

Central District Science Day, Saturday, March 16, 2019

Teacher Instructions

Teacher Information:

1. Schools may enter students in grades 5-12 who have received a superior rating at the local level. Individual and Team projects (up to 3 members) are eligible.
2. Registrations will be completed using the STEMWizard management system. You can register the students or they can register themselves. There are NO PAPERS to collect, but electronic files of the ISEF project forms must be uploaded or completed during the registration process. Forms may be backdated.
3. Students register at the **registration site at <https://oasd7.stemwizard.com/> by selecting “register” and then “student” and following the prompts. After they register, they need to re-log in and follow the prompts.**
4. STEMWizard has created apps that will allow you and your students to take pictures of the required forms using devices and then upload the images as part of the registration process.

The name of the app is “STEM Wizard Form Uploader”. It is available in iOS and Android.

5. Fees are \$17.00/student. [Team fees (2 students \$34, 3 students \$51)] Checks can be made payable to Central District Junior Academy of Science. **WE CANNOT ACCEPT PURCHASE ORDERS.**
6. Once you have received confirmation from Larry that your registration process was successful, send or drop off the registration materials (list of students and checks) to Dr. Sharon Stickley. They **MUST BE** received by Friday, March 9th.
Dr. Sharon Stickley (614-287-5201, sstick11@csc.edu)
447 Nestor Hall,
Columbus State Community College
550 E Spring St.
Columbus, OH 43215
7. **We ask that you register 1 judge for every 3 projects that you register. Parents may judge if they feel qualified to do so. There are plenty of projects. They can easily avoid students they know.**
8. **Many volunteers are also needed. Please encourage parents who do not feel qualified to judge to consider volunteering.**
9. **School Awards:** All schools sending at least 5 projects that earn an average rating in the “Superior” range receive a school award.

10. State Science Day:

The Central District has a predetermined quota for the State Science Day. The Ohio Junior Academy of Science policy for districts to follow to fill State Science Day quotas is as follows: projects earning

40 points:	Grades 12, 11, 10, 9, 8, 7, 6, 5
39 points:	Grades 12, 11, 10, 9, 8, 7, 6, 5
38 points:	Grades 12, 11, 10, 9, 8, 7, 6, 5
37 points:	Grades 12, 11, 10, 9, 8, 7, 6, 5
36 points:	Grades 12, 11, 10, 9, 8, 7, 6, 5

A lottery will be used to break ties. **Students who qualify for State Science Day will be notified by email if they are unable to stay for the awards ceremony.**

11. Science Day Standards. Additional information regarding expectations can be found at The Ohio Academy of Science web site.

<https://tinyurl.com/science-fair-standards>

The Ohio Academy of Science

Science Day Standards

Report & Display

Research Report

Required Research Report Each project must include a research report covering in detail all of the work, references consulted, and acknowledgement of assistance received. The experimental data, statistics, notes, and computations should be recorded in a research notebook. The report should include a description of the work, the results, and the conclusions. This report should follow an accepted form of technical reporting and be checked for correct punctuation, spelling, and grammar preferably by an English teacher. If possible, the report should contain illustrations in the form of photographs, sketches, graphs, data tables or chart that contribute to the effectiveness of the material presented. The Ohio Academy of Science recommends the following format for sections of the research report:

- Title Page including the date and name of student

- Table of Contents (optional for reports fewer than 10 pages)

- Abstract

- Background Information

- Problem and hypothesis or problem and design statement

- Methods and Materials used to study the problem

- Results, including an analysis of collected data with graphs, tables, photographs, and diagrams to illustrate investigation

- Conclusions and Implications for further research

- References or Literature Cited

Expectations of Display: Present Results

Students are expected to present the results of research. They are not expected to perform, demonstrate or repeat an experiment for judges or visitors. Students should have already done an experiment or conducted many research trials and thus have adequate results in the form of charts, graphs, data tables, and a research notebook—all recorded with dates—which should be with the project display. Equipment used in research is not needed for a presentation and must be left in the laboratory or at home. Use photographs or drawings of equipment on the poster boards, in the technical report and in the research notebook to document and explain the equipment used. Items on the display backdrop, or poster boards, should be used as visual cues to keep the student's oral presentation to the judges on track or to refer to when responding to questions. The whole project, in simple form, should be visible on the poster boards. Abstracts, a research notebook, technical reports, and additional data should be in folders or for immediate reference.

