

Backyard Biologist

1. **DESCRIPTION**: Teams will be assessed on their knowledge of living organisms that they may encounter in their own backyard. **In 2019, the focus will be on trees, plants, and insects.** Teams will be required to identify organisms from a provided list and know about the habitat and conditions required for growth of the organisms.
2. **ESSENTIAL STANDARDS ALIGNMENT**: 2.L.1, 3.L.2, 6.L.1
3. **TEAM OF UP TO**: 2
4. **MAXIMUM TIME**: 60 min.
5. **TEAMS**: Must bring writing instruments. Teams may also bring up to 2 commercially produced field guides and/or 2 1-inch, 3-ring binders with pages in any form, from any source, contained in page protectors. (This means 2 guides, or 2 binders, or a guide and a binder). Actual plant & leaf samples are allowed in the binders as long as they are in plastic sheet protectors. No actual insect parts are allowed in the binders. Teams may also bring up to two hand lenses.
6. **EVENT LEADERS**: Will provide a hands-on event with all necessary items, objects, materials, questions, and response sheets for participants to complete stations. Examples include but are not limited to: drawings, scenarios, questions, leaves, bark, seeds, photographs, and specimens.
7. **SAFETY REQUIREMENTS**: None
8. **IMPOUND**: No
9. **THE COMPETITION**: This event will be run in a station format. Teams will rotate through stations that assess any or all of the following topics:
 - a. Identification of specimens, by common name, from the Official Specimen List, including which are NC official state symbols. No more than 50% of the test will be identification of specimens.
 - b. Plants and trees
 - i. The structure and function of roots, stems, leaves, seeds, and flower parts.
 - ii. The distinct stages of the life cycle of seed plants.
 - iii. The concepts of gravitropism, phototropism, thigmotropism, & hydrotropism.
 - c. Horticulture
 - i. Basic properties (capacity to hold water) and components (sand, clay, and humus) of soil and how these determine the ability of soil to support the growth of many plants.
 - ii. What is needed to grow a successful garden and harvest food to eat, including how plants react in different conditions (no light, too much/too little water, addition of fertilizer, etc).
 - d. Insects
 - i. Basic characteristics and description of habitat.
 - ii. Eating habits, and life cycles.
 - iii. Importance to the ecosystem and impact on humans or human activities.
10. **SCORING**: Points will be awarded for the accuracy of responses. Ties will be broken by the accuracy or quality of responses to pre-selected questions chosen by the event leader.
11. **EVENT RESOURCES**:
See the Event Resources tab on our website at www.sciencenc.com for instructions, videos and more.