# **McDuffie Environmental Education Center** School Outreach Programs



The McDuffie Environmental Education Center (MEEC) provides teachers a unique site to take students for a hands-on outdoor experience. Lessons address the dimensions of the Georgia Standards of Excellence in this diverse biologically rich area with activities available for PreK through seventh grade. The McDuffie Environmental Education Center provides students with stimulating, outdoor learning experiences about the ecology of our wildlife, water, soils, and forests and the stewardship of these important natural resources.

The McDuffie Environmental Education Center is open by reservation only. It is recommended that dates be booked well in advance in order to secure desired dates. Fees: \$5 per student

We offer accommodations and Adaptation of Performance Standards for Students with Disabilities based on information provided when reservations are made.

# <u>Seventh Grade – Life at the MEEC</u>

# WETLAND TRAIL

# S7L4, S7E1 PE7.3, PE7.5

Students walk the trail around the fishery ponds to the Blackwater Swamp. Students will search for evidence of interdependence between the animals and their environment and make inferences regarding balance within nature and the balance between the needs of nature and humans. Students will also draw conclusions about the impact of seasonal changes on the ecosystem.



#### **MICROSCOPE LAB**

# S7L1, ELAGSE7SL1

Students will review the proper use of microscopes by comparing and contrasting various prepared slides. Students will prepare slides using pond water and learn to examine and identify phytoplankton and zooplankton. Using the observations, they will assess the suitableness of the water to sustain the hatchery pond fry population.

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#### DICHOTOMOUS KEYS

#### S7L1, ELAGSE7SL1

Students will review the purpose and interpretation of dichotomous keys and use a dichotomous key to identify selected trees at the MEEC campus.

#### BACKYARD BASS

#### PE7.3, PE7.5, PE7.6, ELAGSE7SL1

Fish targets are arranged in the field. Each pair of students is provided with a rod and reel. Students take turns casting from a given line to "hook" the fish. Students document hits and misses and convert data into graph form to assess their accuracy. The activity can teach teamwork, data collection and interpretation, as well as allow practice of rod and reel casting skills.

#### DENDROCHRONOLOGY

#### S6E5, ELAGSE6SL1

Students will develop an understanding of tree ring dating principles by examining and comparing tree core samples. Students will determine the age of trees by ring count as well as analyze width between rings to differentiate between growth in wet and dry years. The interdependence of plants on the earth's varied seasonal changes will be emphasized.



#### MACROINVERTEBRATE STUDY

# SL4, ELAGSE7SL1

From stream-drawn water samples, students will collect, sort and classify macroinvertebrates using dichotomous keys. Since macroinvertebrate type and count are a stream water quality indicator, students will then use Adopt-a-Stream guidelines to make inferences about the health of the stream.

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# ARCHERY (NATIONAL ARCHERY IN THE SCHOOLS PROGRAM)

# ELAGSE7SL1, PE7.2, PE.7.3c, PE7.3d, PE7.5, PE7.6, ELAGSE7SL1

A certified instructor teaches the safety and technical basics of archery as specified by NASP. Students are then allowed to participate in shooting targets, scoring their attempts, and retrieving arrows. NASP promotes student education, physical education and participation in the lifelong sport of archery in an effort to inspire students to spend more time outdoors.

#### CUSTOMIZED SESSIONS

Depending on fish production, a tour of the hatchery building may be available upon request. A Kids Fishing Event may also be arranged as part of the MEEC experience.

#### WHEEL OF NATURE

# ELAGSE7SL1

Students participate in a game-style two-team activity. When it is his or her turn, a teammember spins a wheel to determine how much a question is worth. To obtain the points for his side, the student answers the given question. Questions are based on the MEEC curriculum and include habitat features, wildlife adaptations, and identification of animal pictures, pelts, sounds, offspring and tracks. Models and other audio visuals are used to bring questions to life. Team work is encouraged as rules allow students to confer on difficult questions. (Questions are adapted to grade/ability level.)

# **FISHING**

# LS2.A, LS4.B, HE7.5.e, HE7.5.f

Following an orientation on Ecosystems and how fish depend on their surroundings, adaptations, specialization of catfish receptors, reason for the hatchery, what humans need fish for, what the sport of fishing is and does for us and the safety and proper use of equipment the students will participate in the sport of angling. Students will be supervised by the instructor, staff, teachers and chaperones. Students will learn to bait a hook, cast, reel and hopefully catch a fish. If fish are caught measurements will be taken and depending on grade level student or adult will read off measurement and instructor will help student place their fish's measurements on a simple bar chart. Students will also learn to tally the number of fish caught.