

BEARSO TOURNAMENT GUIDE



For tournament personnel, event supervisors, and coaches

Lessons learned from our tournament and tips for running events during a virtual season

Written By: Cameron Brown, Allen Chang, Jason Chang, Timothy Elnitiarta, Peter Hung, Eric Ma, George Sun

Please direct all questions and comments to: peterhung@socalscioly.org

Written for the 2020–2021 season. Last edited January 6th, 2021

Table of Contents

Table of Contents	2
Overview	4
Links to Event-Specific Headings	5
Major Differences	6
Events and Schedule	6
Participant Communication	7
Allowed Participant Resources	7
Note Sheets	7
Binders	8
Academic Integrity	8
Administration of Tests	8
Materials	9
Testing Platform	9
Awards Ceremony	9
Medals	10
Budget	10
Tournament Director	11
Roles and Responsibilities	11
Creating and Setting Up the Web Page on Scilympiad	11
Communication with Event Supervisors	11
Communication with Coaches	11
Google Forms	12
Video Calls	12
Event Modification Summaries	12
Scoremaster	22
Tasks	22
Finalizing Scores	22

Common Mistakes to Look Out For	23
Event Supervisors	24
Roles and Responsibilities	24
Developing Your Event	24
Administering the Event	25
Monitoring Scilympiad Chat	25
Grading Exams	26
Things to look out for	26
Video Calls	26
Google Forms	26
Event Modification Summaries	26
Team Coaches	47
Video Calls	47
Event Modification Summaries	47
Participants	54
Clarification on Allowed Materials	54
Scilympiad Account Setup	54
Test Taking in Scilympiad	54
Video Calls	55
Event Modification Summaries	55

Overview

In light of the pandemic, National Science Olympiad has developed new models of running Science Olympiad tournaments for the 2020–2021 academic year that enable flexibility for tournaments and allow teams to have a good experience no matter how their local situations may evolve. These three models of Science Olympiad Tournaments are: **The Gold Standard** (an in-person, single-location tournament), **Satellite SO**, and **mini SO**.

The **Satellite SO** tournament is one of the two new models and it allows Science Olympiad to take place if mass gathering at the tournament host site is not an option but participants can gather at their school. This could be due to federal or local regulations, comfort level and rules by the hosting institute, travel restrictions by districts of participating schools, etc.

The **mini SO** tournament is the other new model and it allows Science Olympiad to take place even if participants are remote learning from home.

In both of these new models, tournament directors continue to curate and provide content (through test questions and graders) while each team will compete either at their home school under the supervision of their team coach or at home.

Each tournament should use the same model for *all* teams competing. This means tournaments should survey the situations of all teams for input while deciding which format to run. This ensures the most teams are able to participate and fairness for participating teams.

BEARSO Invitational was the first ever mini SO tournament and its goal was to test the new model of tournament, the implementation of the various alternate events, and the various platforms like Scilympiad (for registration, test-taking, and scoring) and SkyCiv (for Digital Structures, the Satellite SO and mini SO replacement event to Boomilever).

This document provides lessons learned from BEARSO as well as tips and examples on how to run mini SO and Satellite SO tournaments.

Links to Event-Specific Headings

Event	Tour. Dir.	Event Sup.	Coaches	Participants
Anatomy & Physiology B/C	Link	Link	Link	Link
Astronomy C	Link	Link	Link	Link
Booilever B/C	Link	Link	Link	Link
Chemistry Lab C	Link	Link	Link	Link
Circuit Lab B/C	Link	Link	Link	Link
Codebusters B/C	Link	Link	Link	Link
Crime Busters B	Link	Link	Link	Link
Cybersecurity C	Link	Link	Link	Link
Density Lab B	Link	Link	Link	Link
Designer Genes C	Link	Link	Link	Link
Detector Building C	Link	Link	Link	Link
Digital Structures B/C	Link	Link	Link	Link
Disease Detectives B/C	Link	Link	Link	Link
Dynamic Planet B/C	Link	Link	Link	Link
Elastic Launched Glider B	Link	Link	Link	Link
Experimental Design B/C	Link	Link	Link	Link
Experiment & Data Analysis B/C	Link	Link	Link	Link
Food Science B	Link	Link	Link	Link
Forensics C	Link	Link	Link	Link
Fossils B/C	Link	Link	Link	Link
Game On B	Link	Link	Link	Link
Geologic Mapping C	Link	Link	Link	Link
Gravity Vehicle C	Link	Link	Link	Link
Gravity Vehicle Design B/C	Link	Link	Link	Link
Helicopters B/C	Link	Link	Link	Link
Heredity B	Link	Link	Link	Link
Machines B/C	Link	Link	Link	Link
Meteorology B	Link	Link	Link	Link
Mission Possible B	Link	Link	Link	Link
Mousetrap Vehicle B	Link	Link	Link	Link
Ornithology B/C	Link	Link	Link	Link
Ping Pong Parachute B/C	Link	Link	Link	Link
Protein Modeling C	Link	Link	Link	Link
Reach for the Stars B	Link	Link	Link	Link
Road Scholar B	Link	Link	Link	Link
Sounds of Music C	Link	Link	Link	Link
Water Quality B/C	Link	Link	Link	Link
Wright Stuff C	Link	Link	Link	Link
Write It Do It B/C	Link	Link	Link	Link
Write It CAD It B/C	Link	Link	Link	Link

Major Differences

Events and Schedule

Due to the constraints of Satellite SO and mini SO model, some events have to be modified and/or replaced. In the section below, we have listed the events that we recommend based on our experience at BEARSO. Note that for Satellite SO, hands-on activities may be run, as opposed to mini SO, where hands-on activities may not be possible.

Division B					
Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Crime Busters	Disease Detectives	Food Science	Anatomy & Phys.	Dynamic Planet	Codebusters*
Exp. & Data Analysis*	Meteorology	Game On	Circuit Lab	Heredity	Density Lab
Ornithology	Write It CAD It*	Reach for the Stars	Road Scholar	Machines	Fossils
					Water Quality
Self-Scheduled: Digital Structures*, Mission Possible, Mousetrap Vehicle					
Self-Submitted: Helicopters*					

Division C					
Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Forensics	Exp. & Data Analysis*	Chemistry Lab	Machines	Anatomy & Phys.	Codebusters
Fossils	Geologic Mapping	Designer Genes	Protein Modeling	Astronomy	Disease Detectives
Write It CAD It*	Cybersecurity*	Dynamic Planet	Water Quality	Circuit Lab	Ornithology
Self-Scheduled: Detector Building, Digital Structures*, Gravity Vehicle, Sounds of Music					
Self-Submitted: Helicopters*					

* Replacement events that are not in the rules manual

For a more complete schedule, see the sample schedule [here](#).

Tournament Directors should release the schedule early in the tournament season as they normally do. The schedule should follow the schedule of a traditional tournament (6 time blocks) with the following exception: instead of breaking teams into blocks of about 10, the time for an event should be the same for all teams at that tournament. The traditional schedule splits up the teams into groups of 10 due to physical constraints. With this constraint removed in the Satellite SO and mini SO formats, it is much better to have all teams competing for a given event at the same time to ensure testing conditions are as similar for all teams as possible.

At BEARSO, events were run between a period of 6 hours - from 8:00 AM ~ 2:00 PM PT, or 11:00 AM ~ 5:00 PM ET. To accommodate for Hawaiian or Alaskan teams, three additional blocks were added.

Participant Communication

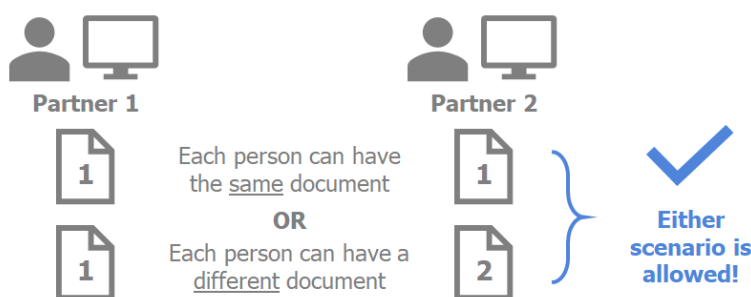
Participants can communicate through the provided chat box in Scilympiad. This chat box enables communication with their partner(s) and the Event Supervisors. Additionally, it is recommended that students can use any other platform for communication (such as Zoom, Discord, FaceTime, etc.). This may be encouraged for events such as Game On or Codebusters.

Because this was a mini SO tournament, students were not allowed to be in the same room or share materials physically. At Satellite SO tournaments, students are allowed to be in the same room and share materials.

Allowed Participant Resources

Note Sheets

Some event rules list that “Each participant may bring 1 sheet of paper”, while others list that “Each team may bring 1 sheet of paper.” Questions arose as to whether this meant materials could be different between partners. For both methods, students can either have the same document or have different documents:



Binders

Similar to note sheets, students should each have a copy of the binder. In addition, the binders

each student can have may be different or the same.

Academic Integrity

Academic integrity is very important to online testing competitions. There are various strategies BEARSO used to prevent academic infringement:

1. **Scilympiad Out-Browser-Window Tracking** — The Scilympiad testing platform provides Event Supervisors with a summary of how long the student was outside of the testing window. This can allow Event Supervisors to determine whether a student may have been accessing materials outside of what was allowed. Obviously for some events, such as Write It CAD It, where students must access CADing software, this measurement was not useful. However, including this basic metric can still help reduce academic dishonesty, as the number of people willing to cheat may decrease if they see a large and notable out-of-browser timer.
2. **Including Deeper Thinking Questions** — Including questions that require a heavy amount of thinking, rather than simple memorization. This helped to maintain academic integrity by making it more challenging for students to quickly look up something outside of the testing window.
3. **Using Older, Unsearchable Resources** — Especially for identification events, materials were picked from older, unsearchable textbooks, which made it harder for students to reverse image search identification searches.

Administration of Tests

In the Satellite model, the team coach who completed the online training module will supervise the participants for all events, with the possible exception of the engineering events, and also provide any needed information to the tournament. The team coach is responsible for the safety, proctoring, and accurate reporting of scores. With the exception of the engineering events in a Split Satellite Model, Tournament Personnel are not allowed to visit the school sites to administer or help with the events.

In the case that social distancing policies do not need to be practiced for the participants, the partners can sit next to each other and take the test together. However, if social distancing is required for partners, it is recommended that a copy of the test is provided for each partner or that both participants have their own digital devices so they can both see the test at the same time.

In the mini SO model (for tournaments similar to BEARSO), participants must compete from their own homes in order to be equitable to all teams. Students will take the test using the Scilympiad platform and communicate with their partner through allowed methods, such as Scilympiad's chat function, Zoom, Discord, or FaceTime.

Materials

In the mini SO or Satellite SO formats, many of the events will be run without the materials needed in traditional tournaments. In the case that materials are needed, the list of materials should be provided to the team coach ahead of time so they have time to obtain and/or prepare all the necessary materials.

Note: Per National Science Olympiad's rules, tournament personnel must not provide physical materials to the teams.

Testing Platform

There are many platforms available for administering the tests. Tournament Directors may want to consider the availability, familiarity, and cost of each platform when deciding. BEARSO used Scilympiad because it is free and it is a platform that was custom-built for Science Olympiad with everything that is needed to run a mini SO and Satellite SO tournament. Scilympiad also has the benefit of being used by 135 tournaments (25% of all tournaments) in the 2019-2020 season and has been well-tested for the past 5 years.

Google Forms can additionally be used as a simple method for uploading files or taking tests. However, Google Forms does not have the functionality that Scilympiad has for hosting Science Olympiad tournaments, such as creating scoresheets and managing teams. Also, there are issues with Google Forms being used to track when students start and stop a test, as students can exploit the source code of the page to make it appear as though they never officially started the test.