Computer Simulations

Battery-powered computers may be used only for simulation, modeling, animation or data display integral and essential to understand, analyze or interpret the project results and not for general PowerPoint™ or other visual or sound presentations. Electricity will not be provided.

Items Allowed at Project with the Restrictions Indicated

Posters should display an abstract and data tables, diagrams, charts, photographs and graphs that summarize results. Research notebooks, research reports, research plans and documentation of research protocols are **expected** and may be in notebooks or folders on the table for use by science day officials and judges. Information such as postal, web and e-mail addresses, telephone and fax numbers is allowed only for the exhibitor. The only photographs or visual depictions of identifiable or recognizable people allowed are photographs of the exhibitor, photographs taken by

the exhibitor (with permission of individuals received), or photographs for which credit is displayed (such as from magazines, newspapers, journals, etc.). Battery-powered computers may be used only for simulation, modeling, animation or data display integral and essential to the project results and not for general PowerPoint™ presentations.

Items Not Allowed at Project Display

If an item is not listed in the paragraphs above it is **not permitted** at District or State Science Days. Scientific equipment and supplies, other apparatus or research paraphernalia are not permitted at a display at District or State Science Days.

For a complete listing, view display information at <https://tinyurl.com/science-fair-standards>

Display Size limitations

30" deep, 36" wide, 7' high

Teacher Checklist

Well before District Science Day

- ◇ My students have gone to the ISEF Rules Wizard and printed out the pages necessary for their project, OR the necessary documents were completed online during the registration process.
- ◇ I have signed off on each student's required forms as determined by the ISEF Rules Wizard.
- ◇ I have duplicated and distributed the student packet for each student that will be sent on to the Central District Science Day.

By March 7th

- ◇ I have confirmed that the students have completed their registration
- ◇ I have either collected \$17 from each student or secured a check for the total registration fees. (NO CASH PLEASE).
- ◇ My school has provided enough judges (entered online at Stem Wizard) to accommodate the number of projects we are sending

By March 8th

- ◇ After checking Stem Wizard to verify my students have registered, I have mailed **or** hand-delivered the fees and a list student participants to Dr. Sharon Stickleby.

By March 15th

- ◇ I have verified that students know their space number.
- ◇ I have reminded students what they are NOT ALLOWED to have at their display. I AM AWARE THAT IF A STUDENT'S DISPLAY IS IN VIOLATION THE PROJECT MAY BE DISQUALIFIED FROM THE SCIENCE FAIR.

**The Ohio Academy of Science
Consent and Release Agreement**

Required for participation in District and State Science Days, the Annual Meeting, Buckeye Science & Engineering Fair and any other activity of The Ohio Academy of Science.

In consideration of the right and opportunity of the undersigned to attend and participate in District and State Science Days, the Annual Meeting or any other activity, program or event of The Ohio Academy of Science, the undersigned for him/herself and for his/her heirs and legal representatives hereby:

1. Fully and forever releases The Ohio Academy of Science (herein referred to as the Academy), and all of its past, present, and future affiliates, officers, directors, trustees, judges, peer-reviewers, committee members, employees, attorneys, agents, successors and assigns, and each of them, from any and all claims, damages, and causes of action of whatsoever kind or nature resulting from or relating to the undersigned's involvement, participation in or attendance at the activity, program or event;
2. Authorizes the Academy and any of its agents to provide, obtain, or designate any reasonable medical treatment and/or emergency medical treatment in the event of illness, injury, accident or incapacity of the undersigned;
3. Agrees to abide by all regulations and rules established by the Academy;
4. Agrees to indemnify the Academy against, and to save it harmless from, any and all damages, actions, causes of action, claims, judgments, executions, debts, costs of litigation and attorney fees which may in any way arise out of, or result from, the use by the undersigned of the property and facilities owned, used, or rented by the Academy;
5. Grants to the Academy, and its successors, assigns, agents, grantees, and licensees, the right to take and reproduce writings, photographs, films, and voice recordings of the Undersigned while the undersigned participates in the program, and to use the same and the undersigned's name and any past, current, or future biographical information submitted to the Academy for any and all purposes and in any manner, including commercial publications and advertisements of all kinds in all media;
6. This Consent and Release Agreement contains the entire agreement and understanding between and among the parties as to the subject matter hereof, and shall be binding upon the undersigned and the undersigned's heirs, administrators, executors, and assigns.

I have read and understand each of the above paragraphs. I understand that by signing this Consent and Release Agreement, I give up valuable rights.

Signature of Participant _____ Printed Name _____
Date _____ Date of birth _____
Street Address _____
City State Zip _____ Phone () _____

The following is required for minors: In consideration of the services and facilities provided by the Academy, I, (print name) parent and/or guardian of the above Participant, a minor, hereby give my express consent to the execution of this Consent and Release Agreement and that I assume all liability and obligations of Participant as set forth in said paragraphs.

Signature of Parent _____ Printed Name _____
Date _____

Dear Parent,

Each year, we require over 200 judges and volunteers to operate our district science fair. Without the support of parents like you, we would not be able to provide this opportunity to your child. Please consider helping out.

Some areas where we need assistance include

Judging	from 8:00 – 11:30
Triage (help students find their spots)	from 7:15 – 9:00
Registration	from 7:30 – 9:30
Runner	from 9:00 - 11:00 or 10:30 – 12:30
Tally Room	from 9:00 – 11:00 or 11:00 – 1:00
Exhibit room monitor	from 9:00 – 10:30 or 10:30 - 12:00

If you think you may be able to help, please log on to our registration site at <https://oasd7.stemwizard.com/> and select “register” and then “judge” or “volunteer” and follow the prompts. Thank you!!

Central District Science Day, Saturday, March 16, 2019

Student Information

REGISTRATION

1. Your teacher has a list of sponsored awards and their criteria from companies, organizations, and agencies for which you may be eligible. Awards may include certificates, plaques, savings bonds, calculators, microscopes, or even cash.
2. Students register at <https://oasd7.stemwizard.com/> by selecting “register” and then “student” and following the prompts. After you register, you may need to re-log in and follow the prompts.
3. Fees are \$17/student (teams = \$17/student). Checks should be made payable to Central District Junior Academy of Science. Discuss the payment with your teacher. Different schools have different policies regarding registration fees.
4. Parents or mentors of participants may wish to consider serving as a volunteer or judge. They can use the same registration site to do so.
5. You will need your ISEF forms to register. (Earlier in your project you may have used the “Rules Wizard” at <https://ruleswizard.societyforscience.org/> to determine which forms you needed. If not do so ASAP). If you do not have the ability to scan them, you can also use an app STEM Wizard has created that will allow you to take pictures of the required forms using devices and then upload the images as part of the registration process.

The name of the app is “STEM Wizard Form Uploader”. It is available in iOS and Android.

What to do Before Science Day:

1. Maps, deadlines, and space assignments will be sent to the email address that you enter at the Stem Wizard registration site.
2. **Floor displays are not permitted at District or State Science Days.** Each display should be accompanied by a legible report. The report should include COPIES of your ISEF forms.
3. Review the rules for display before you come to Science Day. Any violations of the safety agreement may result in disqualification.
4. Review the schedule before you come to Science Day.

