CASEF FALL TEACHER MEETING 2022-23

CAPITAL AREA SCIENCE & ENGINEERING FAIR

IN-PERSON FAIR FORMAT

Teacher handbook www.casef.org under "What We Have" – Resources

Slideshow will be posted under resources on website

WE ARE . . .
MOO – VING . . .

The 2023 fair will be an **in-person** event and it will be held March 6-9, 2023.

By-Laws Change

It is the recommendation of the Board of Directors to remove the age limit for Board Officers.

- ARTICLE IV: Governance

- Section I.

- The Executive Committee shall, on an annual basis, conduct performance evaluations of each Representative which shall include review of the Representative's attendance at Board meetings, participation in Board and Committee work, and financial support of the organization. The President of the Board shall notify Representatives who are not re-nominated or re-elected for a second or third term. In addition, any Representative may be removed from office for cause by a majority vote of a quorum of the Board

- Section II.

- Officers of the Board shall consist of a President, President-elect, Recording Secretary, and a Treasurer. These officers, who shall all be Members of the Board, shall serve on the Executive Committee. Officers of the Board shall be elected to two-year terms at the Annual Meeting, from among current Board Members. No Representative shall be eligible for election or reelection as an officer, who shall have attained age seventy-five (75) by the Annual Meeting, but otherwise officers shall be eligible for unlimited reelection. Officers of the Board shall serve without compensation. In case an officer dies, resigns, is removed or otherwise becomes unable to perform the duties of office or no longer meet the criteria of a board member the vacancy may be filled at the next Regular or Special Meeting of the Board upon proper notice. The Board shall have the power to appoint interim officers or vote to retain board member who wishes to continue serving as may be deemed appropriate or complete

BroadcomMASTERS

1800+ applicants, 300 semifinalists, 30 finalists

CASEF had 3 Semifinalists!

- **Arman Kazi**, *Grade:* 7th
  School: Hershey Middle School
  Project Title: Application of Sustainable Energy-Powered Drone for Surveillance and Rescue Operations During Disasters

- **Angel Mary Mathews**, *Grade:* 7th
  School: Mountain View Middle School
  Project Title: The Effect of pH on Juice Balls

- **Shaunak Dalal**, *Grade:* 8th
  School: Hershey Middle School
  Project Title: Effect Upon Closure Dynamics of the Application of Weak Acids to the Pulvinus of the Venus Fly Trap

SHAUNAK DALAL WAS SELECTED AS A FINALIST (Top 30) He was awarded $500 and his teacher Kaitlyn Roberts (Hershey MS) will be awarded $1000 for STEM activities. He will travel to Washington, D.C. October 28- November 2 to compete for more than $100,000 in additional prizes and scholarships.

Broadcom MASTERS - Society for Science

Or contact us at
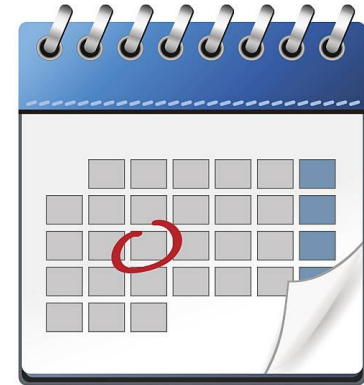casefyoungscholarsprogram@gmail.com

SCAN ME

NEW ELEMENTARY PROGRAM

Share with your elementary staff and see the website for details.
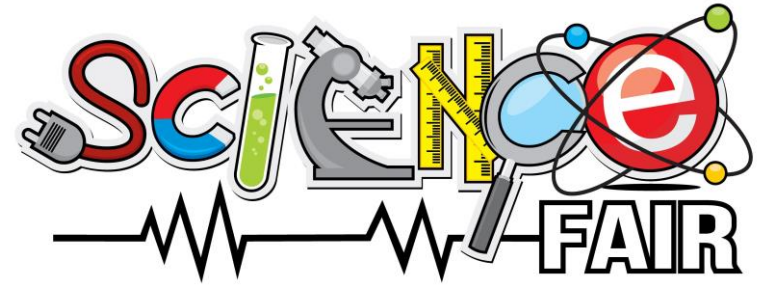Deadlines have been extended.