Some events, such as Digital Structures and Write It CAD It, may require students to use other platforms, such as SkyCiv and OnShape.

Awards Ceremony

In the mini SO and Satellite SO formats, an in-person awards ceremony is not expected. However, Tournament Directors may choose to host an awards ceremony online. The medals and trophies will be mailed to the teams.

The BEARSO awards ceremony was held live on YouTube publicly the Saturday after competition day to allow proper time for test grading, score checking, and preparing the awards ceremony presentation. The livestream amassed over 1,636 live viewers at its peak, showing the need for proper infrastructure to run and showcase the awards ceremony. The livestream featured, in order:

1. **Individual participant videos**, showcasing the thoughts of individual competitors on the BEARSO competition
2. **Inspiration Event Supervisor journey & acknowledgements**, showcasing people who have contributed to the BEARSO project while playing the story of one Event Supervisor in

the presentation background

- 3. Welcome from the Tournament Director/CEO of Science Olympiad**, to introduce participants into the livestream

- 4. Awards**

At BEARSO, a corresponding awards spreadsheet was used in parallel to the youtube livestream. Competitors may use this sheet to keep track of past event scores while watching the youtube video for a live version of the results. A sample copy of the BEARSO spreadsheet can be found [here](#), and a blank version can be found [here](#). A replay of the YouTube livestream can be found [here](#).

In Scilympiad, there is a PowerPoint generator to make creating the awards presentation easier. Additionally, pre recording the awards ceremony and [premiering it on YouTube can be helpful](#).

Medals

Tournaments can decide the number of medals to give out. More information about ordering awards and trophies can be found [here](#). This year, Maxwell, the medal provider is providing the service to mail medals to each school directly so that Tournament Directors don't have to ship out each medal individually. For each school, the cost to mail the medal and trophies will cost approximately either \$15 or 15% of the medals/trophies price to distribute the medals—budget for whichever is higher.

To estimate the cost of medals, assume that 40% of teams will receive at least one medal, which creates another address you must ship to. Assume that all medals will cost the maximum amount (\$15) to ship, even though only a few schools actually had to pay the full \$15 to ship.

Budget

While Satellite SO and mini SO tournament does not have some of the costs normally associated with a traditional tournament (custodial, venue rental, materials, food for event staff, etc.), there are other costs associated with running a Satellite or mini SO tournament: cost of mailing medals to the teams, cost of software for running the event, etc.

Information about budgeting medals can be found under the Medals heading.

Tournament Director

Roles and Responsibilities

The Tournament Director is the key tournament personnel responsible for running the tournament. Early in the academic year, Tournament Directors should let their Planning Committee know of the model(s) of tournaments expected for the academic year. It is important to remind them that due to the uncertainty of the situation, the model of the tournament may have to be changed during the season. Tournament Directors should take into consideration the ability of teams to travel to the tournament, the local and federal health guidelines, and information from the hosting institution.

The Tournament Director will identify the test writers for each event and share with them the platform, instructions, and tournament guidelines to submit and grade their test questions.

The Tournament Director is responsible for communication with team coaches so they have the information for their team to participate in the Tournament. Tournament Directors are also responsible for making sure each team has submitted the required waiver and release forms (e.g. liability agreement from the school for hosting the Satellite Tournament at their school). The Tournament Director will mail out the medals and trophies to the corresponding teams.

Creating and Setting Up the Web Page on Scilympiad

To create a free web page on scilympiad and use it for online testing, visit <https://scilympiad.com> and click on the green “Get Your Scilympiad Website” button and fill out the form. Once the web page has been created, the requester will receive an email to create an account for accessing the web page as the Tournament Director. Web pages can be used on and customized on Scilympiad on a per-tournament basis.

A document with the summary of the Event and Modifications can be found [here](#). You can make a copy of this document and post it on your web page.

Communication with Event Supervisors

The Tournament Director should be in constant communication with the Event Supervisors, informing them of test guidelines and submission due dates. Sample email communications with Event Supervisors can be found [here](#).

Communication with Coaches

Sample email communications with coaches can be found [here](#). At BEARSO, a set of communiqués were used in order to effectively compile all information pertaining to the events and logistics of the tournament. Placing all emails in one document, as shown in the BEARSO Updates (Communiqués) [here](#), allowed for transparent and efficient one-way communication between the Tournament

Director and coaches.

Google Forms

If Event Supervisors need to collect information ahead of the tournament date (Practice Logs, Action Sequence List, etc.), the recommended method is to create a Google Form that is sent to all teams. Make sure to ask for the team name and number in each submission, and turn on auto receipt so that each team has a confirmation that their submission went through.

Video Calls

Event Supervisors will set up video calls if necessary for the event. On the participant side, at least one adult from their team is required to be present. In the mini SO format, the participants are not allowed to be together to be equitable to all teams. On the Event Supervisor side, at least two Science Olympiad tournament personnel must be present.

Teams sign up for fifteen minute slots that occur throughout the competition. Setup and preliminary checks occurred in the main Zoom room. Participants then move to breakout rooms with the Event Supervisor to complete anything necessary for the event.

Event Modification Summaries

This section describes possible ways events may be modified to be conducted in Satellite SO and mini SO tournament formats (or whether they are not possible at all). As Tournament Director, you can decide which events will be run and how they will be run. You should clearly communicate to coaches and teams which events will be run and provide applicable additional submission instructions for events.

You should check with your Event Supervisors for building and technology events (such as Mission Possible B, Gravity Vehicle C, or Helicopters B/C) for how they prefer to evaluate participant devices (e.g. over a live video call or pre-recorded video submissions) and instructions for submission. You should notify all teams of these details.

Anatomy & Physiology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Astronomy C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Boomilever B/C

Boomilever cannot be run in mini SO and should not be run for Satellite SO as it disadvantages teams that do not have a Testing Wall, which is usually provided by the tournament.

For both Satellite SO and mini SO, this event can be replaced with Digital Structures, which can be conducted virtually through the Scilympiad and SkyCiv platforms. Participants will need a paid license to compete with SkyCiv; this can be provided by your tournament or by the participants themselves.

See "Digital Structures B/C" for more details on the replacement event.

Chemistry Lab C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Circuit Lab B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Codebusters B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

A Time Bonus may be implemented through Scilympiad; the bonus can be automatically scored by the system and requires no external modifications. Event Supervisors may choose to click a button in the test settings that changes the first question to a timed question.

Crime Busters B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Cybersecurity C

The event Cybersecurity can be used to supplement the event slate, which may be helpful for providing a more complete event slate if there are many other events your tournament is unable to run. This event may be conducted in both Satellite SO and mini SO formats.

Participants complete an online exam as well as an online, non-open internet hands-on section through an automatic code evaluation portal such as HackerRank, a website typically used to host programming competitions.

Tournament Directors may reference a Cybersecurity guide [here](#) that was used for BEARSO.

Cybersecurity rules may be found [here](#).

Density Lab B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Designer Genes C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Detector Building C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Digital Structures B/C

Digital Structures can be conducted in both Satellite SO and mini SO and is a replacement event to Boomilever.

For Digital Structures, participants will virtually build and test a Boomilever through the SkyCiv online software. Participants will need a paid license to compete with SkyCiv; this can be provided by your tournament or by the teams themselves, so you should let your participants know well in advance if they are responsible for providing the license themselves. Teams can purchase at <http://skyciv.com/olympiad> a \$50 license that is valid for 8 months. Tournaments can purchase licenses in bulk at a discount via <https://platform.skyciv.com/checkout?product=science-olympiad-ec>.

Number of Licenses	Cost Per License
1-99	\$50
100-149	\$48
150 or more	\$45

Participants will build their structures in SkyCiv during their assigned event time and will submit it within the software. You will need to coordinate with [John Loehr](#), National Science Olympiad Vice President of STEM Education, to check that your tournament is in the list of tournaments within SkyCiv and to get the web link to download participant submissions before your tournament date and pass this link to your Event Supervisor(s) so they may retrieve and score submissions.

Digital Structures rules may be found [here](#). Virginia SO's presentation may be found [here](#);

Peter Hung's Digital Structures tutorial may be found [here](#); Scioly.org's SkyCiv tutorial may be found [here](#).

Disease Detectives B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Dynamic Planet B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Elastic Launched Glider B

For mini SO, Elastic Launched Glider is not possible as homes are not safe locations for launching gliders. This event can be replaced with Helicopters B, which can be safely tested in one's home under adult supervision. *See "Helicopters B/C" for more details on the replacement event.*

For Satellite SO, Elastic Launched Glider may be run with teams in a school gymnasium, with a parent or coach acting as the Event Supervisor.

You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

Experimental Design B/C

For Satellite SO and mini SO, Experimental Design may be possible depending on the choices made by your Event Supervisor, if the materials chosen are readily available at home and allow for conducting a safe at-home chemical-free experiment (e.g. timing a ball dropping).

For BEARSO, Experiment and Data Analysis was used as a replacement event. *See "Experiment and Data Analysis B/C" for more details on our replacement event.*

Experiment and Data Analysis B/C

Experiment and Data Analysis is a mini SO alternative event for Experimental Design. Similar to last year's Experimental Design, there are two parts. The first part involves designing an experiment and writing a partial report where students will not collect data. Like before, there will be a topic area; however, materials and measurement equipment will be given in the form of images and a list. The second part of the test involves data analysis questions. Topics are detailed in the rules below. No physical materials are needed to run this event, and the event is completely conducted in the online platform with the exception of students filling out a form or emailing their diagrams from the procedure after the exam period ends.

A dedicated form or email that requires teams to identify their team number and/or school should be used. Please note that grading for this event takes a long time, so prepare graders accordingly.

To make sure Scilympiad allows for 3 participants for this event, go to Director → Configurations, click on “Set up Tournaments” then click on “Event” to the left of the tournament. Click on “Edit” to the left of “Experimental Design” and change the “Event Name” and “Short Name” both to “Experiment and Data Analysis”

Experiment and Data Analysis rules may be found [here](#).

Food Science B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Forensics C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Fossils B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Game On B

This event can be conducted in both Satellite SO and mini SO formats with few changes to the rules: participants must create a joint account so that they can both access the same single file. Participants are encouraged to screenshare or video call outside of Scilympiad in order to effectively communicate and put together a game.

Geologic Mapping C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Gravity Vehicle C

For both Satellite SO and mini SO, the event still has an unknown Target Distance which your Event Supervisor(s) will need to communicate to participants; this can be done through a Scilympiad test, and should be done in advance so participants have time to set up their track.

You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to

submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

For BEARSO, Gravity Vehicle Design was used as a replacement event. *See “Gravity Vehicle Design C” for more details on our replacement event.*

Gravity Vehicle Design C

Gravity Vehicle Design, or Vehicle Design, may be run as an alternate event for Gravity Vehicle. It can be conducted in both Satellite SO and mini SO formats. Participants must write a vehicle design proposal and an interview will be conducted with Event Supervisor(s) on the day of the competition.

Vehicle Design rules may be found [here](#).

Helicopters B/C

Helicopters may be run as an alternate event for Elastic Launched Glider (Division B) and Wright Stuff (Division C). It can be conducted in both Satellite SO and mini SO formats. You should notify teams well in advance if you are running this event so they have time to build and test their devices.

You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

Please refer to the requirements in the Video Calls section above.

Helicopters rules may be found [here](#).

Heredity B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Machines B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on component cannot be run.

Meteorology B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the

rules.