On Science Day:

1. Neat appearance is important. Look good for the judges and don't chew gum while talking.
2. Bring your display, report, special forms, chair (the chair is optional, but recommended. You may also want to bring along a book to read while you are not being judged.
3. When you arrive at Delaware Hall, unload your project quickly, and have the driver move the car to any student parking area. Take your project immediately to the appropriate room and space, then register.
4. Do not leave your project during judging until it is announced that judging is complete.
5. **Courteous behavior towards other participants, judges and volunteers is expected. Disrespectful or disparaging comments and or behavior can result in disqualification.**
6. Do not dismantle your project until project breakdown is announced. You are responsible for removing all materials from the display area.
7. Food is available at the food court if you want to bring money for lunch.
8. Your safety is an important concern to us. Please report any unusual occurrences to a volunteer immediately. Any adults which are not judges or District Science Day volunteers should not be in the area of the projects or participants.

Central District Science Day Judging:

1. Parents **are not permitted** in the gymnasium or other rooms with projects during judging.
2. **There are two types of judging, regular and Sponsored Awards Judging** All judging begins promptly at 9:00 a.m. Students must remain with projects until it is announced that judging is complete.
3. For **regular judging**, each project will be judged by a pair of judges. Each judge will rate the project individually and the scores of both judges will be averaged. Regular judging determines which projects will advance to State Science Day and which schools receive school awards.
4. If a student is absent when the judging team arrives, the project may be disqualified. Projects will be judged according to the attached judging criteria. Judges decisions are final. If the judges' scores meet the strict criteria set forth by the Academy's policy for re-judging, the project will automatically be re-judged.
5. **Sponsored Awards** judges may look at your project. They may also look at projects of participants that have not signed up for their award. Even though you may sign up for a sponsored award, the judges for that award choose which projects that they will look at. Projects they choose to see are beyond your control and the District Science Day Council's control.
6. Registration materials for State Science Day, May 9th, will be distributed immediately following the awards assembly for students that qualify. **If you are unable to stay until the end of the awards ceremony, we will attempt to contact you through email with the necessary information.**

	SUPERIOR	EXCELLENT	GOOD	SATISFACTORY
KNOWLEDGE	10-9	8-7-6	5-4-3	2-1
EFFECTIVE USE OF SCIENTIFIC METHOD	10-9	8-7-6	5-4-3	2-1
CLARITY OF EXPRESSION	10-9	8-7-6	5-4-3	2-1
ORIGINALITY AND CREATIVITY	10-9	8-7-6	5-4-3	2-1

1. Minimum number of points for each rating: Superior (36), Excellent (24), Good (12)
2. The following sections are given as an interpretation of the various criteria on which the project or exhibit will be judged.

A. KNOWLEDGE ACHIEVED -- (CONSIDERING STUDENT'S AGE AND GRADE LEVEL)

1. Has there been correct use of scientific terms? Does he/she understand these terms?
2. Is there evidence of an acquisition of knowledge (depth) through the research or has he/she merely acquired a manipulative technique?
3. Does he/she show evidence of knowing what the underlying principle(s) is (are)?
4. In brief, has he/she actually learned something through his/her study and research above and beyond his/her level of classroom work?

B. EFFECTIVE USE OF THE SCIENTIFIC METHOD

1. Does the student have a clear-cut idea of the purpose of his/her project, or is it something thrown together and manipulated? While the mere assembly of a "kit" is frowned upon, there can be a definite research approach wherein there may be an effective use of scientific method(s). However, it should not be the principle element of the display.
2. Is he/she aware of other approaches or theories relative to his/her problem or project?
3. Is there evidence of literary and/or experimental research? Has he/she been thorough and have there been prolonged or sustained experimentations?
4. Has he/she observed any basic phenomena?
5. Has he/she experimented sufficiently to have collected any data?
6. Has he/she analyzed his/her observations in a logical manner and drawn valid conclusions?
7. Has he/she used an adequate sample to make generalizations?

