



2020 Virtual Envirothon Events

Testing, Training, and Oral Presentation Recommendations

Despite the challenges of the COVID-19 pandemic, there were 17 states and provinces that were able to host an online Envirothon event in the spring and summer of 2020. Some of these events were official competitions, others were informal challenges, along with social media engagements and training activities. These states and provinces gained valuable experience conducting distance education and engagement through online platforms that can help inform your plans for conducting a virtual Envirothon competition.

I. 2020 Envirothon Event Overview

Online official team-based competition (9):

- Connecticut: Google Classroom
- Florida: Google Forms, Google Slides, Zoom (*for Welcome/Awards*)
- Idaho: QuestionPro, Google Slides, Zoom, YouTube (*for Training Videos*)
- New Mexico: Website and Zoom
- New York: Google Classroom
- Ohio: Zoom and Google Forms (*with Timify.me add on*)
- Oregon: Google Slides, Various platforms for OP Video submissions, Zoom (*for Awards*)
- Rhode Island: Zoom and Google Forms
- Utah: Zoom and Qualtrics

Online Informal Challenge (5):

- Massachusetts: OP Challenge uploaded to YouTube
- Kansas: Multiple choice Quia.com (*for testing*), Excel (*for organizing teams*), Google Slides & Facebook (*for promotion*)
- Virginia: ClassMarker

- Pennsylvania: Google Forms
 - South Carolina: Google Forms
- Social media engagement or other activity (3):
- Ontario: YouTube, iNaturalist, Social Media, Google Forms
 - Texas: Facebook
 - Wisconsin: Facebook

II. 2020 Platforms

The following is a summary of findings and feedback about the **major** testing and training platforms used for the 2020 Virtual Envirothon Events:

Google Forms

<https://www.google.com/forms/about/>

Recommended by: Pennsylvania Envirothon, South Carolina Envirothon, Rhode Island Envirothon, Ontario Envirothon, Florida Envirothon, Ohio Envirothon (with *timify.me* [now [Quilgo](#)] add-on to monitor time)

Description: Easy-to-build forms for constructing tests, with options for different types of questions, automatic and manual grading, and ability to include pictures and video

Cost: Free

Overall Ease of Use: Easy

Features:

- Multiple Choice Questions
- Multiple Select Questions (more than one correct answer)
- Drop down menu questions
- Short Answer Questions
- Essay Questions
- File Uploads (with restrictions – files are uploaded to the test creator’s Google Drive, and respondents must be signed into Google to upload files)
- Automatic grading for Multiple Choice, Multiple Select, and brief Short Answer questions (one or two words)

- Manual grading within Google Forms for Short Answer and Essay questions
- Ability to provide immediate feedback to students for automatically graded questions
- Ability to send out grades via email after manually grading questions
- Partial Credit available for manually graded questions

Advantages:

- Most students are familiar with Google Forms
- Scoring for Multiple Choice and very specific short answer can be done automatically
- Feedback from automatic scoring can be made immediately available to the students or released when you choose
- Short Answer/Essay Questions must be graded within the program manually, but will be automatically included in the score (Google Forms will calculate team's final score)
- Partial credit available for manually graded questions
- Test results can remain private until released via email to participants
- Statistics and data can be easily generated and exported to Excel
- Students do not need a special account to access (just a regular email address)
- Images can be included in questions (good for identification questions, et cetera)
- Multiple Collaborators can be added per form/test for multiple test writers and scorers

Disadvantages:

- Does not allow for timed tests unless you use an add-on program (Ohio Envirothon used timify.me add-on to monitor test time - <https://quilgo.com/education>)
- No built-in way to monitor students to ensure rules are being followed
- If auto-grading short answer, answers must be exact or they will be counted as incorrect (including misspellings, different spacing, et cetera)
- Does not have ability to receive Oral Presentation submissions without participants signing into Google
- Some agencies cannot use Google services

Google Classroom

<https://edu.google.com/intl/en/products/classroom/>

Recommended by:

Connecticut Envirothon, New York Envirothon

Description:

Online learning management system with access to most Google services, including Forms for test creation, YouTube for video uploads, and Google Meet for video conferencing.