Mission Possible B

This event can be conducted in both Satellite SO and mini SO formats. You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

You should check with your Event Supervisor(s) for whether they want Action Sequence Lists (the correctly-formatted list of tasks the participants' devices will complete) submitted before the competition; if so, you should notify teams of such deadlines and how to submit them (e.g. a Google Form or emailing as attachment).

Mousetrap Vehicle B

For both Satellite SO and mini SO, the event still has an unknown Target Distance which your Event Supervisor(s) will need to communicate to participants; this can be done through a Scilympiad test, and should be done in advance so participants have time to set up their track.

You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as the supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

As another alternative, Mousetrap Vehicle Design can be used as a replacement event. See *"Gravity Vehicle Design C"* for more details about a similar replacement event for Gravity Vehicle.

Ornithology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Ping Pong Parachute B/C

For mini SO, this event can be replaced with Codebusters (for Division B) and Cybersecurity (for Division C), which can both be run through the Scilympiad platform. See *"Codebusters B/C"* and *"Cybersecurity C"* for more details on the replacement event.

For Satellite SO, this event can be conducted with a modified method for judging: evaluating participants' devices over a live video call with participants (recommended) or from a video pre-recorded by participants—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

Protein Modeling C

For both Satellite SO and mini SO, Part 2 (Computer Exploration) and Part 3 (Written) can be run normally through the Scilympiad platform. Based on running the event at BEARSO, it is not recommended that Part 1 (prebuild) be used in the competition because it is difficult to judge fairly and precisely.

The written exam (Part 3) is entirely contained in Scilympiad.

The computer exploration portion (Part 2) will require participants to download any version of the [Jmol application](#) to their computer, which also requires a Java Development Kit. Alternatively, if this is not possible, Event Supervisors may allow the teams to use the [MSoE Jmol Design Environment](#), which does not require downloading any files because it is a browser-based version of Jmol. However, the Jmol application is the preferred option because it is more user friendly than the browser based version. For Regional and State Tournaments, the link for the web-based visualization will be provided by MSoE and the link can simply be included in the Scilympiad test. Be sure to check the box that the link is to be opened on a new page. Regardless of the way the participants will access the protein visualization portion, this event should not have the timer checked for the duration the participants are outside of the browser.

Note that the score from each part needs to be scaled correctly in Scilympiad as according to the official rules.

Reach for the Stars B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Road Scholar B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Sounds of Music C

Sounds of Music has an exam portion as well as a device portion. Although the exam may be run as normal on Scilympiad without rule modifications in both Satellite SO and mini SO formats, the device portion requires modification, where a video call may be conducted in order to score the device.

Water Quality B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Wright Stuff C

For mini SO, Wright Stuff is not possible as homes are not safe locations for flying planes. This event can be replaced with Helicopters C, which can be safely tested in one's home under adult supervision. *See "Helicopters B/C" for more details on the replacement event.*

For Satellite SO, Wright Stuff may be replaced with Helicopters C. It may be run with teams in a school gymnasium, with a parent or coach acting as the Event Supervisor. *See "Helicopters B/C" for more details on the replacement event.*

You and your Event Supervisor(s) can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

Write It Do It B/C

Since this event typically requires physical materials which cannot be provided, for both Satellite SO and mini SO, this event can be replaced with Write It CAD It which can be conducted virtually through the Scilympiad platform and a free CAD software of your tournament's choosing. *See "Write It CAD It B/C" for more details on the replacement event.*

Write It CAD It B/C

Write It CAD It event is a mini SO alternative event for Write It Do It. Similarly to Write It Do It, the writer describes screenshots of a CAD model presented to them; the CADER then reconstructs the model by moving the pieces given to them. The recommended CAD software used for this event is Onshape, a free online CAD software for participants.

Tournament Directors, Event Supervisors, and competitors may reference the [Write It CAD It](#) guide in order to set up the event for their own competition.

Write It CAD It rules may be found [here](#). Possible CAD Programs that may be used for this event may be found [here](#).

Full set-up instructions can be found below:

Pre-Competition:

The director must create two events: one for the writer, one for the CADER:

Setting up WICI Writer and CADER events:

1. **Under Director --> Configuration --> Set Up Tournaments, for the tournament/division you want to change, click on Events.**
2. **Go to the link that says "Write It Do It" and click on edit.**
3. **Update** both the **Event Name** and **Short Name** to **"Write It CAD It-Writer"** (make sure the spelling is exact).
4. **Click the blue "Add an event" at the top and fill in the following:**
 - a. Event Name: **"Write It CAD It-CADer"** (make sure the spelling is exact)
 - b. Short Name: **"Write It CAD It-CADer"** (make sure the spelling is exact)
 - c. Event Type: "Hybrid"
 - d. Event Level: "trial" or "National"
 - e. Score Method: "Simple" **(no change)**
 - f. Number of Scores: "1" **(no change)**
 - g. Score Math: "Sum" **(no change)**
 - h. Count toward overall score: **uncheck**
 - i. Will event have tiers: **check**
 - j. High Score Best? Check **(no change)**
 - k. Will event have tie? Check **(no change)**

Then, the event supervisor must create and input the two tests. You must assign them to both events. This can be done through Director --> Tournament-Specific Functions --> Assign Event Supervisor/Volunteer. After they are done:

5. Under SM --> Online Tests, click on the gear for **"Write It CAD It-Writer"** and set the duration to 25 minutes. Adjust the time schedule accordingly.
6. Under SM --> Online Tests, click on the gear for **"Write It CAD It-CADer"** and set the duration to 20 minutes. Adjust the time schedule accordingly. Uncheck "Time off browser".

Sample schedule, if the block is 60 minutes long and starts at 1:00 PM:

1:00 - 1:25: Writer's Test

1:25 - 1:30: *Transition*

1:30 - 1:50: CADer's Test

7. Assign the event supervisor to **both** of these events.

Scoremaster

Tasks

The Scoremaster confirms the ranking of teams provided by each Event Supervisor. Compared to regular in-person tournaments, score counseling is made much simpler by the online Scilympiad grading platform. Here is a suggested process for online score counseling (adapted from NSO Scoring Guidelines):

1. Are there any outstanding appeals or unaddressed accounts of suspicious activity, such as a high total out-of-website time? If so, contact the Tournament Director and head coach of the team in question immediately.
2. How was the winner determined? (High score, low score, different scoring components)
3. Were there any scoring issues encountered? (This is important because Event Supervisors may not know what constitutes a problem on the Scilympiad platform.)
4. Are teams assigned the correct tier and/or Participation/No Show/Disqualification label? Event Supervisors who manually enter scores sometimes enter a score of zero when a team should be assigned a No Show. This can be fixed in Scoremaster Dashboard → Review/Edit Scores and edit the Status column. Also, Scilympiad may occasionally not display tests that were taken if the test did not submit correctly. Contact the Tournament Director/webmaster to retrieve these tests.
5. If an external platform was used for an event, spot check the Event Supervisor's manual score entry into Scilympiad. Also verify the correctness of formulas used in grading in the external platform, if applicable. There is no need to double check scoring if Scilympiad was solely used for grading and submission because points are totaled automatically.
6. Are all ties broken? (They will be highlighted in yellow on Scilympiad in the Event Scoring tab.) How were ties broken? If ties were automatically broken by Scilympiad, there is nothing to check. If ties were manually broken in Scilympiad or otherwise, double check one or two ties and make sure they are broken corresponding to the Event Supervisor's method for breaking ties.
7. If no issues remain, the Event Supervisor should go to Event Scoring from the Event Supervisor Dashboard and complete the Checkout form by clicking on the red button. The Scoremaster should do the same after the Event Supervisor has submitted the form by clicking Review/Edit Scores → [Event Name] → ES Checkout and hitting submit. At this point, scores are locked.

Finalizing Scores

When all the events are locked, go to the Scoremaster Dashboard → Set Scoring Rules and make sure the Cut-off Points, Participating Points, No-Show Points, and Disqualified (DQ) Points, etc. are

all correct for both divisions. Next, you can generate the final scoreboard by going to the Scoremaster Dashboard → Generate Ranks/Points. If there are any events that need to be taken out, you can uncheck the box before pressing the Generate Ranks/Points again to confirm.

You can generate the awards powerpoint using Export Awards to PowerPoint from the Scoremaster Dashboard.

Common Mistakes to Look Out For

Ensure that tiers and Participation/No Show/Disqualification are assigned correctly. Depending on the event, Event Supervisors might choose to use a separate submission/grading portal for their event, requiring them to manually enter scores into Scilympiad. Additionally, some events may have multiple parts, so additional scores are added in the Event Scoring page on Scilympiad. Often, a score of “0” is not distinguished from a No Show. Confirm that teams that scored a “0” actually got zero points. If they did not participate in the event, Scilympiad allows Event Supervisors to mark teams as “No Show,” which will assign them the appropriate number of points during team scoring.

Event Supervisors

Roles and Responsibilities

Tournament Personnel are still needed for mini SO and Satellite SO tournaments. Each event will still need Event Writers to provide the test and answer key/solutions. In Satellite SO tournaments, the events will ideally be administered by the team coach. However, Event Writers will also be available remotely during the period when their event is administered so they can answer any questions that may come up as well as after the tournament so they can grade the responses.

Prior to the event: Event Writers should review the rules available for free at <http://store.soinc.org/>. The rules can also be obtained from your Tournament Director. The Event Writers should create their test and answers using the platform provided by the Tournament Director.

During the event: Event Writers should provide a contact method to the Tournament Director to distribute to the Coaches in case a question regarding the event comes up during the hour the event is administered.

After the event: Event Writers are responsible for grading the tests and reporting of the scores to the Tournament Director within the reporting report provided by the Tournament Director.

Note: Per National Science Olympiad's rules, tournament personnels are prohibited from going to school to run the events.

Developing Your Event

1. Event Supervisors should save all graphics/photos/images to their computers before uploading them into the event questions.
2. Double check to make sure all files in the student view, including images, audio, and video, are visible and aligned correctly.
3. Be aware that there are apps for reverse images searches which the teams could find sources of internet obtained images.
4. Have an independent person review and read each question in the student view of the event before it is published and double check your answers.
5. If using fill-in the blank type questions, be aware that you must review each teams' answers because spelling mistakes, alternative spellings, or additional words will be marked wrong. The automatic grading system will mark the answer incorrect unless the answer is an exact match.
6. You can vary the point values across the event and choose any number of ways to break ties. Questions may be marked as tiebreakers in Scilympiad in order to automatically grade ties.

7. Publishing the test allows participants to see the introduction page of the exam.

Administering the Event

1. Practice using the system (classroom, chat) and do not wait for the event day.
2. Go to the classroom before the starting time of the event, and pre-paste a welcome to "event" and any last minute or critical instructions to make the event user friendly for the teams. Broadcast the message to all teams when the event starts. For multiple relays, repeat the same procedure at the beginning of each relay.
3. To send a private message to a specific team, click the name of the team, type in the message, and click "To B1 only". Only the team that the message was sent to will be able to see the message.
4. You can switch between events being conducted at the same time without logging out.

Monitoring Scilympiad Chat

1. It is strongly suggested to have more than one person monitoring the chat at all times during the event.
2. When responding to a team's question in Chat, decide whether the answer/information should be broadcasted to all teams. Remember click on the team number to have it go just to that team.
3. Currently, there is no way for two Event Supervisors to chat with each other using the software, and either telephone (easiest and fastest way to coordinate) or email/text can be used. Having a backchannel with other Event Supervisors is strongly recommended.
4. In the Classroom in Chat, right click to "reload" questions from the teams which disappear from your screen frequently.
5. Having a list of responses for technical software issues is highly recommended, in order to more efficiently respond to participants. Consider common questions such as "Why are the images not loading?", "How do you save?", and "What happens when time runs out?". Remember to address event-specific questions as well.