C. CLARITY OF EXPRESSION

1. Can he/she orally explain his/her project concisely and answer questions well? Discount a "glib tongue", but try to weigh evidence of nervousness when talking to a "pro" as you are considered. Watch out, however, for a memorized speech with little understanding of principles.
2. Has the participant expressed himself/herself well in all written material, such as the abstract and research report? Consider that this material might have been copied or written by another person.
3. Is the physical display neat and sufficiently definitive? Discount printed posters and professional placards unless you have evidence that the participant has made them and has a depth of knowledge of such material.
4. Beware of misspelled words.
5. Does the research report include a literature review, experimental data, statistics, results, and conclusions? Does it follow an accepted form of technical reporting?

D. ORIGINALITY AND CREATIVITY

1. Is the problem or approach to the problem developed in a particularly significant or unique manner? It is true that the approach may not be new to the judge, but does he/she show enthusiasm that one less versed in the subject or phenomena might think it was "brand new"?
2. Has he/she a new approach to an old subject?
3. Has he/she a unique presentation or organization of materials?
4. The assembly of a "kit" may not be original or creative but again, it may be a new and unique approach to a problem and may economize on time and effort.
5. Is there evidence of initiative? Place premium on the ingenious use of available materials and hand-made elements. Collections and manufactured apparatus can be creative if they are assembled and used to achieve, show, or prove a stated purpose.

How to AVOID Violations at Ohio's District and State Science Days:

1. Be certain that all relevant ISEF forms are used and completed correctly.
2. Do not have a display larger than 36" wide, 30" deep and 85" tall (from the floor) (55" from a 30" table top). NOTICE THESE DIMENSIONS ARE NOT THE SAME AS APPROVED FOR THE ISEF.
3. Try to avoid using brand names in your title and on your display board.
4. Be certain to have the required "photo credits" compliance form on the front of your display.
5. Be certain to have listed who took any photographs on the display.
6. Have all permission forms (if applicable) neatly. DO NOT EVER SEND OR BRING YOUR ORIGINAL FORMS TO ANY SCIENCE FAIR.
7. Be certain to READ the list of items that cannot be displayed on your display board or at your project.
8. Avoid using three dimensional lettering that protrudes more than 1 cm from the display board.
9. Do not use thumbtacks, pins, or other sharp items on your display board or anywhere else in your display.
10. Place mentor(s) and collaborator names within the report, not on display board.
11. Place religious or moral quotations or statements in the report and not on the display board.

ITEMS TO HELP YOUR SCORE AT DISTRICT AND STATE:

1. Make certain that your display is neat and orderly, follow the suggestions provided by the Ohio Academy of Science for a display board.
2. Check that all words on the display board are spelled correctly and that the lettering is easy to read.
3. Have the scientific report available for the judges to review. (Ask nicely that they do not leave with it.)
4. Make certain that your report is organized and has the different sections specifically identified. (ie: Hypothesis, Researched Data, Procedure, Experimental Data, Conclusion(s), Discussion, Source Citations, etc.)
5. Have your log book/experimentation notebook/binder at your display. Do not worry if it is not neat. Points are awarded for having it and in the details/measurements/observations that you recorded.
6. PRACTICE YOUR PRESENTATION MANY TIMES PRIOR TO DISTRICT AND STATE JUDGING! Do not memorize the talk or have the presentation completely written out on notecards. Judges do not like to hear people reading directly from notecards or hear an obviously memorized speech. They question whether the student really knows what they are talking/reading about. This can lead to frequent interruptions of the presentation just to see if the student can answer the question and then continue with the presentation. Make certain that you make eye contact with the judges and do not focus just on one judge.
7. Be certain to introduce yourself to the judges. Also, be sure to state your grade level to the judges. Younger students are not expected to know as much as older students and sometimes, a younger student can be mistaken as an older student.
8. DO NOT try and bluff your judges. If you are not certain about an answer to a question, say so. However, if you have an idea that might be the answer, say something like "I am not certain, but I think that..." You should also include the reason why you "think that".
9. Thank the judges and offer to shake hands with them after judging.