Cost:

Free for qualifying educational institutions, others may be eligible for G Suite for Nonprofits

(<https://www.google.com/nonprofits/offerings/apps-for-nonprofits/>)

Overall Ease of Use:

Easy

Features:

- Central dashboard viewable by all students to post announcements
- Training materials and tests can be organized by subject
- Access to Google Forms and other Google services

Advantages:

- Central location for training and testing materials
- Most students are familiar with Google services
- Reference materials can be made simultaneously available with tests (for example, identification keys)

Disadvantages:

- Like with Google Forms, it is not possible to time a test without additional add-ons
- No built-in way to monitor students to ensure rules are being followed
- Some agencies cannot use Google services
- Unable to add sound files (for wildlife calls)
- Students must have an email address to sign in (Gmail addresses work best)

Zoom

<https://zoom.us/>

Recommended by:

Rhode Island Envirothon (breakout rooms for testing, awards ceremony), New Mexico Envirothon (oral presentation and awards ceremony), Oregon Envirothon (awards ceremony), Florida Envirothon (welcome and awards), Ohio Envirothon (oral presentation and awards), Idaho Envirothon (welcome, platform

for teams to confer during testing, recorded station training, awards), Utah Envirothon

Description: Online meetings, webinars, and groups with video and audio capability for hosts and participants.

Cost: Varies, depending on plan and features - <https://zoom.us/pricing>

Overall Ease of Use: Easy

Features:

- Video conferencing platform
- Meeting or Webinar setups with different features
- Option for breakout rooms for smaller groups
- Potentially large capacity for meeting/webinar (depending on plan)

Advantages:

- Video and audio capability
- Screenshot capability
- Oral Presentations can be done live, with all students and judges present and opportunity for Question and Answer session following presentation
- Can use breakout rooms for teams to confer; team captain can leave breakout room to ask questions to station leaders/test writers, and then return to breakout room
- Breakout rooms can be set to close at a predetermined time
- Hosts (station test writers/monitors) are able to visit breakout rooms at any time to monitor students' activity

Disadvantages:

- Requires stable internet connection and adequate bandwidth for all participants, particularly for video
- Depending on your feature requirements, can be expensive

YouTube <https://www.youtube.com/>

Recommended by: Ontario Envirothon, Massachusetts Envirothon, Idaho Envirothon (recorded station training)

Description: Platform for video uploads and viewing

Cost: Free

Overall Ease of Use: Easy

Features:

- Pre-recorded videos can be set to become immediately available, or scheduled through YouTube Premier

Advantages:

- Easy to host videos
- Videos can be public or private
- Most students are familiar with YouTube
- Could be used for recorded training sessions or student oral presentations
- Recorded training sessions made publicly available may help to market your Envirothon program and provide additional resources for Envirothon advisors

Disadvantages:

- If used for Oral Presentation, no opportunity for Question and Answer session with judges
- Students or trainers must have recording equipment (which could just be a smartphone)

ClassMarker

<https://www.classmarker.com/>

Recommended by: Virginia Envirothon

Description: Online testing platform

Cost: Varies, depending on plan and features
<https://www.classmarker.com/online-testing/price/education/>

Overall Ease of Use: Easy

Features:

- Variety of question types (with limited short answer/essay capability)
- Automatic scoring
- Ability to place time limits on tests
- Ability to include images in test questions

Advantages:

- Ability to give partial credit
- Built-in test timer

Disadvantages:

- Limited short answer/essay question capability

- Does not allow file uploads from participants
- No built-in way to monitor students to ensure rules are being followed

