

# Educator Session

2020/09/29  
2020/10/1

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# Who We Are

- Jordan Krell
  - Fair Director
  - Motorsport Engineer @ Bosch Engineering
  - ISEF alum (2x ISEF 4<sup>th</sup> Award)
  
- Kathy Dutton
  - SRC, Outreach, Marketing
  - Science Instructor @ Home School Connections
  - Parent of ISEF alum!



# What is the FRSEF?

- Non-profit, all volunteer organization
- Internationally affiliated with Society for Science and the Public
  - Regeneron ISEF
  - Broadcom MASTERS
- Founded in 1957
  - Hosted first *International* Science & Engineering Fair in 1958



# Who can participate in the FRSEF?

- Mid-Michigan
  - Open to all students in the region
- Divisions
  - Elementary (4 – 5)
  - Junior (6 – 8)
  - Senior (9 – 12)



# About the FRSEF

- **Vision:** To inspire and empower curiosity, investigation and understanding through science and engineering.
- **Mission:** The FRSEF partners with the greater community of Mid-Michigan to foster student potential by:
  - Hosting an annual regional Science & Engineering Fair
  - Offering educational experiences
  - Extending opportunities for rewards, recognition and additional competitions
  - Providing outreach services to students and all who support them



# International Updates

- ISEF 2021 will be virtual
  - Not yet finalized
    - Date
    - Format
    - Anything.....
  
- Broadcom MASTERS
  - Business as usual for preliminary rounds
  - Unknown on Top 30



# 2021 Science Fair – Virtual Fair v2

- Two Judging Rounds
  - Preliminary
    - Projects scored based on submitted materials
    - Equivalent to the previous “Friday night”
  - Final
    - Judge interviews
    - Interviews conducted via zFairs
    - Equivalent to “Saturday morning”
    - Evaluating viability of non-Finalist interviews
  
- Awards Live Stream



# 2021 Science Fair – Junior / Senior Dates

| March 2021                                      |         |           |          |                     |                    |                             |
|---|---------|-----------|----------|---------------------|--------------------|-----------------------------|
| MONDAY  | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY              | SATURDAY           | SUNDAY                      |
| 1   | 2       | 3         | 4        | 5                   | 6                  | 7<br>Project Entry Deadline |
| 8   | 9       | 10        | 11       | 12                  | 13                 | 14                          |
| SRC Reviews<br>Project Display & Safety Reviews |         |           |          | Preliminary Judging |                    |                             |
| 15  | 16      | 17        | 18       | 19                  | 20                 | 21                          |
| Preliminary Judging                             |         |           |          |                     | Judging Interviews | Awards: Senior & Junior     |
| 22  | 23      | 24        | 25       | 26                  | 27                 | 28                          |
| 29  | 30      | 31        |          |                     |                    |                             |





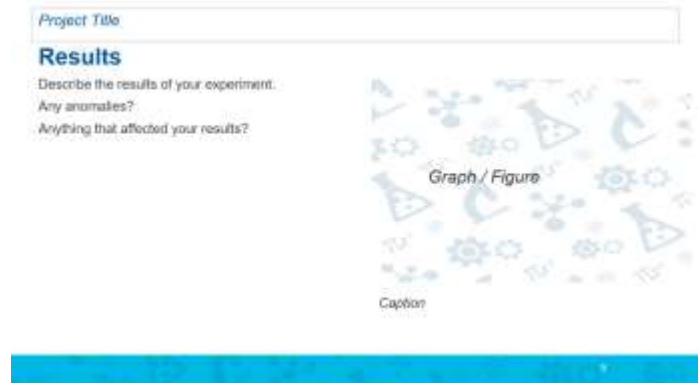
# 2021 Science Fair – Elementary Dates

| April 2021 |         |           |          |        |                                    |                                  |
|------------|---------|-----------|----------|--------|------------------------------------|----------------------------------|
| MONDAY     | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY                           | SUNDAY                           |
|            |         |           | 1        | 2      | 3<br><b>Project Entry Deadline</b> | 4<br>Easter Sunday               |
| 5          | 6       | 7         | 8        | 9      | 10                                 | 11<br><b>Preliminary Judging</b> |
| 12         | 13      | 14        | 15       | 16     | 17<br><b>Judging Interviews</b>    | 18<br><b>Awards: Elem</b>        |
| 19         | 20      | 21        | 22       | 23     | 24                                 | 25                               |
| 26         | 27      | 28        | 29       | 30     |                                    |                                  |



# 2021 Science Fair – Submitted Project Materials

- Research Plan
- Abstract
- Project Summary
  - Optional template provided
- Display Slides
  - In place of a display board
  - Optional templates provided
- Project Images (optional)
- Special Awards Form



The screenshot shows a digital form for a science fair project. At the top, there is a text input field labeled "Project Title". Below it is a section titled "Results" in blue. Under "Results", there are two lines of text: "Describe the results of your experiment." and "Any anomalies? Anything that affected your results?". To the right of the text is a large, light blue graphic area containing various science-related icons like flasks, gears, and a microscope. Below this graphic area, there are two labels: "Graph / Figure" and "Caption". At the bottom of the form, there is a solid blue horizontal bar.