Here are some answers to frequently asked participant questions:

Question	Answer
Why is nothing loading? Why are the pages so frequently returning errors?	First, make sure that you are using either Chrome or Edge. If you are using either of those browsers, try saving all of your answers and reloading the page.
How do I chat with my partner?	The chatbox is located to the right of the screen. To send a message, type in a message at the bottom right textbox, and click the "Enter" key to send the message.

Why aren't my answers saving?

First, make sure that you are using either Chrome, Edge, or Firefox. When you click "Save Answer", does the "Answers Saved" box appear?

What happens when time runs out?
Do my answers automatically save or submit?

When time runs out, you will no longer be able to see nor edit your answers. Your answers will be automatically saved.

Grading Exams

1. Recheck all auto graded free response questions in case questions were misgraded.
2. Ensure that tests are graded accurately, and prevent ties in any way possible.
3. "Checkout" the scores and read through the checklist once all tests are graded and all teams are scored.

Things to look out for

Video Calls

Event Supervisors will set up video calls if necessary for the event. On the participant side, at least one adult from their team is required to be present. In the mini SO format, the participants are not allowed to be together to be equitable to all teams. On the Event Supervisor side, at least two Science Olympiad tournament personnel must be present.

Teams sign up for fifteen minute slots that occur throughout the competition. Setup and preliminary checks occurred in the main Zoom room. Participants then move to breakout rooms with the Event Supervisor to complete anything necessary for the event.

Google Forms

If Event Supervisors need to collect information ahead of the tournament date (Practice Logs, Action Sequence List, etc.), the recommended method is to create a Google Form that is sent to all teams. Make sure to ask for the team name and number in each submission, and turn on auto receipt so that each team has a confirmation that their submission went through.

Event Modification Summaries

Anatomy & Physiology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Astronomy C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Boomilever B/C

Boomilever cannot be run in mini SO and should not be run for Satellite SO as it disadvantages teams that do not have a Testing Wall, which is usually provided by the tournament.

For both Satellite SO and mini SO, this event can be replaced with Digital Structures, which can be conducted virtually through the Scilympiad and SkyCiv platforms. Participants will need a paid license to compete with SkyCiv; this can be provided by your tournament or by the participants themselves.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

See "Digital Structures B/C" for more details on the replacement event.

Chemistry Lab C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Circuit Lab B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Codebusters B/C

This event may be run similarly or equal to that of an in-person competition. However, you must decide whether a Time Bonus will be implemented for the first question of the test; once a decision has been reached, notify the Tournament Director of the change so that the information may be passed onto teams.

[Add New Question](#) [Set Timed Question](#) [View Student Version](#) [Edit Test](#) [Clone Test](#) [Test List](#) [Back to ES Dashboard](#)

Based on popular requests, tie breaking checkmark is replaced with **Tie Order** that allows specifying the order of questions to be used for breaking ties. Click  to set the order.

Use arrow up/down to move the question one position at a time. To move a question more than one position, change the List Order value. List Order controls the order of the questions. By default L enough gap for insertion. Click pencil to update List Order.

Action	Q. #	List Order	Category	Points	Tie Order	Question Type	Question (showing only the first 80 chara
 	1	10	Generic	1.00		Cryptography	Decode this Aristocrat.

To implement a Timed Question, click "Set Timed Question" and "Turn **ON** Timed Question".

This will make the first question a timed question.

Codebusters questions are implemented with the *Cryptography* Question Type in Scilympiad. Each question can be added in the question editor.

attributes will be imported

Decode this Aristocrat.

Type in your **Given Phrase** in the top entry and your **Expected Response** in the bottom entry. Make sure each letter in the two phrase align. Verify them carefully. If you need to enter Ñ, press Alt then 165 from number keypad. To include a frequency table, copy and paste **[FREQUENCY]** at the end of the question in the question editor. It will be replaced with the frequency table.

asdf fa e asdjfl asdzxcvzxc.

THIS IS A SAMPLE ARISTOCRAT.

The top space is for the ciphertext, while the bottom space is for the plaintext.

1. (1.00 pts) Decode this Aristocrat.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

a	s	d	f	f	a	e	a	s	d	j	f	l	a	s	d	z	x	c	v	z	x	c	.
																							.

This is how a sample Aristocrat would appear. Patristocrats, Xenocrypts, Caesar, Hill, and Affine Ciphers can also be encrypted with the “Cryptography” type of question. Other questions, such as RSA or Morse Code Ciphers, should be implemented with a short-answer box, where teams type in the message that was decoded.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Crime Busters B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Cybersecurity C

There are two portions to the cybersecurity exam:

1. **Written exam**, which is hosted on Scilympiad and asks questions about topics such as hashing algorithms and encryption
2. **Hands-on tasks**, programming challenges that can be completed by competitors on HackerRank.

The Event Supervisor is responsible for creating both parts of the exam. The written test can be created through Scilympiad. The portion of the event on HackerRank should be created by the Event Supervisors by making a new contest on HackerRank, which can be done by seeing the instructions [here](#).

Event Supervisors should make the challenges for the contest. The HackerRank competition should be closed until the time block and the contest should be opened during the time block. The Scilympiad test should be graded for accuracy and the score for each team should be obtained from HackerRank. These scores should then be combined by the Event Supervisor to get the final score for each team.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Density Lab B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Designer Genes C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Detector Building C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Digital Structures B/C

Digital Structures can be conducted in both Satellite SO and mini SO and is a replacement event to Boomilever. Digital Structures rules may be found [here](#).

Participants will build their structures in SkyCiv during their assigned event time and will submit it within the software. Before participants start building, you will need to provide the two unknown values described in rule 4.a. and record teams' Estimated Load Supported described in rule 4.b. for tiebreakers. You can do both via a Scilympiad test as shown below. Be sure to remind teams to record these values elsewhere as once they submit the

Scilympiad test they will not be able to revisit them! (Keeping the test open is not an option if you are recording the Estimated Load Supported this way as it is intended to be a prediction done before building!)

Computilever C - Computilever - BEARSO - 10-10-2020

Welcome to Computilever! This test contains 1) some of the specifications to which you must design your Boomilever and 2) a place to submit your Estimated Load Supported for tiebreaker. **Please record these specifications before clicking submit as you will not be able to access them again after submission.** You must submit this test within the first 5 minutes of your event block for your Estimated Load Supported to be considered.

Please design your Boomilever in [SkyCiv](#) with *Competition Mode* enabled via the Science Olympiad add-on (In SkyCiv: Hi *YourName* > Account Settings > Software Settings > Science Olympiad [S3D] > On). **You will submit (within 45 minutes of starting this test) your Boomilever both 1) through SkyCiv and 2) as a back-up, through Google Forms (linked in the document below).**

During this event you should communicate with your partner via a method outside of Scilympiad such as Google Meet, Zoom, Facebook Messenger, FaceTime, etc. **As you will not be able to access this test after submitting, please keep this [instructions document](#) open in another tab.**

1. (0.00 pts) The distance from the **origin to the Contact Width Lines** is **6.5 cm**. In other words, distance between the two Contact Width Lines is 13.0 cm.

☐ A) I have recorded or memorized this distance.

2. (0.00 pts) The distance between the **Testing Wall and the Loading Point** closest to the Testing Wall is **42.5 cm**.

☐ A) I have recorded or memorized this distance.

3. (0.00 pts) What is your **Estimated Load Supported**? Please enter a value between 0 and 15,000, in grams. This will be used as a tiebreaker (per rule 5.e.i.) as needed.

Thank you for submitting your Estimated Load Supported! You will submit (within 45 minutes from when you started this test) your Boomilever both 1) through SkyCiv and 2) as a back-up, through Google Forms (linked in the following document).

As you will not be able to revisit this webpage later, please check that you have opened this [instructions document](#) in another tab.

Before the day of your tournament, the Tournament Director must provide you with a web link to download participant submissions so that you may retrieve and score submissions. The link will retrieve and download all submissions made to your tournament. If a team's submission does not appear in your download, they may have submitted it to the wrong tournament and there is no fix.

After downloading all teams' submissions, you should review each team's measurements for Minimum Loading Distance and Contact Width to determine if they are in violation of the parameters you provided to teams at the beginning of the event (in which case they would be ranked in Tier 2 per rule 5.d.ii.). If any rows have a team's details but no measurements, it means they attempted to build a structure but it could not be scored—award these teams participation points only.

After scoring all teams, you will need to input the results manually into Scilympiad (if your tournament is using the platform) so the results can count toward team scores.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Disease Detectives B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Dynamic Planet B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Elastic Launched Glider B

Elastic Launched Glider cannot be run in mini SO and should not be run for Satellite SO as it disadvantages teams with different ceiling heights.

For both Satellite SO and mini SO, this event can be replaced with Helicopters B/C, which can be conducted virtually through a video submission or zoom meeting.

See "Helicopters B/C" for more details on the replacement event.

Experimental Design B/C

For Satellite SO and mini SO, Experimental Design may be possible depending on the choices made by your Event Supervisor, if the materials chosen are readily available at home and allow for conducting a safe at-home chemical-free experiment (e.g. timing a ball dropping).

For BEARSO, Experiment and Data Analysis was used as a replacement event. *See "Experiment and Data Analysis B/C" for more details on our replacement event.*

In this traditional version of Experimental Design, provide a list of common materials and a topic area at the top of the exam. The event supervisor should create an answer sheet in Scilympiad following the experimental design checklist found in the rules. Note that the checklist is slightly different for division B and C. Since sending in diagrams cannot be done via Scilympiad, event supervisors should create a dedicated form or email address where students can submit their photo of diagrams for the procedure as well as require teams to identify their team number and/or school. Please be sure to emphasize that this can be done after the end of the event within a reasonable time so that the Scilympiad Out-Browser-Window Tracking feature can be used during the test.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Experiment and Data Analysis B/C

The first part of this event is similar to the original version of this event. Please read the description of Experimental Design above to get the full picture of how this version of Experimental Design's first part should work. Most importantly, again, note that there is a

slight difference in the grading rubric for the B and C exams and that students should fill out a separate form or email event supervisors need to set up before the event. In the second part of the event, prepare questions relating to data analysis as seen in the topics on the rules. Make sure your test covers all the topics for that division and the number of equations is evenly distributed. This part does not have to reference the first part of the exam, and can be independent of the previous part of the exam. Please note that grading for this event takes a long time, so prepare graders and questions accordingly.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Food Science B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Forensics C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Fossils B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Game On B

For Satellite SO and mini SO, Game On can be run from the participants' homes. For BEARSO the topic was included as part of the test inside Scilympiad so that participants can only see the topic during the time block.

Introduction (shown before test start):

The topic for this tournament is [TOPIC]. When you are finished creating your game, click File in the top left corner and click "Save to your computer." Upload this file to Scilympiad to complete the submission process.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Geologic Mapping C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the

rules.

Gravity Vehicle C

For both Satellite SO and mini SO, the event can be run through a video call. This event still has an unknown Target Distance which you will need to communicate to participants; this can be done through a Scilympiad test, and should be done in advance so participants have time to set up their track.

You and your Tournament Director can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

Collecting Practice Logs:

You may want to collect the practice logs the morning of the tournament or the day prior to the tournament. The recommended method to collect the practice log is to use a google form. See the section on Google Form above for tips.

Setting up a signup schedule:

1. 15 minutes should be allocated for each team. Although most teams will require less time, more time is allocated if technical difficulties occur.
2. Prior to the competition, set up the self-scheduled sign up within scilympiad so that teams can sign up for their time slot.

