

Getting Started
with
California Envirothon:

A GUIDEBOOK
FOR TEACHERS

2017 REVISION

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(*To learn more about California Envirothon, please visit our website: caenvirothon.com)

Introduction: The California Envirothon

What

The Envirothon is an outdoor natural resources competition for high school students grades 9-12. Students work in teams in the field to answer questions related to soil, forestry, aquatics, wildlife, and includes an oral presentation on a scenario featuring the current environmental theme (e.g., groundwater, watersheds, biodiversity, renewable energy, invasive species, climate change, etc.). Working collaboratively as a team, students learn skills such as critical thinking and problem solving to arrive at solutions to specific real world environmental problems. The California Envirothon (CAE) promotes analytical thinking, stewardship, and empowers youth to take responsibility for the conservation of natural resources for future generations.

Why

The Envirothon encourages, motivates, and inspires students to become more competent, proficient, and aware of the environment and natural resources conservation. The Envirothon was begun over 40 years ago by a group of Pennsylvania Soil and Water Conservation Districts and parents who were concerned about the lack of natural resources education in their schools. California began its program over 25 years ago. The national Envirothon was added in 1988.

How

High school team sponsorship is provided by a local Resource Conservation District (RCD). The CAE Steering Committee, in partnership with RCDs, cooperating agencies, organizations, educators, community and private interest groups, plan and organize the annual spring California Envirothon competition.

When

The CAE competition is usually held in the spring (usually April) to allow students to have much of the school year to prepare. The winning team advances to the National Conservation Foundation-Envirothon which is held in July.

Overview of Station Testing

- *Teams will be evaluated in 5 subject areas: soil, forestry, aquatics, wildlife, and a current environmental issue particular to that year.*
- *Each station's testing is comprehensive. Stations will be 30-45 minutes in duration, including a brief orientation at each station.*
- *In the case of a 1 year event, the current scenario station will include a preliminary oral component in which each team will get the chance to present. Teams will bring presentation materials with them on the day of the event (no digital materials may be used).*

The following list includes examples of some topics that teams may be tested on at each station. For more information on station study material, please visit the station-specific pages on caenvirothon.com

Aquatics/Hydrology

- aquatic ecology
- water chemistry
- plants, aquatic life (e.g., macroinvertebrates), and fish and wildlife living in, or around water
- water quality
- riparian habitat
- wetlands
- conservation,
- water delivery

Soils and Land Use

- classification
- profiles
- soil characteristics
- soil surveys
- site suitability/current issues
- erosion/sedimentation
- conservation/best management practices
- soil health

Wildlife

- identification
- behavior
- habitat characteristics
- food/diet
- diseases
- species rules and regulations
- management

Forestry

- forest ecology
- tree identification
- insects
- diseases
- timber managements
- improvement of timber stands
- forest and multiple-use management
- fire prevention and fuel load management
- climate impacts

Current Environmental Issue

The state hosting the annual NCF-Envirothon competition determines the following year's environmental theme for the current environmental issue. Topics which have been chosen in the past include:

- Nonpoint Source Pollution/Watersheds
- Endangered Species
- Mining
- Air Pollution
- Wetlands
- Agricultural Soils and Water Conservation Stewardship
- Stormwater
- Loss of Farmland Due to Urban Encroachment

All themes reflect timely, complex, and often controversial environmental topics.

The CAE Steering Committee provides pertinent information on the study concepts which are linked to state educational standards. It also provides additional resource materials to assist the teams preparation and study on the CAE website.

The CAE has an established network of partnering resources and environmental agencies, academia, RCDs, nonprofit organizations, and the private sector with expertise and knowledge regarding the chosen current environmental issue. They are agreeable and prepared to provide relevant resource materials, financial assistance, professional expertise, and often volunteer as judges for the annual event (e.g., station tests, drafting current issue scenario, etc.).

Building a Team

Professionals and Resource Specialists

Resource Conservation Districts are encouraged to support local teams in a variety of ways: organize learning resource workshops, mentor teams, and identify key resource professionals, agencies, and organizations who may provide technical and/or financial assistance. Of important note, any RCD can support any team; they do not have to be local teams.

We recommend contact with resource professionals to elicit their support and willingness to meet with your team to share knowledge and provide training. A copy of the study concepts and learning objectives should be provided to them to familiarize them about the requirements for testing of the competition including the current issue, and field station and oral tests.

Resource Conservation Districts

Resource Conservation Districts (RCDs) are special districts in California that have been set up under law to act as locally governing agencies with the purpose of implementing projects on public and private lands, and educating others about resource conservation. (www.conservation.ca.gov)

RCDs are responsible for providing additional materials on the five disciplines. Study concepts are found online at the CAE website (caenvirothon.com). Member RCDs must have a contact person in its office or district and be included on CAE Steering Committee's list. The Steering Committee must be notified of any changes.

The first step for a RCD to pursue team sponsorship is to contact the high schools within their district to make an appointment with the science, agriculture, or Advanced Placement (AP) advisors. It is ideal to promote visibility of your RCD's participation in the CAE via public awareness outlets such as newsletters, local press releases, or website announcements. Moreover, the CAE website may stimulate interest and include your efforts.

Team Advisors

All competing teams pay a registration fee for the annual CAE competition as determined by the Steering Committee. It is the responsibility of the RCD to help its teams raise funds to attend the competition. The RCD must coordinate with the advisors on this financial commitment. It is important for member RCDs and advisors to be knowledgeable of the Rules and Regulations of Envirothon and any other policies or directives of the CAE Steering Committee.

Each team must consist of five students and one adult advisor. If the team is coed, a male and female advisor must attend. The students must be enrolled in grades 9-12. If at any time of the event, teams change to less than five, the team may still attend and participate, but not allowed to place. The advisors may be teachers, resource professionals, parents, or anyone teaching a team to attend the event.

Advisors are responsible for the team's conduct at the event and transportation to and from the event's location. Also applicable are any additional instructions or requirements set forth by the CAE Steering Committee to ensure effective coordination, communication, and orderly implementation of the event.

Checklist for Building a Team

- ❑ Choose team members and advisors. (Coed teams must have male and female advisors)
- ❑ Locate your local Resource Conservation District to request any information needed to compete in the annual CAE. Check the California Association of Resource Conservation Districts website for locating your RCD (www.carcd.org)
- ❑ Complete and submit pre-registration form online before the designated deadline in the fall (1 pre-registration form per school)
- ❑ Campaign for support from your school, local businesses, and/or RCDs.
- ❑ Research study concepts posted on the CAE website (www.caenvirothon.com) and other state envirothon resources
- ❑ Contact resource professionals in your area willing to conduct workshops related to topics covered in the study concepts
- ❑ Submit final registration forms (including registration fees) for each team online before the deadline in the spring
- ❑ Register team alternates or volunteers online before the spring deadline
- ❑ Each team member must bring proof of health insurance waiver and media release form to the annual event
- ❑ Check www.caenvirothon.com often for announcements and communication regarding the event
- ❑ Work hard and have fun at the event!