

# PREPARING YOUTH TO COMPETE IN THE 4-H STATE MARINE ECOLOGY EVENT

*Below are some suggested strategies for  
preparing youth for the MEE.*

**1. Conduct actual field experiences.** Organize club field trips to local beaches, mangrove habitats, marshes, etc. To assist youth in learning the material:

- Utilize nature id guides try to identify the plants and animals of the area.
- Utilize any signage or static displays at these locations.
- Utilize or perform experiential activities from other curriculum resources.

But wherever you can - do the following...

**2. Utilize the resources and expertise of others to help you prepare youth.**

- Utilize existing natural resource areas and staff expertise in your region. (Are there national parks/reserves, wildlife refuges, state and county parks, etc. in your area?). They may be able to provide assistance through guided nature hikes, organism identification, and/or other hands-on learning activities related to what is covered by the MEE.
- Ask for the assistance of local Sea Grant agents. They may be able to assist in field identification techniques, hands-on learning activities, and/or provide information or guidance on educational resources. You can find out who your local agent might be by going to <http://www.flseagrant.org/>
- Find out if there is a Fish and Wildlife educator in your area that can assist your club in preparing for the MEE. Their education page can be reached at <http://myfwc.com/educator/>. Their website also contains a link to fish photos/pictures at <http://myfwc.com/marine/photo.htm> along with other information that might be helpful.
- There may be marine scientists in your area that are willing to assist you in some way. (Perhaps a visit to their research lab, a field site, or provide you assistance with collecting and identifying organisms, etc.).
- Try to find out if there is a "Coastal Master Naturalist" in your area that might be willing to assist youth in learning the materials. Master Naturalists are trained through a special public education program developed through the University of Florida. Participants complete 40 contact hours of instruction. For more information go to their website: <http://www.masternaturalist.ifas.ufl.edu/>

**3. Visit centers of learning such as aquariums, nature centers, museums, or other centers, etc.** These places may offer your club special tours, on-site assistance in organism identification, interactive learning technology, or perhaps help set up mock ME events.

Below are examples of "centers of learning" that have been reported to provide 4-H members and leaders with assistance in preparing for the Event. They may be able to provide group tours, behind the scenes tours, or even special rates to 4-H clubs/members. Remember it doesn't hurt to ask.

- Florida Aquarium (Tampa)
- Mote Marine Laboratory (St. Petersburg)
- Fishing Hall of Fame/IGFA (Dania - S. Florida)
- Sea World (Orlando)

There are many more of these marine science-learning centers around Florida. Please let us know if clubs have utilized any of the ones below and how they were used:

- Gulf Specimen Marine Laboratories (Wakulla County)
- Florida's Gulfarium (Okaloosa County)
- Clearwater Marine Aquarium (Pinellas County)
- The Clearwater Marine Science Center Aquarium (Pinellas County)
- Marine Science Center (at Ponce Inlet) (Volusia County)
- Miami Seaquarium (Dade County)
- Key West Aquarium (Monroe County)
- Florida Marine Research Institute (St. Petersburg)

Are there others that should be on the list? Although the sites listed below are not necessarily "learning centers" they may still provide opportunities to see real specimens:

- Salt Water Aquarium shops/pet stores
- Shell shops

**4. Have youth work in small study groups** - Have youth work in small groups mentoring and teaching each other. Have them go through the study guide CD of photos and "quiz" each other. Develop flash cards for MEE species with photos on one side and identifying characteristics on the other side. Use flash cards for multiple-choice questions. Perhaps have one group learn a section of the material and then teach/demonstrate this knowledge to others.

**5. Individual Study** - Provide youth with materials from the MEE website or have them conduct their own Internet search for the information. Find out from your county Extension agent if there are other individuals who are trying to prepare and let them quiz each other over e-mail or on the phone. Studying with somebody else is often more effective than going it alone!

**6. Develop mock ME events** at school facilities, churches, civic centers, Extension offices, etc. These are set up in a similar fashion as the MEE. Here are some tips on how to do this:

- For the identification sections, use real specimens wherever possible (versus photos). Real specimens offer a truer view (3D) of important distinguishing characteristics versus a flat photograph that may "hide" them. If real specimens are not available, try to utilize a variety of photographs/pictures of that species so that different perspectives are studied.
- Create answer sheets similar to real ones used and give practice id sessions. Go over answers with youth and discuss reasons for wrong as well as right answers.
- For developing a habitat ID section use photos of organisms WITHOUT the background if possible. Have youth focus on the organism itself by looking at body shape, coloration, mouth location, type of fins, appendages, symmetry, and other adaptations. How do these adaptations help the organism survive in their habitat? Discuss these adaptations as a group and how they relate to the habitat. This may be more meaningful than just trying to memorize name with habitat. For example - a very streamlined fish with a deeply forked tail may be found in more open ocean regions than one that is brightly colored with a flat edged tail. Why?
- Be careful if you collect any organisms. Permits may be required. If you have not already, you might want to consider getting a collector's permit through the Florida Marine Science Educators Association Collectors Permit Workshops. For more information on these workshops and the organization go to <http://www.fmsea.org/>
- Check with local classroom educators/schools to see if there is a marine science teacher that can either assist you or provide resources/specimens for a mock event.
- Create a marine bingo game by copying some of specimens onto a "bingo board" and making chips. Call out name and see if youth can match what they have on their bingo sheet.

As youth prepare for the MEE it is also important to remember that it is not just the content you want them to learn but life skills as well. As much as possible try to incorporate activities that will involve communication, critical thinking, leadership, teamwork, etc. And remember - Whether youth win or not at the competition, they are all winners for going through the process of getting there!

If you have additional ideas or suggestions concerning how youth can prepare for the MEE or want to share any of your tried and true "techniques" please contact Karen Blyler, 4-H Marine Education Coordinator in Gainesville at kblyler@ufl.edu or call her at 352-846-0996, ext 246.

Thank-you!