Setting up a Zoom conference call:

1. Create a Zoom account [here](#), and download the Zoom software.
2. Click “New Meeting”. A window will pop up with a new meeting.
3. At the top left corner of the screen, click the green shield. Copy the invite link; this will have to be uploaded to either the exam portion on Scilympiad, where teams will be able to access the link, or sent out to team coaches before competition.

Video call:

1. Please refer to the requirements in the Video Calls section above.
2. For each team, the following information should be written down:

- a. Team information
 - i. School name
 - ii. Team name
 - iii. Team number
 - iv. Student names, if applicable
 - b. Device Information as listed on the checklist in scilympiad
3. Before each run, the Event Supervisor will ask the student to measure the track length, all of the required dimensions and prove that all construction parameters were met.
4. A run will then be performed and the participant or adult with them is responsible for pointing their recording device so that the vehicle is in the frame of the camera during the entire duration of the run. The participant and/or the adult with them will measure the distance for scoring.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Gravity Vehicle Design C

For both Satellite SO and mini SO, Gravity Vehicle C, rather than Gravity Vehicle Design C, should be run.

Refer to "Gravity Vehicle C" for more details.

Helicopters B/C

In both mini and Satellite SO, Helicopters can be run over a video call with the event supervisor. Helicopters replaces Elastic Launched Glider in division B and Wright Stuff in division C.

Setting up a signup schedule:

1. 10 minutes should be allocated for each team. Although most teams will require less time, more time is allocated if technical difficulties occur.
2. Prior to the competition, set up the self-scheduled sign up within scilympiad so that teams can sign up for their time slot.

Setting up a Zoom conference call:

1. Create a Zoom account [here](#), and download the Zoom software.
2. Click "New Meeting". A window will pop up with a new meeting.

3. At the top left corner of the screen, click the green shield. Copy the invite link; this will have to be uploaded to either the exam portion on Scilympiad, where teams will be able to access the link, or sent out to team coaches before competition.

Video call:

1. Please refer to the requirements in the Video Calls section above.
2. For each team, the following information should be written down:
 - a. Team information
 - i. School name
 - ii. Team name
 - iii. Team number
 - iv. Student names, if applicable
 - b. Device Information as listed on the checklist in scilympiad
3. Before each flight, the Event Supervisor will ask the student(s) which Helicopter they will be using for the flight. They will then ask the student to measure all of the required dimensions and prove that all construction parameters were met.
4. The Event Supervisor will then ask the student(s) if a bonus will be attempted.
5. A flight will then be performed with the Helicopter in the frame of the camera during the entire duration of the flight. The Event Supervisor will time the Helicopter and record the team's score.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Heredity B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Machines B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Meteorology B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Mission Possible B

For both Satellite SO and mini SO, the event can be run through a video call. This event still has an unknown Target Operation Time for the State and National tournament which you

will need to communicate to participants at the beginning of the 30 minute set up period; this can be done once the participants have joined the video call and are ready. It is also recommended to change the 60 second Target Operation Time to an unknown between 45 second and 75 seconds.

You and your Tournament Director can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos). In the case that you decide to run this event with students recording a video on tournament day and submitting it, the Target Operation Time should be announced at the beginning of the tournament day using scilympiad's built in time released test question.

For mini SO, this event can be run by having participants demonstrating their device in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

Collecting Action Sequence List

You may want to collect the Action Sequence List the morning of the tournament or the day prior to the tournament. The recommended method to collect the Action Sequence List is to use a google form. See the section on Google Form above for tips.

Setting up a signup schedule:

1. 45 minutes should be allocated for each team - 30 minute set up, 15 minutes to run their device with the Event Supervisor and answer questions.
2. Prior to the competition, set up the self-scheduled sign up within scilympiad so that teams can sign up for their time slot.

Setting up a Zoom conference call:

1. Create a Zoom account [here](#), and download the Zoom software.
2. Click "New Meeting". A window will pop up with a new meeting.
3. At the top left corner of the screen, click the green shield. Copy the invite link; this will have to be uploaded to either the exam portion on Scilympiad, where teams will be able to access the link, or sent out to team coaches before competition.

Video call:

1. Please refer to the requirements in the Video Calls section above.
2. For each team, the following information should be written down:

- a. Team information
 - i. School name
 - ii. Team name
 - iii. Team number
 - iv. Student names, if applicable
 - b. Device Information as listed on the checklist in scilympiad
3. When teams first join the video call, ask the participant to bring their device (with the adult in the room helping) to bring the device from off the table onto the ground and back up on the table. This is to ensure that the device has not been set up prior to the 30 minute set up period. If the device is already on the ground, it is sufficient to ask them to pick it up and put it back down.
4. Once the team is ready to start their 30 minute set up time, the Event Supervisors will tell the team the Target Operational Time.
5. When the team has completed their set up and is ready to run their device, the Event Supervisors in the main video call will send the team with one of the breakout rooms where other Event Supervisors will provide instructions for the participants to demonstrate the running of the device. Before the run, the Event Supervisor will ask the student to measure all of the required dimensions and prove that all construction parameters were met.
6. A run will then be performed and the participant or adult with them is responsible for pointing their recording device so that the Mission Possible device is in the frame of the camera during the entire duration of the run. The participant and/or the adult with them will measure the distance for scoring.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Mousetrap Vehicle B

For both Satellite SO and mini SO, the event can be run through a video call. This event still has an unknown Target Distance which you will need to communicate to participants; this can be done through a Scilympiad test, and should be done in advance so participants have time to set up their track.

You and your Tournament Director can decide whether to judge device runs over live video call (recommended) or pre-recorded video—you should let participants know ahead of time which submission method is being used (live video call or pre-recorded video) and how to submit their devices (e.g. a link to the video call or a link for uploading pre-recorded videos).

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather

than a parent, overlooking the event.

Collecting Practice Logs:

You may want to collect the practice logs the morning of the tournament or the day prior to the tournament. The recommended method to collect the practice log is to use a google form. See the section on Google Form above for tips.

Setting up a signup schedule:

1. 15 minutes should be allocated for each team. Although most teams will require less time, more time is allocated if technical difficulties occur.
2. Prior to the competition, set up the self-scheduled sign up within scilympiad so that teams can sign up for their time slot.

Setting up a Zoom conference call:

1. Create a Zoom account [here](#), and download the Zoom software.
2. Click "New Meeting". A window will pop up with a new meeting.
3. At the top left corner of the screen, click the green shield. Copy the invite link; this will have to be uploaded to either the exam portion on Scilympiad, where teams will be able to access the link, or sent out to team coaches before competition.

Video call:

1. Please refer to the requirements in the Video Calls section above.
2. For each team, the following information should be written down:
 - a. Team information
 - i. School name
 - ii. Team name
 - iii. Team number
 - iv. Student names, if applicable
 - b. Device Information as listed on the checklist in scilympiad
3. Before each run, the Event Supervisor will ask the student to measure the track length, all of the required dimensions and prove that all construction parameters were met.
4. A run will then be performed and the participant or adult with them is responsible for pointing their recording device so that the vehicle is in the frame of the camera during the entire duration of the run. The participant and/or the adult with them will measure the distance for scoring.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Ornithology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Ping Pong Parachute B/C

This event cannot be conducted in both Satellite SO and mini SO formats.

Protein Modeling C

This event can be run in both Satellite SO and mini SO formats with modifications. Part 2 (Computer Exploration) and Part 3 (Written) can both be run through the Scilympiad platform. Part 1 should not be run, because it is nearly impossible to grade protein prebuilds to the level of accuracy necessary to be meaningful without possessing a physical prebuild. Part 2 should be run using the Jmol computer application or the browser-based [MSoE Jmol Design environment](#), the latter of which does not require any downloads and thus may be more accommodating of teams without Chromebooks.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Reach for the Stars B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Road Scholar B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Sounds of Music C

Sounds of Music has an exam portion as well as a device portion. Although the exam may be run as normal on Scilympiad without rule modifications, the device portion cannot. However, a video call may be conducted in order to score the device.

Setting up a signup schedule:

1. 10 minutes should be allocated for each team. Although most teams will require less time, more time is allocated if technical difficulties occur.
2. Prior to the competition, a signup schedule should be sent out to coaches. A Google Form can be used in order to obtain teams' time preferences to test the instrument during competition day.

Setting up a Zoom conference call:

1. Create a Zoom account [here](#), and download the Zoom software.
2. Click "New Meeting". A window will pop up with a new meeting.
3. At the top left corner of the screen, click the green shield. Copy the invite link; this will have to be uploaded to either the exam portion on Scilympiad, where teams will be able to access the link, or sent out to team coaches before competition.

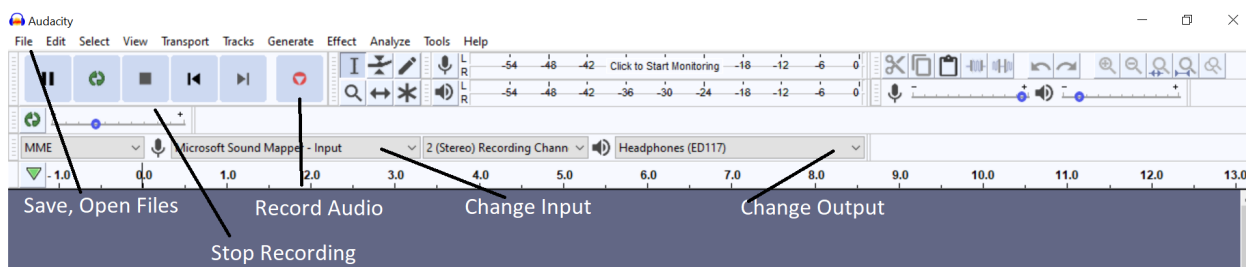
Video call:

1. For each team, the following information should be written down:
 - a. Team information
 - i. School name
 - ii. Team name
 - iii. Team number
 - iv. Student names, if applicable
2. Teams will get 2 minutes to set up their device. Students may use their personal tuner, including a cell phone app, in order to adjust pitches on their device. After 2 minutes, ask the student to put away other materials.
3. Ask the student what scale they will be playing, including the key and octave of the first note.
4. For each pitch:
 - a. Ask the student to play each pitch for at least 3-5 seconds. The longer the note is held, the more accurate the measurement will be.
 - b. For each note, record the frequency and note of each.
 - c. The Event Supervisor should not use headphones or earbuds when listening to the student's instrument; instead, speakers should be used. This is to ensure that the Event Supervisor's microphone is able to pick up the instrument directly from the speakers.
5. For the song:
 - a. Ask the student to play the song from beginning to end, measuring the total duration of the song.
 - b. Record the score on the 9-point scale as defined in the rules manual.
6. For the bonus:
 - a. First, ask if the team will attempt the bonus. If no, the bonus will not be attempted and the team will receive a zero on the portion.
 - b. If the bonus is attempted, ask the note that the team plans to play.
 - c. Ask the team to play the bonus pitch. Again, record the frequency of the pitch.