CASEF YOUNG SCHOLARS
Grades 5 & 6

CALENDAR

- **November 7th – WORKSHOP for students and teachers. TOPICS: Rules and Forms, Data Collection and Statistics, Journaling, Display and Video Tips 6 – 8pm** Harrisburg Christian School, 2000 Blue Mountain Parkway (Linglestown) Harrisburg 17112

- **November 18** Deadline for SRC Prior Approval Requests*

    approval may be submitted earlier to allow for more research and experimentation.

    *Approval must be granted **BEFORE** research can begin*

- **December 9** All prior approval responses will be completed and returned via STEMWIZARD

- **January 10** Deadline for ALL project entries

- School Registration and fees due

- ***January 12 – Deadline for TEACHERS/SPONSORS to review entries and make revisions**

    Electronic Inventory Forms due with student rankings 10 PROJECTS LIMIT

    ADDITIONAL PROJECTS MAY BE SUBMITTED FOR CONSIDERATION ADDITIONAL FEE $15 DUE UPON NOTIFICATION

- **January 21** Category Selection Committee

- **January 23** - emails regarding omissions/corrections and failure to qualify/acceptance of additional projects

- **January 25,11:59pm** (Friday) ePOSTMARK DEADLINE for corrections/omissions

- **Week of February 6** – Project numbers assigned – *teachers can see numbers on STEMWIZARD*

- **February 8** Additional project fees due

- **February 24** All STEMWIZARD ENTRIES MUST BE COMPLETE (project summary with active video link)

- **February 27** Projects released to the judges

- **March 6-9 Fair Week**

    *Monday S*et up 4- 7pm

    Tuesday Judging Day 9 – 1:30 NO LUNCH ON CAMPUS

    Wednesday Grand Champion Judging

    Thursday Award Ceremonies Evening times TBD

Young Scholars Calendar www.casef.org

Fair Week – March 6-9

- **Monday – set up 4-7pm** *We need help certifying*

- **Tuesday** – 9am to 12:30 Judging Senior Interviews 9 – 10:30, Junior Interviews 11-12:30

    NO LUNCH ON CAMPUS

- **Tuesday by 5pm – grand champion call-back notifications**

- **Wednesday – Grand Champion Judging by appointment 9 - 12**

- **Wednesday- Thursday Open to public 12 – 6pm**

- **Thursday – Award Ceremonies Time TBD**

    Remove displays by 10pm

FALL WORKSHOP – November 7th

Students and teachers welcome.
TOPICS: Rules and Forms
              Data Collection and Statistics*
              Journaling
              Display and Video Tips

6 – 8pm Harrisburg Christian School
              2000 Blue Mountain Parkway (Linglestown)
              Harrisburg 17112

Cost $10/student (cash) - payable at the door
Students must be accompanied by an adult.

* Remember survey projects MUST have statistical analysis and a minimum number of data points.
   See Survey Policy on page 15 of handbook.

IRB – *Institutional Review Board*

Purpose: Approve projects that pose minimal risk – *See page 16-17 of handbook*

Members: Non-sponsoring teacher, administrator, and medical or mental health professional

Determination: Review Form 3 to determine mitigation of risk

Human Participants Form 4 and Human Consent Form

Approval: Signatures needed on Forms 1B, 2A , 4 and start date is AFTER approval

Projects that involve vertebrate animals, microbiology, or humans with more than minimal risk need to be approved by SRC

NO RESEARCH CAN BEGIN UNTIL PROJECT IS APPROVED

2023 CHANGES SUMMARY

❖ We have not yet moved into our new office. Please note there is an office address and a mailing address.

❖ **NEW FAIR VENUE – Penn State Harrisburg** New structuring fees limited participation to **10** projects per school registration. If additional placements are available, sponsors may apply for the open positions. Please limit the teacher inventory to 10 projects. **ALL PROJECTS MUST BE RANKED ON THE INVENTORY** – strongest project in #1 and weakest in #12. ONLY 10 spots per school are guaranteed. Additional project requests can be submitted on a separate form. *See website for additional form.*

❖ This is an IN-PERSON event (100-mile exception still in effect) *See calendar for event days and times.*

❖ **New Category – ENVR** Environmental Science

❖ Award ceremony planned for Thursday evening. Time TBD – live stream will be available.

❖ Implementation of a new elementary program . CASEF Scholars will be open to grades 5 & 6 and displayed at CASEF.

❖ BroadcomMASTERS will be changing to Thermo Fisher Scientific Middle School STEM Competition in 2023

❖ Judging Day Seniors 9 -10:30 and Juniors 11 – 12:30   NO LUNCH ON CAMPUS PSU will offer tours and demonstrations during the judging sessions. We will need a participation count.