ABSTRACT REQUIRED

Each student must submit an abstract containing no more than 250 words. A heading must contain the project title and name(s) of the author(s). The heading does not contribute to the word count. **ABSTRACTS ARE REQUIRED and MUST** be submitted for both District and State Science Days.

The purpose of an abstract is to provide a summary of your project that will inform interested individuals of the contents. The wording must be written in a manner that any scientifically minded individual, who may not be familiar with your topic, can understand the project's important points.

The following should each be summarized in a few sentences:

- 1) Background information necessary to understand the project and its importance.
- 2) The problem that was investigated and your hypothesis.
- 3) Outline of the materials and methods used in your experimentation.
- 4) Summary of the results obtained from your experimentation.
- 5) The conclusions drawn from your results.
- 6) The importance or potential applications your research offers.

In your abstract, do not be concerned with including all of the details. The key point to remember when writing an abstract is to keep the wording brief and concise. Use complete sentences. Avoid personal pronouns. Abstracts should only provide necessary information needed to understand the project's basic points and importance.

Student Checklist

Well before District Science Day

- ◇ I have gone to the ISEF Rules Wizard and printed out the pages necessary for my project.
- ◇ I have signed the required forms as determined by the ISEF Rules Wizard and gotten the appropriate adult signatures as well.
- ◇ I have read through ALL materials in the registration packet.
- ◇ I have registered online and submitted all documents electronically (ISEF forms)
- ◇ I have read the display rules and have made sure that I have no materials in my display that violate the rules. I AM AWARE THAT IF MY DISPLAY IS IN VIOLATION I MAY BE DISQUALIFIED FROM THE SCIENCE FAIR OR MY SCORE MAY BE LOWERED.
- ◇ I have a folding chair/sports chair to bring with me on science day in case I want to sit down.

Before March 16th

- ◇ I know my space number, room assignment, and entry point
- ◇ I have the map and directions to Columbus State
- ◇ I have my display and written report ready to go
- ◇ I have COPIES of the required forms (as determined by the ISEF Rules Wizard) with my written report
- ◇ I have money for lunch

CENTRAL DISTRICT SCIENCE DAY 2019

MARCH 16

Welcome to Central District Science Day!

- **JUDGING** takes place from 9:00 am to approximately 11:30 am.
- **RE-JUDGING** occurs between 11:30 am and 12:30 pm. Re-judging will be based on project display, abstract, and report materials only. *STUDENTS NEED NOT BE PRESENT FOR RE-JUDGING.*
- **PUBLIC VIEWING OF PROJECTS** begins when judging is completed at approximately 11:30 am and continues until 12:30 pm. Visitors and participants are asked to refrain from speaking to judges who may be involved in re-judging.
- **PROJECT BREAKDOWN** begins at 12:30 pm. Students are asked to have their projects removed by 1:00 pm. This is especially important for the gymnasium where chairs must be set up for the awards ceremony.
- **LABORATORY** tours are available for families (9:30-11:30 am) and for presenters (1:00-2:00 pm). Sign up when you register and see what happens in a college laboratory!
- **COLLEGE COACH** presentations are available for families (9:30-10:30 am) and for presenters (1:00-2:00 pm) in Nestor Hall Auditorium.
- **AWARDS CEREMONY** will begin at approximately **2:15 pm** in the gymnasium. Students eligible to go to State Science Day will be announced at the awards ceremony.
- **INTERNET ACCESS** is available using CSCC-Guest access. Log in through your device and accept the usage agreement. For IT help, contact the IT Help Desk (614-287-5050). Firefox is the recommended browser.

Directions to Columbus State

Use 600 Grove St, Columbus, OH 43215 for a mapping or GPS destination