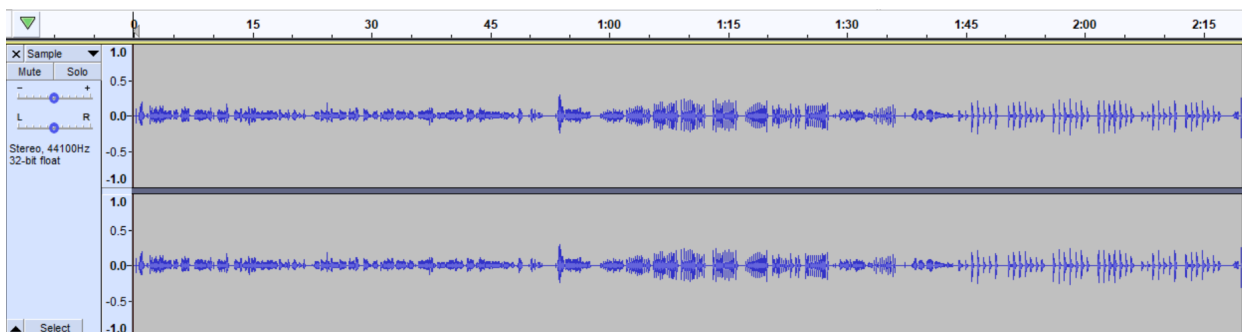
Measuring a Pitch

There are two ways to measure the frequency of a note being played. The first is through PAScioly's [Sounds of Music Pitch Test](#), which is a free tuner that you can either use online or download to use offline. This is the easier and more intuitive method; however, some teams may have quiet instruments, and so this script may not detect any sound. In addition, this script sometimes detects overtones of the target note being played, even if the note that is played is in the correct octave. This would deduct points from the teams' score that they would otherwise deserve. In this case, a secondary application may be necessary in order to compute the frequency that is being played. I will be demonstrating how to use Audacity, a free audio and music editor, in order to correctly measure a teams' pitch scores.

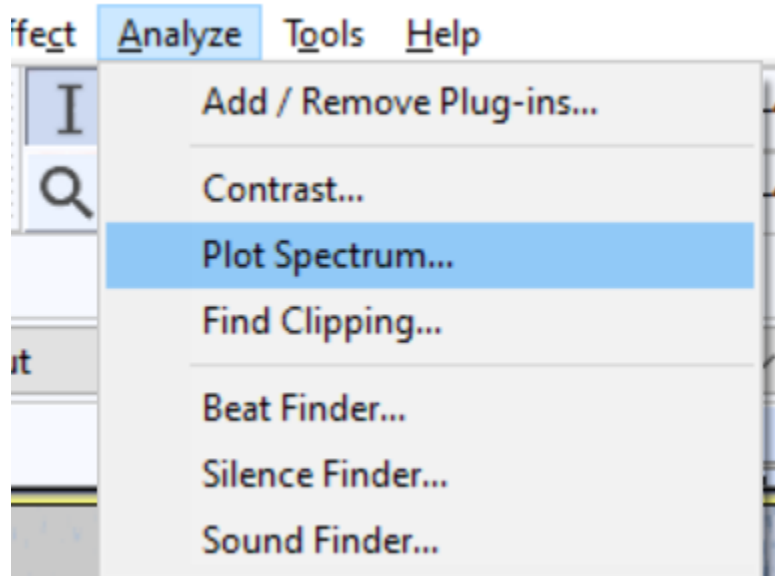
First, Audacity will have to be downloaded onto a computer. [This](#) is the link to the download. Once you have it installed, open the program.



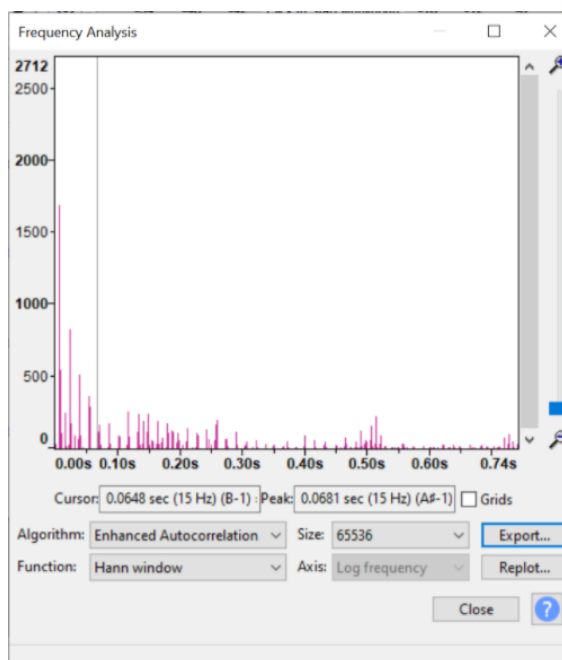
Start recording the team's instrument by clicking the red circle. This starts recording using the microphone. If an input isn't being detected, make sure that the correct input is being used. If it is not, click the "Change Input" button marked in the diagram above. If you are using a Windows computer, you should change the Audio Host from "MME" to "Windows WASAPI," and click on "Change Input" and set your device to the setting that has the word "loopback" in it. This allows Audacity to record digital audio directly from Zoom, which means there is no quality loss after the audio enters the student's microphone: it is sent straight to Audacity.



Play the recording. Listen to when a note starts and ends. Then, drag your mouse over the entire range of values. You will be analyzing this duration of time.



Click Analyze → Plot Spectrum.



Change “Size” to 65536 in order to accurately measure the most intense frequency, and choose “Enhanced Autocorrelation”. Finally, change the “Function” to “Hann Window” or “Hanning Window” (although spelled similarly, check to be sure you did not select “Hanning window” by accident). Then, click “Export” and “Save” in order to save the file. Open the file labeled spectrum.txt. You will see a text file with three columns, the second and third of which are going to be used to determine the frequency played. The second is the frequency

of the note, and the third is how loud the note is over the entire duration of time. The greater the intensity, the louder the sound.

0.007143	140.000000	2280.357422
0.007166	139.556962	2362.514404
0.007188	139.116719	2477.084473
0.007211	138.679245	2553.953369
0.007234	138.244514	2638.955566
0.007256	137.812500	2739.628906
0.007279	137.383178	2764.331543
0.007302	136.956522	2765.171631
0.007324	136.532508	2757.887939
0.007347	136.111111	2701.420166
0.007370	135.692308	2674.447998
0.007392	135.276074	2658.066895
0.007415	134.862385	2595.708984
0.007438	134.451220	2558.480957
0.007460	134.042553	2519.168457

Look for the frequency with the greatest intensity. In this case, the 136.956522Hz sound is the most intense sound. This should be the frequency that is recorded and measured for the student. As a check, make sure that the frequencies in your text file are reasonable. You don't want to be grading note 4 but looking at the text file for note 3 by accident!

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Water Quality B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Wright Stuff C

Wright Stuff cannot be run in mini SO and should not be run for Satellite SO as it disadvantages teams with different ceiling heights.

For both Satellite SO and mini SO, this event can be replaced with Helicopters B/C, which can be conducted virtually through a video submission or zoom meeting.

See "Helicopters B/C" for more details on the replacement event.

Write It Do It B/C

Since this event typically requires physical materials which cannot be provided, for both Satellite SO and mini SO, this event can be replaced with Write It CAD It which can be conducted virtually through the Scilympiad platform and a free CAD software of your tournament's choosing. *See "Write It CAD It B/C" for more details on the replacement event.*

Write It CAD It B/C

A full Write It CAD It guide can be found [here](#). Below is a summary of the previously linked document.

Pre-Competition:

Setting up WICI Writer and CADER events:

1. **Create a test in the Writer event** with a text block with a link to the PDF or a presentation of the screenshots and one "Short Answer" type question. The "Short Answer" question may be out of the rubric's total point value. Make sure the screenshots have the proper sharing settings - is the link on "everyone with the link can view"?

Below is the sample text you can include in the event **instructions and introduction**. Please use the "code" view to paste the text in; the character limit prevents the text from being pasted.

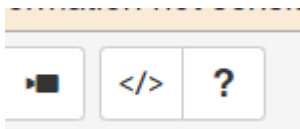
Instructions and Introduction (shown before test start), PREVIEW. Please copy/paste the html code below instead:

This test is for the Writer. If you're not the Writer, please let your coach know immediately.

Once you start the test, you will see screenshot images of the model from different angles. You have 25 minutes to type the instructions in the free response box. The instructions are autosaved every time they click outside of the box. While there is no advantage to finishing your writing early, if you finish early, you must click "Submit Test." You should also click outside of the textbox you're typing in before the end of the 25 minutes so that the writing is saved. You may also want to click outside the textbox and back in periodically just to be safe. The test will be automatically submitted when the 25 minutes is up.

If you have not already, please read the student instructions guide [here](#) before competition.

The "code" button can be found here:



```
<p dir="ltr" style="margin-top: 0pt; margin-bottom: 0pt; line-height: 1.38;"><span style="font-size: 11pt; font-family: Inconsolata, monospace; background-color: transparent; font-variant-numeric: normal; font-variant-east-asian: normal; vertical-align: baseline; white-space: pre-wrap;"><b>This test is for the Writer. If you're not the Writer, please let your coach know immediately.</b></span></p><p><span id="docs-internal-guid-c69fbd72-7fff-5f7c-d2dd-a728258f96e4"><br></span></p><p dir="ltr" style="margin-top: 0pt; margin-bottom: 0pt; line-height: 1.38;"><span style="font-size: 11pt; font-family: Inconsolata, monospace; background-color: transparent; font-variant-numeric: normal; font-variant-east-asian: normal; vertical-align: baseline; white-space: pre-wrap;"><span class="Apple-tab-span" style="white-space: pre;"></span></span><span style="font-size: 11pt; font-family: Inconsolata, monospace; background-color: transparent; font-variant-numeric: normal; font-variant-east-asian: normal; vertical-align: baseline; white-space: pre-wrap;">Once you start the test, you will see screenshot images of the model from different angles. You have 25 minutes to type the instructions in the free response box. The instructions are autosaved every time they click outside of the box. While there is no advantage to finishing your writing early, if you finish early, you can click "Submit Test." You should click outside of the textbox you're typing in before the end of the 25 minutes so that the writing is saved. You may also want to click outside the textbox and back in periodically just to be safe. The test will be automatically submitted when the 25 minutes is up.</span></p>
```

Once you paste it in, click the "code" button again to show your instructions, which should look like normal text.

1. **Create a test in the CADER event** with the introduction with directions and ONE short answer type. Below are sample texts you may use for the introduction (shown before test start) and the directions (shown after test start):

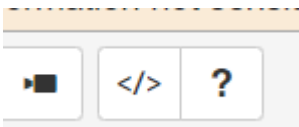
Instructions and Introduction (shown before test start), **PREVIEW**. Please copy/paste the html code below instead:

This test is for the CADER. If you're not the CADER, please let your coach know immediately.

Once you start the test, you will see your writer's model instructions as well as the filename of the WICI file to search for in Onshape. You will have 20 minutes to recreate the model with your writer's instructions. Although the only advantage to finishing early is a tiebreaker, if you finish early, you must click "Submit Test." The test will be automatically submitted when the 20 minutes is up, and you must share your Onshape file with the Event Supervisor's email through Onshape's sharing function by then.

If you have not already, please read the student instructions guide [here](#) before competition.