2023 CHANGES SUMMARY Pages 16 & 17

Sponsor Responsibilities

❖ Workshop for students and teachers. TOPICS: Rules and Forms, Data Collection and Statistics, Journaling, Display and Video Tips 6 – 8pm Harrisburg Christian School, 2000 Blue Mountain Parkway (Linglestown) Harrisburg 17112   COST $10 per student

❖ Schools should form and IRB* for approval of projects that do not need SRC approval. Projects needing SRC approval submit to CASEF SRC for before **NOVEMBER 18th. Please email the director with the student's name, grade, school and project title to notify SRC that the project is awaiting approval.**

❖ **Form 3: Risk Assessment – MUST BE DONE FOR ALL PROJECTS. Answers CANNOT be "n/a." The answer can be "minimal risk"** but there has to be some potential risk identified AND a way to mitigate that risk. *i.e. Paper survey : Risk – uncomfortable with topic, Mitigation – does not complete survey*

❖ **Human Test Subjects:** Form 4 is needed. A classroom form can be submitted (for class participation or survey) **NEW – ONE adult and the researcher can test a device without Form 4**

❖ **Veretebrate Animals –** MUST have SRC approval and keep a Body Condition Score for each organism. Research must stop when adverse effects are noticed.

❖ **MICROBIOLOGY PROJECTS - Students in grades 10-12 may enter Microbiology project IF they use exempt organisms in a BSL-2 Lab. * OR** if the project is done in a Registered Research Institution (RRI) with all the completed forms and letters so that it can be approved and accepted at Category Selection.
        ***NEW ISEF BSL-2** Rule Lab must complete checklist and SRC tour must verify conditions.

❖ PSU Media Release and CASEF Release -   PSU Form must be turned in at Set-up. CASEF – agree on STEMWIZARD – make parents/guardians aware

❖ STEMWIZARD opens for 2023 October 17th. Entries that are currently in may need to be re-submitted.

❖ EITC Letters of Support – Public Schools, I need them in November, not Spring

STEMWIZARD UPDATES

Teachers need to re-register for 2023 – make sure your students use your registered name. Judges have been activated, but then need to confirm.

Some student milestones have slight changes. Please have students read carefully.   ALL have published due dates.
NOTE: The Penn State Release form can be found on website www.casef.org and is a condition of participation. Must be turned in in hard copy at set-up. **NO SIGNED FORM – NO ADMITTANCE!**

Project Summaries without working links to a video will not be eligible for first place or special awards.

Judges will need to re-register. If you are judging, please register as a judge

Sponsors will need to be monitoring student entries, especially under the "Submission for Judges Review" Milestone. These WILL NOT BE EDITED BY CASEF. *We have built TWO EXTRA days into the calendar for teachers to check entries before category selection. Projects WILLL be disqualified for not meeting the registration requirement. There are new screencasts on the website to walk you through each form.*

Electronic Journals – The journal is 15% of the overall score and a very important part of the project. Students are encouraged to keep both a handwritten and electronic journal. Grand champion finalists must submit an original hand-written journal at grand champion judging. Journals (or print outs) MUST be present at set up and also present for judging and interview.

Both category awards and special awards will view the projects via STEMWIZARD. The projects will be made available to the judges the week prior to the fair. Student will not be able to make corrections or modifications after the deadline. **This includes the link to the video presentation.**

Forms may be submitted as 1 PDF in the form 1 location. HOWEVER, THEY MUST BE RIGHT-SIDE UP AND IN THE CORRECT ORDER!! Note on Form 1 that all are in 1 file.

2023 RESTRUCTURING

Registration fees have not changed since the 1980's.

The school registration fee will cover up to 10 projects and 5 additional projects may be added at the rate of $15/project. Please use the ADDITIONAL project inventory (on website) for these projects. These projects should complete STEMWIZARD by the deadlines. They will be accepted based on available space. Payment will be due upon acceptance.

The school registration fee will remain $50 per eligible grade: $100 for a 7-8 Middle School
$200 for a 9-12 High School

DISQULIFICATION BY CATEGORY SELECTION COMMITTEE

*The category review committee volunteers spend many hours reviewing the projects. **Again this year, the committee has provided extra time for sponsors to review the project entries prior to category selection meeting. This review process is to verify the entries are complete, the forms are signed and the required information is included in the entry.***

This process also includes deactivating students who are not participating from STEMWIZARD.

