

# *Mi Vida Loca Cabin · May*

Spring · Water Science & Living Ecosystems

*A Two-Day Homeschool Adventure Guide for Families Staying at Mi Vida Loca*

Welcome to May at Mi Vida Loca! This guide pairs two days of real Broken Bow adventures with complete unit studies, lessons, and quizzes. Subjects this month: **Aquatic Biology · Conservation · Oklahoma History**.

<b>Month</b>	May · Spring
<b>Subjects</b>	Aquatic Biology · Conservation · Oklahoma History
<b>Day 1 Main Activity</b>	Broken Bow Lake Duck Tour + Kayaking
<b>Day 2 Main Activity</b>	ATV Adventure in Ouachita National Forest
<b>Home Base</b>	Mi Vida Loca Cabin · <a href="http://mycabinbrokenbow.com">mycabinbrokenbow.com</a>

## DAY ONE · Broken Bow Lake Duck Tour + Kayaking

Lunch today at **FishTales Winery & Bistro** — a local favorite.

**9:00 AM**

### **Broken Bow Lake Duck Tour — Amphibious Lake Exploration**

The Broken Bow Lake Duck Tour is one of the most unique educational experiences in southeast Oklahoma — part bus, part boat. These amphibious vehicles drive to the lake then drive directly into it for a floating lake tour. Learn about Broken Bow Lake's formation (created in 1969 when the Mountain Fork River was dammed by the Army Corps of Engineers), its 14,000 acres of surface area, and the diverse ecosystems it supports. Look for osprey, bald eagles, and great blue herons from the water.

**11:00 AM**

### **Kayaking on Broken Bow Lake — Water Science Lab**

Rent kayaks from Beavers Bend Marina for a self-guided paddle around the lake's quieter coves. Observe how the lake stratifies by temperature (warm surface, cold depths), how wind creates surface currents, and how aquatic plants provide oxygen and habitat. Challenge older kids to estimate the volume of the lake using its surface area and average depth. Younger kids: count bird species spotted from the water.

**12:30 PM — LUNCH**

### **FishTales Winery & Bistro**

A unique lakeside bistro with fresh local-inspired cuisine and a beautiful outdoor deck overlooking the water. Family-friendly with a kids menu and one of the most scenic lunch views in Broken Bow.

**2:00 PM**

### **Sunset Fishing at the Resort Ponds**

End Day One at Mi Vida Loca's stocked fishing ponds for a gentle, reflective close to the day. May evenings are perfect — warm but not hot, frogs calling, fireflies beginning their summer show. Talk through what you learned about aquatic ecosystems: how does a lake's food web compare to the river's? What do the fish in these ponds eat?

## DAY TWO · ATV Adventure in Ouachita National Forest

Lunch today at **Rock Bottom Boyz BBQ** — a local favorite.

**9:00 AM**

### **ATV Adventure — Ouachita National Forest Trails**

Book an ATV or UTV rental through Captain's Hideaway or Rugaru Adventures for a thrilling morning on the Ouachita National Forest trail system. As you climb ridgelines and descend into creek valleys, discuss how the Ouachita Mountains formed (pushed up by colliding tectonic plates over 300 million years ago — they run east-west rather than north-south, which is geologically unusual). Notice how vegetation changes with elevation.

**11:00 AM**

### **Insect Collection & Study — Ouachita Entomology**

May is peak insect season in the Ouachitas. After your ATV ride, take a slow walk with butterfly nets, magnifying glasses, and insect identification cards. The Ouachita Mountains host remarkable insect diversity: tiger swallowtail and spicebush swallowtail butterflies, Luna moths (Oklahoma's most spectacular native moth), lightning bugs, and dozens of native bee species. Insects make up roughly 80 percent of all known animal species on Earth.

**12:30 PM — LUNCH**

### **Rock Bottom Boyz BBQ**

Authentic low-and-slow BBQ from a local Hochatown pitmaster. Brisket, ribs, pulled pork, and housemade sides with real wood smoke flavor. No-frills, all-flavor.

**2:30 PM**

### **Rugaru Adventures — Zipline Canopy Tour**

Rugaru Adventures offers an exhilarating zipline tour through the forest canopy above Broken Bow Lake. This is physics in action: potential energy converting to kinetic energy as you zip, friction and tension in cable design, and the role of gravity. Ask guides about the engineering behind the zipline system — cable tensioning, safety harness design, and anchor point loads.

