fill out my field notebook while out on fieldwork.
I can write a Big Bald reflection explaining who, what, when, where, why, and how.
I can write a narrative about the migration of a bird based on the 5 senses.
I can use a Venn diagram to compare my bird to another NC bird.
I can look at bird banded data and solve for range, median, mode.
I can create a line graph about the number of a particular bird banded over the last 10 years.
I can explain how adaptations help a bird survive in a particular habitat.
I can explain how living and non living things affect birds.

List of assignments

1. **Expedition**
    - KWL Birds
    - Read about using field guides/ bird identification in groups
    - Scientific method-bird power point- Bird Beak Lab-bird power point- What are adaptations?
    - Introduce rubric, bird project, graphic organizer, assign birds
    - Model taking notes/highlighting filling out Red Cardinal- graphic organizer
    - Students get print out of their bird- highlight and fill out graphic organizer
    - Students take notes online and fill in graphic organizer
    - Students get another resource to fill in missing pieces on graphic organizer
    - Students fill in field guide example in complete sentences in notebooks,
    - Students fill in field guide in complete sentences on computer edit on own- peer-teacher
    - Present field guides to class
    - Essay Question test-
        - What behaviors and body structures help birds survive in their environment? Give examples.
        - What living and nonliving things affect your bird and other birds of NC?
2. **Reading**
    - Read aloud Capture
    - Guided reading about characteristics of birds
3. **Writing**
    - Bird RAFT- migrating bird based on notes taken up at Big Bald (5 senses)
    - Big Bald Reflection- News report Who, what, when, where, why, and how
4. **Math**
    - Analyze bird banded data- look at mean, median, mode, range
    - Line graphs with bird banded data
    - Analyzing graphs- What does the data mean?
5. **Fieldwork**
    - Review Big Bald website- expectations, what to wear
    - Big Bald Bird Banding- Field Guide recording birds banded, list of birds, notes of 5 senses, observing w/ binoculars
    - Steve Longnecker brings birds to share
6. **Enrichments**
    - Art- draw bird for field guide
    - Tech- Research (graphic organizer), Power point Big Bald experience, computer graphs

Guiding Question 2: What living and nonliving things compose NC's natural environment?

Learning Target	Assessment	Standards
I can use the scientific method to conduct an experiment.	Bird Beak Lab	Science Goal 1 The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.
I can use a graphic organizer to take notes about my bird.	Graphic Organizer	L.A. Objective 2.06 Summarize major points from nonfiction text(s) to clarify and retain information and ideas.
I can research a bird and create a field guide about that bird.	Field Guide	L.A. Objective 3.06 Conduct research for assigned projects from a variety of sources through the use of technological and informal tools (e.g., print and non-print texts, artifacts, people, libraries, databases, computer networks).
I can fill out my field guide while out on fieldwork.	Big Bald Field Guide	L.A. Objective 4.07 Compose nonfiction, research reports/logs.
I can write a Big Bald reflection explaining who, what, when, where, why, and how.	Big Bald Reflection	L.A. Objective 4.02 Use written language to present information and ideas in a clear, concise manner.
I can write a narrative about the migration of a bird based on the 5 senses.	Narrative	L.A. Objective 4.09 Produce work that follows the conventions of imaginative narrative.
I can use a Venn diagram to compare my bird to another NC bird.	Venn Diagram	L.A. Objective 4.05 Use planning strategies organize ideas (e.g., webbing, reading, discussion).
I can look at bird banded data and solve for range, median, and mode.	Discussion	Math Objective 4.02 Describe the distribution of data using median, range and mode.
I can create a line graph about the number of a particular bird banded over the last 10 years.	Line Graph	Math Objective 4.01 Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.
I can explain how adaptations help a bird survive in a particular habitat.	Essay Response Question	Science Objective 1.03 Observe and discuss how behaviors and body structures help animals survive in a particular habitat.
I can explain how living and non living things affect birds.	Essay Response Question	Science Objective 1.01 Observe and describe how all living and nonliving things affect the life of a particular animal including: Other animals, plants, weather, climate
I can classify and sort rocks and minerals.	Rock and Mineral Journal	Science Goal 2 The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

Learning Experiences:
Big Bald Bird Banding Station, Steve Longnecker (bird guest speaker), Nature Center, Bird Feeder Watch

Resources:
Read aloud Capture, possible magazines (Birding, Bird Watcher's Digest, Birder's World, Wild birds, Audubon Living Bird), internet sites: http://www.biokids.umich.edu/guides/
http://www.birds.cornell.edu/

Bird Guide Project

You will be creating a Fourth Grade Bird Field Guide. Each of you will research a North Carolina bird and create a study guide on that bird. We will take all of your bird guides and publish them in a fourth grade Bird Field Guide.

1. You will be chosen by a North Carolina bird and you will become the class expert about your bird.
2. You will be researching your bird using the internet, field guides, and other books.
3. You will take notes their physical description (size, color, unique characteristics, adaptations), habitat, geographic range, predators and prey (role in the food chain), and interesting facts.
4. You will edit and revise your field guide page until it is ready for publication. It must be quality work!
5. You will create an accurate illustration of your bird.