The students should be ranked* on the inventory sheet (10 guaranteed acceptance) and should have complete entries.

Student projects may be disqualified for the following infractions:
Incomplete research plan – including 5 resources, survey copy if required, and disposal plan when appropriate
Incomplete forms 1, 1A, 1B, and 3 (required for ALL project)
*NOTE: Form 3 risk assessment answers are **not n/a**, and "minimal risk" answers need to state SOME way to minimize even minimal risks (participant may withdraw from study)*
Human subject projects have informed consent form – more details in handbook. NO copy of survey will disqualify the project.
All forms are signed and parent contact information is complete – submit one, keep others on file
NOTE: All forms can be uploaded as 1 PDF in the correct order and but should appear under Form 1, it should be noted on Form 1 that all forms are included in the upload.
STEMWIZARD entries are complete and all required information is included with each milestone
IRB or SRC dates and signatures are BEFORE research begins
Microbiology projects are conducted at RRI with all paperwork, have SRC approval if necessary, BSL-2 criteria met, grades 10-12 only exempt organisms
Project titles are less than 85 characters (including spaces) and grammatically correct
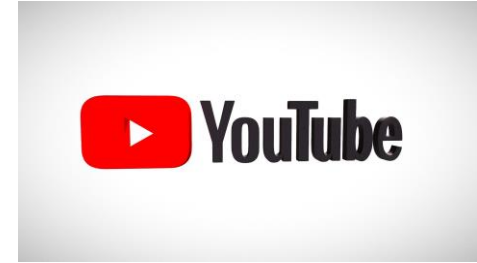*The teacher inventory ranks the projects with number 1 as the strongest and number 10 as the least competitive**

*competitive is determined by: original thought, thorough design, supported by background research, adequate data collection, conclusion based on data analysis, real world application - "How do you know? Who says? Who cares?"

PROJECT NUMBER IS NOTIFICATION OF ACCEPTANCE – IF YOU DO NOT RECEIVE A PROJECT NUMBER ON THE NOTIFICATION THE PROJECT HAS NOT BEEN ACCEPTED – *DO NOT USE ANY NUMBER THAT MIGHT BE IN STEMWIZARD.*

PROJECT VIDEO SUMBISSION
YOUTUBE UNLISTED VIDEO

Each project will be required to submit a video presentation. The video will be an introduction of the project for the judges. Teams must have all team members participate in the video. The first 5 seconds of the video needs to be just the display board. The project needs to be introduced by project number and title. NO STUDENT NAMES OR SCHOOLS (this includes uniforms – business casual attire is recommended.) Student faces are NOT required.

The Display Board should contain the same information that is submitted in the PDF documents in STEMWIZARD. *The display board is the ONLY accepted background for the student video presentation.*

The video can be no longer than FIVE (5) minutes and should tell the story of the project: problem, method, results, analysis, and conclusion. The video must be student/school/sponsor produced. Professionally produced videos will be disqualified. Encourage the students to speak candidly and confidently about their project. A memorized or read speech does not make a good presentation. The judges should be able to follow along with the provided PDF submissions.

*CASEF will determine the basis if the video may replace an interview

RESOURCES

PennState College of Education

CSATS HTTPS://WWW.CSATS.PSU.EDU

PA STATE LIBRARY MAKER SPACE
HTTPS://WWW.STATELIBRARY.PA.GOV/GENERALPUBLIC/STATE-LIBRARY-MAKERSPACE/PAGES/DEFAULT.ASPX

psbr

PA SOCIETY FOR BIOMEDICAL RESEARCH
HTTPS://PSBR.ORG

GETTYSBURG COLLEGE ADVANCING SCIENCE

HTTPS://WWW.GETTYSBURG.EDU/OFFICES/ADVANCING-SCIENCE

ENVIORMENTORS
HTTPS://ENVIRONMENTORS.PSU.EDU

DCNR

HTTPS:// WWW.DCNR.PA.GOV/EDUCATION/PAGES/DEFAULT.ASPX

CHESAPEAKE BAY FOUNDATION
HTTPS://WWW.CBF.ORG/HOW-WE-SAVE-THE-BAY/WITH-SCHOOLS

ACT 48 Credit

- **If you would like Act 48 Credit for the meeting, please send your PPID to director@casef.org no later than noon, Friday October 21st .**