Google Slides

<https://www.google.com/slides/about/>

Recommended by: Oregon Envirothon (testing), Florida Envirothon (student oral presentations), Idaho Envirothon (student poster presentations), Kansas Envirothon (*event organized and hosted by Horton High School FFA chapter*)

Description: Presentation program similar to PowerPoint offer by Google

Cost: Free

Overall Ease of Use: Somewhat Easy

Features:

- Create and share slideshow presentations with multiple collaborators

Advantages:

- Each team has their own unique link
- Free for students to access, who may not have access to Microsoft PowerPoint

Disadvantages:

- No automatic scoring
- Sharing settings must be specific if submitting a presentation via a link

Question Pro

<https://www.questionpro.com/survey-software.html>

Recommended by: Idaho Envirothon

Description: Survey platform that can be used to create quizzes

Cost: Free and subscription versions - <https://www.questionpro.com/pricing/>

Overall Ease of Use: Easy

Features:

- Many types of questions available (Multiple Choice, Multiple Select, Short Answer, et cetera)
- Responses can be exported to Excel

Advantages:

- Easy to use platform – similar to Survey Monkey, but easier to construct questions

Disadvantages:

- No autoscoring available for free version
- Free version will only let you send out one email at a time with the survey link (Idaho Envirothon found a work around by emailing it to an administrative account, and then email the participants the link from that email.)

Quia Web

<https://www.quia.com/quicktour.html>

Used by:

Kansas Envirothon (*event organized and hosted by Horton High School FFA chapter*)

Description:

Online platform for learning games, quizzes, and testing

Cost:

\$99/year - <https://www.quia.com/subscription/>

Overall Ease of Use:

Somewhat easy to somewhat difficult

Features:

- Learning Games
- Online Testing

Advantages:

- Several question types for quizzes
- Automatic grading of most questions

Qualtrics

<https://www.qualtrics.com/>

Used by:

Utah Envirothon

Description:

Survey platform

Cost:

Free (with limited features) and subscription versions

Overall Ease of Use:

Somewhat easy

III. Considerations for Rule Compliance

Please note that not all of these options may be possible depending on your local regulations and recommendations on group gatherings. Please consult your state/provincial health guidelines for schools and in-person group limits.

- In-person proctor – Team Advisor or impartial third party
 - Only feasible if students are able to gather in person as a team
- Virtual proctor – Team Advisor or impartial third party
 - Can be used if students are not able to gather in the same location
 - Proctor may join on Zoom call, Google Meet, or whichever platform students are using to communicate with each other
 - If all students have their cameras turned on, proctor can monitor what the students are doing to ensure no reference materials are being used
 - Proctor unable to monitor any activities offscreen
 - Used by Rhode Island Envirothon and Idaho Envirothon with Zoom breakout rooms
- Recording of student meetings
 - To eliminate the need for a proctor to be present for the entire testing period, students may be required to record their virtual meeting and submit it for review if concerns arise
 - Requires considerable storage space either on a local computer or in the cloud
 - Used by New York Envirothon
- Add-on programs to monitor internet usage
 - Available with various features and varying costs
 - May only work for certain browsers or certain platforms
 - Unable to monitor cell phone usage
- Question structure
 - Questions on tests may be designed so that answers are not easily searchable on the internet
 - Application questions are a good option for this
 - This does not necessarily mean that your questions must be short answer – application questions can be multiple choice as well
- Timed tests
 - If students must complete a test in a certain amount of time, that limits the potential for looking up answers (as it can be a time-consuming process)

- Test structure
 - In some platforms, tests can be designed so that they must be completed in sections, and students cannot return to a previous section, thus limiting the ability for students to look up the answers to all the questions they didn't know at the end of the test
 - Used by Florida Envirothon
- In-depth questions for Oral Presentations
 - If students are allowed to use outside resources (internet or study materials) to prepare for the Oral Presentation, judges can ask in-depth and detailed questions to make sure the students actually understand the material instead of copying directly from a resource