The "code" button can be found here:



```

<span
style="font-size:11pt;font-family:Inconsolata,monospace;color:#000000;background-color:trans
parent;font-weight:700;font-style:normal;font-variant:normal;text-decoration:none;">This
test is for the CAdEr. If you're not the CAdEr, please let your coach know
immediately.</span></p><p dir="ltr"
style="line-height:1.38;margin-top:0pt;margin-bottom:0pt;"><span class="Apple-tab-span"
style="white-space:pre;">    </span><span
style="font-size:11pt;font-family:Inconsolata,monospace;color:#000000;font-weight:400;font-s
tyle:normal;font-variant:normal;text-decoration:none;vertical-align:baseline;white-space:pre
;white-space:pre-wrap;">Once you start the test, you will see your writer's model
instructions as well as the filename of the WICI file to search for in Onshape. You will
have 20 minutes to recreate the model with your writer's instructions. Although the only
advantage to finishing early is a tiebreaker, if you finish early, you can click "Submit
Test." The test will be automatically submitted when the 20 minutes is up, and you must
share your Onshape file with the event supervisor's email through Onshape's sharing function
by then.</span></p><p><br><span style="font-size: 11pt; font-family: Inconsolata, monospace;
font-variant-numeric: normal; font-variant-east-asian: normal;">If you have not already,
please read the student instructions guide </span><a
href="https://docs.google.com/document/d/1-8dAyW3efOU9AM1RuDOY1Pr_77w6UJKk4gOcL98as60/edit?u
sp=sharing"><span style="font-size: 11pt; font-family: Inconsolata, monospace; color:
rgb(17, 85, 204); background-color: transparent; font-variant-numeric: normal;
font-variant-east-asian: normal; text-decoration-line: underline; text-decoration-skip-ink:
none;">here</span></a><span style="font-size: 11pt; font-family: Inconsolata, monospace;
background-color: transparent; font-variant-numeric: normal; font-variant-east-asian:
normal; vertical-align: baseline; white-space: pre-wrap;"> before competition.</span><br>

```

Once you paste it in, click the "code" button again to show your instructions, which should look like normal text.

Directions (shown after test start):

Please log into your Onshape account and click on "Public" on the left and type <name of file> into the "Search in Public" bar in Onshape. Once the file has been found, double click on it and near the upper left, click on "Make a copy." Then, navigate to the "Assembly" tab from the tabs at the bottom of the screen.

Rename the CAD file name to your **Team Number: School Name - Team Name (e.g. C001: Scioly High School - Scioly HS A)**. You have 20 minutes to arrange the pieces in Onshape using the instructions from the Writer.

When submitting, first double check that your file name follows the exact file name format shown above. Then, click on the "Share" button on the upper right and under "Individuals," type in <Event Supervisor Email> and click "Share".

Scilympiad will automatically grab the writer's instructions and display it in the CAdEr's

test—but only if everything was set-up exactly as described.

Providing pre-competition instructions to participants:

Copy the entirety of the “Student Instructions” (Click [here](#)) and send these instructions to coaches in advance of the competition. These instructions contain CAD software details and other pre-competition setup that may be needed.

Competition:

Providing the screenshot to the writer:

- The Event Supervisor will take screenshots from different angles and those images can be added into the scilympiad on the test. They may be displayed in text blocks with images. See step 1 of Pre-Competition (“Setting up WICI Writer and CADER events”) for more details.

Providing the writer’s instructions to the CADER:

- When the CADER opens their test, Scilympiad will automatically display the instructions from their writer.

Providing the CAD file to the CADER:

- On Onshape, the Event Supervisor should rename the file to a string of characters (something unique for students to find) For example: **vehjfkxiwq** or **e9bb36acf**.
- Under the sharing setting and under the public tab, click on “Make Public”.
- Follow step 2 of Pre-Competition and paste the introduction and directions into the test.

Submission by CADER (by sharing):

- Click on the Share button on the upper right and under “Individuals,” type <Event Supervisor Email> and click “Share”. Instructions for the CADER to submit will be given to them through the Student Instructions sheet and will be present in the test.

Grading

- Grading only has to be done in the **Writer’s** test. The system will show the Writer's portion and any message below it.

Event supervisors are encouraged to read the student instructions for more context in the [Participant Event Modification Summaries](#) section.

Team Coaches

The team coach is responsible for registering the team for the tournament and for collecting all the necessary forms required by the tournament organizers.

The team coach is also responsible for running the events after school for 3 days of a week. The testing content (questions) will be provided by the Tournament Director, and the coach is responsible for ensuring they have the technology equipment to administer the tests. Often this could mean enough computers with internet access (maybe in a computer lab), where multiple participants can take the Science Olympiad in the same room concurrently.

During tests, the team coach is responsible for administering the test and ensuring academic integrity (only allowed resources are used, etc.). If a paper version of the test is used, the team coach is responsible for collecting the answers and sending them back to the Tournament Director.

Video Calls

Event Supervisors will set up video calls if necessary for the event. Make sure at least one adult from the coach's team is present on the participant side of the video call. In the mini SO format, the participants are not allowed to be together to be equitable to all teams.

Teams sign up for fifteen minute slots that occur throughout the competition. Setup and preliminary checks occurred in the main Zoom room. Participants then move to breakout rooms with the Event Supervisor to complete anything necessary for the event.

Event Modification Summaries

For many of these events, alternate submission methods may be used (e.g. a live video call or submission of pre-recorded videos for some events with device testing). You should check for instructions from the Tournament Director and relay this information to your participants so they can be prepared for the tournament.

Anatomy & Physiology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Astronomy C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Booilever B/C

For both Satellite SO and mini SO, your tournament may replace Boomilever with Digital Structures, which can be conducted virtually through the Scilympiad and SkyCiv platforms.

See “Digital Structures B/C” for more details on the replacement event.

Chemistry Lab C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Circuit Lab B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Codebusters B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Crime Busters B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Cybersecurity C

Coaches do not need to do extra work for cybersecurity besides properly assigning students to the event.

Density Lab B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Designer Genes C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Detector Building C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Digital Structures B/C

Digital Structures can be conducted in both Satellite SO and mini SO and is a replacement event to Boomilever. Digital Structures rules may be found [here](#).

Participants will build their structures in SkyCiv during their assigned event time and will submit it within the software. Your students will need a paid license to use SkyCiv—some tournaments/states may be providing these licenses so check first before buying yourself. If your tournament/state is not providing teams with licenses, you or your students may buy a \$50 license via <http://skyciv.com/olympiad> that is valid for 8 months—good for the entire season!

Because this software is the platform on which the event takes place, you should encourage your students to practice on the software before the tournament so they are familiar with all of its functions for building structures.

Disease Detectives B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Dynamic Planet B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Elastic Launched Glider B

This event should not be conducted in both Satellite SO and mini SO formats. Please reference Helicopters B/C for more details.

Experimental Design B/C

For Satellite SO and mini SO, Experimental Design may be possible depending on the choices made by your Event Supervisor, if the materials chosen are readily available at home and allow for conducting a safe at-home chemical-free experiment (e.g. timing a ball dropping).

For BEARSO, Experiment and Data Analysis was used as a replacement event. *See “Experiment and Data Analysis B/C” for more details on our replacement event.*

Preparation for this event should be similar to the traditional preparation of the event.

Experiment and Data Analysis B/C

In addition to the traditional preparation for this event, data analysis questions will be asked as a substitute for the sections after the procedure. These questions can but do not have to be related to the first part of the test.

Food Science B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Forensics C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Fossils B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Game On B

For Satellite SO, if participants are physically together, they can share a computer as in Traditional Tournaments.

For mini SO, since participants are in different locations, the participants should create a single Scratch login for both partners so that they can both access a single file. Note that while both partners can be logged into the account at the same time, Scratch does not save the files properly if both partners are in the project at the same time. Participants should communicate with their partner (through Scilympiad, phone, or other means) to let each other know who is actively working on the file to avoid version conflicts.

Geologic Mapping C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Gravity Vehicle C

For both Satellite SO and mini SO, the event still has an unknown Target Distance which the Event Supervisor(s) will need to communicate 24-48 hours before the start of the tournament.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

Gravity Vehicle Design C

Gravity Vehicle Design, or Vehicle Design, may be run as an alternate event for Gravity Vehicle. It can be conducted in both Satellite SO and mini SO formats. Participants must write a vehicle design proposal and an interview will be conducted with Event Supervisor(s) on the day of the competition.

Coaches must schedule a spot for participants' interview before competition.

Vehicle Design rules may be found [here](#).

Helicopters B/C

In mini SO competitions, students will find a room that most likely has a flat ceiling in order to fly their Helicopter. The flight should be held in a typical room (ceiling 2.5 mm or 8 ft.).

In Satellite SO competitions, team coaches may have to proctor and overlook the competition. Otherwise, the event can be run similarly.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

If this event is conducted using video call, please refer to the requirements in the Video Calls section above.

Heredity B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Machines B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Meteorology B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Mission Possible B

For both Satellite SO and mini SO, the event still has an unknown Device Target Time which your Event Supervisor(s) will need to communicate to you through the Scilympiad test.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

Mousetrap Vehicle B

For both Satellite SO and mini SO, the event still has an unknown Target Distance which the Event Supervisor(s) will need to communicate 24-48 hours before the start of the tournament.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

Ornithology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Ping Pong Parachute B/C

This event cannot be conducted in both Satellite SO and mini SO formats.

Protein Modeling C

This event can be conducted in both Satellite and mini SO formats with modifications. Coaches should ensure that competitors download and familiarize themselves with the [Jmol application](#) before the competition. Alternatively, tournaments might allow the use of the browser-based [MSOE Jmol Design Environment](#) because it does not require any downloads.

Reach for the Stars B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Road Scholar B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Sounds of Music C

This exam portion of the event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. In both mini SO and Satellite SO, the device portion of the event can be conducted over a video call.

Water Quality B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Wright Stuff C

This event should not be conducted in both Satellite SO and mini SO formats. Please reference Helicopters B/C for more details.

Write It Do It B/C

Since this event typically requires physical materials which cannot be provided, for both Satellite SO and mini SO, this event can be replaced with Write It CAD It which can be conducted virtually through the Scilympiad platform and a free CAD software of your tournament's choosing. See *"Write It CAD It B/C"* for more details on the replacement event.

Write It CAD It B/C

A full Write It CAD It guide can be found [here](#).

Write It CAD It can be conducted in both Satellite SO and mini SO and is a replacement event to Write It Do It. Write It CAD It rules may be found [here](#).

In Scilympiad, the coach must assign students to the "Writer" and "CADer" events under Coaches → Head Coach Dashboard → Submit Student/Team Roster. Only one student can be assigned to each event part, as shown below:

Student Name	Write It CAD It- CADer	Write It CAD It- Writer
	☒	☐
	☐	☒

Participants

Participants will take tests online using Scilympiad, the online Science Olympiad platform. This platform allows the partners to see the same test at the same time. Partners can work on the same question or different question simultaneously. There is also a text-based chat for partners to communicate with one another during the event.

To ensure your answer will save properly, please make sure to use Edge or Chrome as your browser on your desktop or laptop. While most features will work on Safari as well as on tablets, phones, some critical features like chat and answer saving may not work. In addition, school furnished chromebooks may have additional restrictions which prevents some features from working properly.

Clarification on Allowed Materials

As for National's COVID rules modifications, if not already allowed, each individual participant should have a personal set of reference materials (eg. binders, single sheets of paper), calculator, or other academic resource(s) as specified in the specific event rules for use during the competition to allow social distancing, isolation, and to prevent resource sharing. For example, if the event says "Each team may bring 1 sheet of paper," the COVID rules modifications allow each participant to have a sheet of paper as their resource and the contents on the two partners' note sheets can be identical or can be different. If the event says "Each participant may bring 1 sheet of paper," each participant can still bring only 1 sheet of paper.

Scilympiad Account Setup

To get ready to take the test on Scilympiad, prior to tournament day, participants should create an account using the login ID provided by their coach. To do that, go to the tournament web page and click on "Tournament" → "Student Dashboard" then click on "Take online test using Login ID." The first time a participant logs in, the system will ask to create a password. Participants should make sure to remember their password so they can log in later on. Once logged in, participants should see a list of the events they will be taking. If they cannot see all of the events or if they see extra events, they should let their coach know as soon as possible.