*Back at Mi Vida Loca — End your day at the resort community: swimming pool (seasonal), stocked catch-and-release fishing ponds, clubhouse with pool tables, children's playground, and beautiful walking trails.  
Tonight, complete the quiz together as a family! [www.mycabinbrokenbow.com](http://www.mycabinbrokenbow.com)*

## UNIT STUDY · MAY

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### *Aquatic Ecosystems: Lakes, Rivers & the Life They Support*

Subjects: Aquatic Biology · Conservation · Oklahoma History · Ages 6–16

#### LESSON ONE

A lake ecosystem is organized into distinct zones. The littoral zone is the shallow nearshore area where sunlight reaches the bottom and aquatic plants grow — this is the most biologically productive zone. The limnetic zone is the open water where sunlight penetrates but the bottom is too deep for rooted plants — phytoplankton photosynthesize here, forming the base of the open-water food web. The profundal zone is the deep dark cold bottom where bacteria decompose organic matter, recycling nutrients back into the water. Broken Bow Lake stratifies seasonally: in summer, warm lighter surface water floats above cold dense bottom water — which is why water released from the dam's deep outlets stays cold year-round.

#### LESSON TWO

The Army Corps of Engineers built Broken Bow Dam and created the lake between 1966 and 1969, flooding the original Mountain Fork River valley and displacing communities and farms that existed there. Like many large dams, it was built primarily for flood control, water storage, and hydroelectric power — but it also accidentally created one of Oklahoma's premier recreation and ecological resources. The cold-water trout fishery that developed below the dam was unintended; biologists recognized that the cold deep-water releases would support trout and began stocking the river. Today, the Oklahoma Department of Wildlife Conservation stocks the Mountain Fork with rainbow and brown trout throughout the year.

### *Entomology: The World of Insects and Why They Matter*

#### LESSON THREE

Insects are the most successful group of animals that has ever existed on Earth. There are approximately one million described insect species — roughly 80 percent of all known animal species. Their success comes from several adaptations: a rigid exoskeleton that supports their body and prevents water loss; wings (insects were the first flying animals, appearing 350 million years ago); metamorphosis, which allows larvae and adults to occupy completely different ecological niches without competing; and extraordinary reproductive rates.

#### LESSON FOUR

Insects provide ecosystem services worth an estimated 57 billion dollars per year in the United States alone. Pollination: roughly 75 percent of all flowering plant species depend on animal pollinators, primarily insects. Without bees, butterflies, moths, and other pollinators, most of our food system would collapse. Decomposition: beetles, flies, and insects break down dead plant and animal material, recycling nutrients back into the soil. The dramatic global decline of insect populations — estimated at 40 percent over the last 30 years — is one of the most serious ecological crises of our time.

### QUIZ · MAY · Aquatic Ecosystems: Lakes, Rivers & the Life They Support

1. What is the littoral zone of a lake?

- A) The deep dark bottom where bacteria decompose organic matter
- B) The open water where phytoplankton photosynthesize
- C) The shallow nearshore area where sunlight reaches the bottom and plants grow
- D) The surface layer of warm water in summer

**2. Why was Broken Bow Lake created?**

- A) To provide a home for rainbow trout
- B) To supply water to Oklahoma City
- C) For flood control, water storage, and hydroelectric power
- D) As a nature preserve for migratory birds

**3. Approximately what percentage of all known animal species are insects?**

- A) 25 percent
- B) 50 percent
- C) 80 percent
- D) 95 percent

**4. What ecosystem service do insect pollinators provide?**

- A) Decomposing dead plant and animal material
- B) Enabling roughly 75 percent of flowering plants to reproduce
- C) Controlling agricultural pests
- D) Aerating soil through burrowing

**5. What is the epilimnion in a lake?**

- A) The cold dense bottom water layer
- B) The warm lighter surface water layer that forms in summer
- C) The zone where rooted aquatic plants grow
- D) The layer just below the surface where fish feed

**6. The Ouachita Mountains run in an unusual direction. Which direction?**

- A) North to South like the Rocky Mountains
- B) East to West — geologically unusual for a mountain range
- C) Diagonally from northwest to southeast
- D) In a circular ring formation

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**Answer Key:**

**1. C 2. C 3. C 4. B 5. B 6. B**

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*We hope this adventure fills your family with wonder and curiosity. Every season in the Ouachita Mountains brings something new to discover. Mi Vida Loca Cabin · Broken Bow, Oklahoma · [mycabinbrokenbow.com](http://mycabinbrokenbow.com)*