*Templates and further information:*

- <https://www.flintsciencefair.org/important-stuff/virtual-fair-information/>

# 2021 Science Fair – Registration

- New registration and fair management system – zFairs
  - Students register themselves and projects
  - Teachers can register and check on student status
  - SRC form upload, approval and communication
  - Upload of all project materials for judging
  - Host online judging interviews
- How Is It?
  - <https://mi-frsef.zfairs.com/?f=1184ddb0-4fee-4b33-af93-d743e1e590fb>
  - Feedback requested
- Hint
  - *Register Teacher First!*



# 2021 Science Fair – Virtual Process v2

- Judge Feedback
  - Judge feedback can be emailed to students (feedback?)
- Interview Safety
  - Judges required to undergo background checks
  - Minimum of 2 judges in each interview



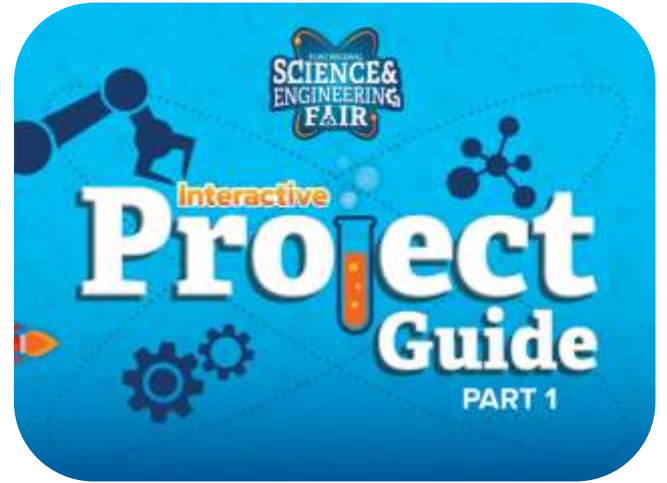
# Office Hours

- No appointment necessary, just call in via Zoom
  - 1 hour every other week
  - Schedule: <https://www.flintsciencefair.org/important-stuff/office-hours-workshops/>
- Opportunity for educators, parents and students to ask questions.
  - Registration
  - SRC Forms
  - Project Problems
  - Report or Display



# Interactive Project Guide

- Interactive Project Guide Part 1
  - Step by step guide for starting a project
  - Enables students to answer their own questions
  - <https://www.flintsciencefair.org/programguide/>
- Interactive Project Guide Part 2
  - Step by step guide for completing a project
  - Guidelines for report and project display



# Virtual Support

- Virtual visits
  - Kickoff
  - Workshopping
  - Review
  - Etc...
  
- zFair software to schools for hosting local virtual fairs



# Educator Stipends

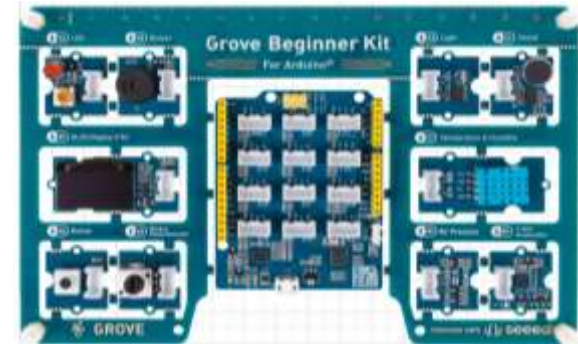
- Up to \$500 stipends
  - Goal: Provide resources to enable excellence in research
  - Eligibility: must be in the FRSEF territory
- Limited number of grants are available.
- Applications reviewed at the beginning of each month.
- [Online Application](#)





# Crash Course: Measurements, Sensors and Data Logging

- 6 Week Online Series for Students
  - Students receive package with Arduino, sensors and required equipment.
  - Learn about sensor and actuator types, instrumentation and data logging.
    - How to measure your experiment and design.
    - Sensors and different sensor types.
    - How does a data logger work?
    - How to use an Arduino as a data logger.
- Registration: [Open now through October 6](#)
- Working with MSU-St. Andrews
- Content will be posted on the FRSEF website.



# Crash Course: Measurements, Sensors and Data Logging



# Crash Course: Data Analysis

- 3 Week Online Series for Students
  - Weekly session to learn about data analysis and presentation.
  - Weekly guest to relate to real-world applications.
- Dates:
  - Registration: December - January
  - Course: Feb. 4, 11, 18



# Student Project Grants

- Grants for students in the Junior and Senior Categories
  - Junior: Up to \$200
  - Senior: Up to \$400
  - Goal: Provide resources to students to enable excellence in research
  - Eligibility: must be in the FRSEF territory
- Limited number of grants are available.
- Applications reviewed at the beginning of each month.
- [Online Application](#)





# Thank You!

Reach out anytime:

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Kathy Dutton

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