Test Taking in Scilympiad

On tournament day, the participants should use the same method you used to log in before and "go" to their events at appropriate times. Once participants are on the event page, they will see the key parameters for their test (e.g. how long they have to take the test, when the test is opened, etc.). Participants also will see a chat box for them to communicate with their partner or the Event Supervisor(s). They should check with either partner first to make sure they're both ready to start

the test before clicking “Start.” As soon as either partner starts the test, the timer will start. When one partner clicks on an answer, the answer will show up on their partner’s test immediately. For free responses, the system will save the answer automatically each time a participant clicks outside of the textbox. Please save answers periodically by clicking outside of the textbox. Also, make sure only one person works on a free response question at a time. If person A writes something for a particular question, and person B is also concurrently working on the question, when person A leaves the question, it will override the contents of person B’s work. Please be sure partners work on different free response questions at any time. The only exception is for Codebusters’ cryptography questions which requires participants to click “Save Answer.”

In Scilympiad, the browser keeps track of the duration that the participant leaves the browser or goes to a different tab. To make sure the timer isn’t triggered, make sure the team is set up before starting the test (video calls, etc. connected) and that all desktop notifications are turned off.

During a test, participants will see the amount of time they have left for the event. When participants are finished, they should click “Submit.” If participants are not done by the end of the period, the system will automatically submit the answered questions when time expires.

A playlist of helpful videos for using Scilympiad from the student perspective can be found [here](#).

Video Calls

Event Supervisors will set up video calls if necessary for the event. Make sure at least one adult from the participant’s team is present on their side of the video call at all times. In the mini SO format, the participants are not allowed to be together to be equitable to all teams.

Teams sign up for fifteen minute slots that occur throughout the competition. Setup and preliminary checks occurred in the main Zoom room. Participants then move to breakout rooms with the Event Supervisor to complete anything necessary for the event.

Event Modification Summaries

Slight event modifications have been made for the 2020-2021 season in order to transition to an online testing platform. The cancellation of most gold-standard tournaments has forced many tournaments to modify events to run virtually, through either an online testing platform such as Scilympiad, or a video call through Zoom.

Anatomy & Physiology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Astronomy C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the

rules.

Boomilever B/C

For both Satellite SO and mini SO, your tournament may replace Boomilever with Digital Structures, which can be conducted virtually through the Scilympiad and SkyCiv platforms.

See "Digital Structures B/C" for more details on the replacement event.

Chemistry Lab C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Circuit Lab B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Codebusters B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Crime Busters B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Cybersecurity C

The Cybersecurity test will take place on multiple platforms:

1. **Scilympiad**, where the multiple choice will be hosted
2. **HackerRank**, where the hands-on solutions are submitted

Before the student enters the competition, they should make a HackerRank and get acquainted with the platform. Students may want to practice a few challenges before competing in the competition. The student should sign up for the HackerRank event for the tournament (An example link can be found [here](#) - this was the HackerRank event for BEARSO). Additionally, before the event, **one** of the students should submit the form where HackerRank usernames are collected. This will allow the Event Supervisors to match the HackerRank submissions coming in from a specific username to a team so that it can be scored.

When the time block for the event occurs, the HackerRank event will open and students are then able to submit answers for the problems. To do this, students can paste their answers directly into HackerRank where they can then be graded based on the test scores. To code,

students may want to use repl.it so that they can code together in real time. However, they can not submit the code directly through repl.it, they must use HackerRank. Students can use any languages provided by HackerRank, but they must stay within the bounds of time and memory provided by HackerRank:

- C, 2s, 256 MB
- C++, 2s, 256 MB
- Java, 4s, 256 MB
- Python 2, 10s, 256 MB
- Python 3, 10s, 256 MB

Students will be given a score for the hands-on portion based on the number of test cases that perform correctly.

Remember to submit the multiple choice portion on Scilympiad.

The hands-on portion for the BEARSO competition can be found [here](#).

Density Lab B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Designer Genes C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Detector Building C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Digital Structures B/C

Digital Structures can be conducted in both Satellite SO and mini SO and is a replacement event to Boomilever. Digital Structures rules may be found [here](#).

For Digital Structures, you will build a Boomilever structure in SkyCiv during the event time and will submit it within the software. You will need a paid license to use SkyCiv—some tournaments/states may be providing these licenses so check first before buying yourself. If your tournament/state is not providing teams with licenses, you may buy a \$50 license via <https://skyciv.com/olympiad/> that is valid for 8 months—good for the entire season!

Because this software is the platform on which the event takes place, you should practice on the software before the tournament so that you are familiar with all of its functions for building structures. See Peter Hung's Digital Structures tutorial [here](#) and Scioly.org's SkyCiv

tutorial [here](#). Remember that to compete in SkyCiv you will need to enable the Science Olympiad add-on!

During the competition, before you start building, you will need to check for the two unknown values described in rule 4.a.—the Event Supervisor might provide these values via Scilympiad. Be sure to record these values on paper because you will not be able to access the Scilympiad test after submitting your Estimated Load Scored.

After you have completed building and testing your structure, you will need to submit through the Science Olympiad add-on in SkyCiv. When submitting, make sure you select the correct tournament and include your correct team number, school name, and team name. If you submit to the wrong tournament, there will be no way for your tournament to process your submission!

Disease Detectives B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Dynamic Planet B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Elastic Launched Glider B

This event should not be conducted in both Satellite SO and mini SO formats. Please reference Helicopters B/C for more details.

Experimental Design B/C

For Satellite SO and mini SO, Experimental Design may be possible depending on the choices made by your Event Supervisor, if the materials chosen are readily available at home and allow for conducting a safe at-home chemical-free experiment (e.g. timing a ball dropping).

For BEARSO, Experiment and Data Analysis was used as a replacement event. See *“Experiment and Data Analysis B/C” for more details on our replacement event.*

Preparation for this event should be similar to the traditional preparation of the event.

Experiment and Data Analysis B/C

In addition to the traditional preparation for this event, data analysis questions will be asked as a substitute for the sections after the procedure. These questions can but do not have to be related to the first part of the test.

Food Science B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Forensics C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Fossils B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Game On B

For Satellite Tournament, make sure to follow Event Supervisor instructions on how to submit your file.

For mini Tournament, each team should create a single Scratch login for both partners so that they can both access a single file. Note that while both partners can be logged into the account at the same time, Scratch does not save the files properly if both partners are in the project at the same time. Participants should communicate with their partner (through Scilympiad, phone, or other means) to let each other know who is actively working on the file to avoid version conflicts.

Geologic Mapping C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Gravity Vehicle C

For both Satellite SO and mini SO, the event still has an unknown Target Distance which your Event Supervisor(s) will need to communicate to you 24-48 hours before the start of the tournament.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

For both mini and Satellite SO, the Practice Log may be due prior to the actual competition date. Please check with your tournament to make sure the practice log is submitted on time.

Gravity Vehicle Design C

For mini SO and Satellite SO tournaments, participants must write a vehicle design proposal to be turned in before competition. On the day of competition, participants will conduct an interview with the Event Supervisors.

Vehicle Design rules may be found [here](#).

Helicopters B/C

In mini SO competitions, students should find a room that has a mostly flat ceiling in order to optimally fly their Helicopter.

In Satellite SO competitions, team coaches may have to proctor and overlook the competition. Otherwise, the event can be run similarly.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

If this event is conducted using video call, please make sure the requirements for video calls are satisfied by having at least one adult on the video call and ideally in the same room as each of the participants.

Heredity B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Machines B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Meteorology B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Mission Possible B

For both Satellite SO and mini SO, the event still has an unknown Device Target Time which your Event Supervisor(s) will need to communicate to you through the Scilympiad test.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

For both mini and Satellite SO, the Action Sequence List may be due prior to the actual competition date. Please check with your tournament to make sure the practice log is submitted on time.

Mousetrap Vehicle B

For both Satellite SO and mini SO, the event still has an unknown Target Distance which your Event Supervisor(s) will need to communicate to you 24-48 hours before the start of the tournament.

The Event Supervisor(s) will communicate to you whether the event will be judged through a live video call or pre-recorded video. Specific submission directions will also be given.

For mini SO, this event can be run by having participants set up tracks in their homes, with parents acting as their own supervisors.

For Satellite SO, this event can be run similarly—with the exception of having a coach, rather than a parent, overlooking the event.

For both mini and Satellite SO, the Practice Log may be due prior to the actual competition date. Please check with your tournament to make sure the practice log is submitted on time.

Ornithology B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Ping Pong Parachute B/C

This event cannot be conducted in both Satellite SO and mini SO formats.

Protein Modeling C

The computer exploration portion (Part 2) will require participants to download any version of the [Jmol application](#) to their computer, which also requires a Java Development Kit. Alternatively, if tournaments allow it, participants may use the browser-based [MSOE Jmol Design Environment](#) instead, which does not require any downloads. For Regional and State Tournaments, the link for the web-based visualization will be provided by MSOE and the link can simply be included in the Scilympiad test. Be sure to check the box that the link is to be opened on a new page. Regardless of the way the participants will access the protein visualization portion, this event should not have the timer checked for the duration the participants are outside of the browser.

Reach for the Stars B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Road Scholar B

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules.

Sounds of Music C

This exam portion of the event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. In both mini SO and Satellite SO, the device portion of the event can be conducted over a video call. The Event Supervisor(s) should provide instructions for video calls if applicable.

Water Quality B/C

This event can be conducted in both Satellite SO and mini SO formats with no changes to the rules. However, a hands-on lab component cannot be run.

Wright Stuff C

This event should not be conducted in both Satellite SO and mini SO formats. *Please reference Helicopters B/C for more details.*

Write It Do It B/C

Since this event typically requires physical materials which cannot be provided, for both Satellite SO and mini SO, this event can be replaced with Write It CAD It which can be conducted virtually through the Scilympiad platform and a free CAD software of your tournament's choosing. *See "Write It CAD It B/C" for more details on the replacement event.*

Write It CAD It B/C

Full student instructions may be found [here](#). Below is a summary of the previous link.

Write It CAD It can be conducted in both Satellite SO and mini SO and is a replacement event to Write It Do It. Write It CAD It rules may be found [here](#).

The software used is Onshape. An educational license is available for free at <https://www.onshape.com/en/education/> for educators and students. The CADER should create an account on this page prior to the tournament.

Writer:

Once the Writer starts the test in Scilympiad, they will see a link to a PDF or presentation of the screenshots. They will have 25 minutes to type instructions into the free response box. The Writer's instructions are saved every time the Writer clicks outside of the free response box. Once the writer is finished, they may submit. Moreover, when the 25 minutes elapse, the instructions will be automatically turned in.

CADER:

The CADER should log into their Onshape account prior to competition. At the 30 minute

mark after the start of the session, the CADER may start the test on Scilympiad. In the test, the instructions of the Writer will be displayed.

In addition, instructions on how to obtain the files from Onshape, such as the file name, will be present:

1. The CADER should click "Public" on the left and search for the given file name, using the "Search in Public" bar.
2. Double-click and open the file.
3. In the top left, select "Make a copy" to duplicate the file.
4. Name your copy of the file in the exact format shown: "Team Number: School Name - Team Name"
(e.g. C001: Scioly High School - Scioly HS A)

Failure to follow the exact format given may result in your work being unscored.

5. If you only see one piece when you open the file, navigate to the "Assembly" file through the bottom tabs (it may be called "Assembly 1").
6. You have 20 minutes to arrange the pieces with the instructions given to you by your Writer in Scilympiad.
7. Submission:
 - a. Double-check that your file name follows the file name format from step 4.
 - b. Click on the "Share" button on the upper right and under "Individuals," type in the email provided in Scilympiada and click "Share".
 - c. The CADER will not submit anything through Scilympiad, but only through the sharing function of Onshape.

If you have any questions, contact the Tournament Director of your tournament.