Please sign in on the Google Sheets on the computer as you come in. Indicate whether Friday after school meetings work for you (on most days) & if you are interested in helping create educational STEM outreach programs in our district.

Club Requirements

- 1. Attend <u>one</u> meeting or activity per month.
 - Speakers, documented (signature needed) job shadowing hours, SISER volunteering, workshops
- 2. Complete <u>one</u> research project or career inquiry per semester.
 - Must submit 3 paragraph report Secretary by Friday, December 6th
 - Career Inquiry = must include 1 in person or phone call interview with professional in field (not related to you)

Dates to Remember / Upcoming Events

- Sign up sheets will be posted on Google Classroom. Keep an eye on the announcements and <u>mhssiser.weebly.com</u> for code (Tech Director).
- Operate a Scanning Electron Microscope Wright Patt Laboratory (SEMEDS)
 - SEMEDS, March 26th from 4:30-6:30 pm
- Dayton Engineers Club
 - November 7th ~Ms. Pennington
- 1st Semester Research due Friday December 6th
- Believe in Ohio Updates? ~Ms. Pennington

Officers

How were the officers decided?

- 1. VP Caroline Gillespie
- 2. Secretary Christy Shin
- 3. Treasurer Kritik Tella
- 4. Tech Director Jocelyn Bailey

Each officer is welcome to choose a team to help organize projects.

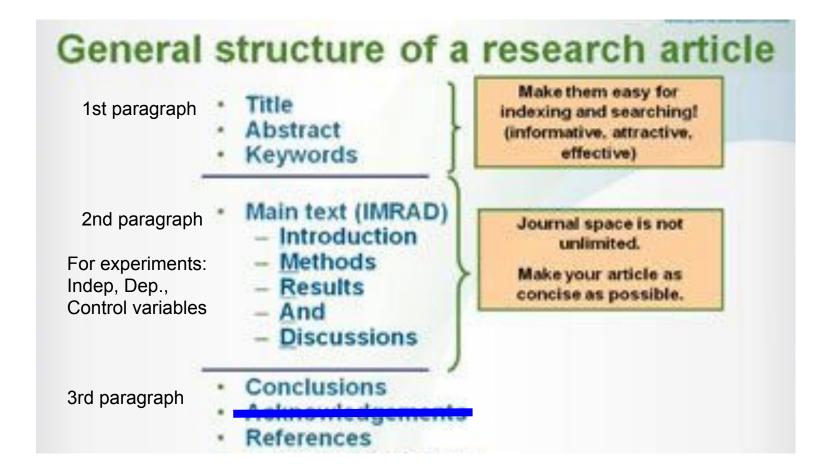
We will have many other leadership opportunities such as being Team Leads (simulating work environments) for major projects like Educational Outreach.

Hope Mgrew: Project Educational Outreach Team Lead

Michael Raj: Project Code A Way Team Lead

How to do a SISER Research Project

- Fill out a column on Research Project Google Sheets (will be on Google Classroom) -> necessary materials, purpose, when are you going to do this
- Keep a lab sheet/notebook while conducting actual research/lab = rough draft of research article/paper
- APA format (double spaced, all caps left aligned running header, right aligned page number, section headings, "References" page)
 - Abstract = <u>general</u> summary of lab/research, goal of lab, context/background of experiments
 - Introduction = more specific, leads into methods or specific materials being used
- \geq 3 paragraphs



How to do a SISER Career Inquiry

- Choose a specific profession/career/job. Research using 2 credible (non-wikipedia) sources.
 - What do they do? What fields of STEM do they use & how? Research opportunities?
 - How many projected jobs in future?
 - Credentials? Needed skills? Recommended, notable schools?
 - What high school classes should you take?
 - Median salaries? Other statistics? ...etc.
- must include 1 in person or phone call interview with professional in field (not related to you)
- \geq 3 paragraphs
- APA format w/ references page, running head, parenthetical citations, etc.

Tutoring

Tutoring Strategies:

- Explain it using simple terms, engage student with questions while tutoring
- **Generalization**: give student multiple examples of topic (walk though examples, then have them try it with less help)
- **Discrimination**: start with one stimulus/problem/question and then expand on it or make connections -> develop understanding
- *Extinction*: student does something for attention, ignore it (unless dangerous)
- Specific Feedback: "Great job on __action___", builds confidence & pos. env.

Project Outreach

- TL: Hope Mgrew <u>hope.mgrew@stu.miamisburg.k12.oh.us</u>
- Creating STEM educational programs, events, and activities across the Miamisburg City School district

BRAINSTORM SESSION (Divide into 2 groups, high school centric & K-8)

- Specific types of activities (Tutoring programs, letters to scientists/older students, Quiz bowls for extra credit in 'x type' class, science fairs, invention conventions, science nights?)
- What schools don't have science fairs?
- STEM teachers at middle school that can help

VOTE ON TOP 2 IDEAS

"Homework", What You Need To Do

- Start choosing what research project/inquiry you want to do (start abstract if possible)
- Look out for Google Classroom code on the announcements/website for opportunity/event sign ups
- Look at <u>Skype with a Scientist Catalog</u>; see which ones you are interested in

Next Meeting... (Nov. 1st)

- Briefly: how to choose/design an experiment or research topic
- Give specific dates about when first tutoring sessions are starting
- First two speaker dates
- Some members receive job shadowing/speaker/professional mentor contacts; internship website info (& more....)

SISER Meeting 2

November 1, 2019

Keeping in Touch with SISER

- New Google classroom is up and the code is **phenw47**.
- Follow the new twitter account @mhssiser for updates.

Field Trip Reminder

• If you are still interested in attending the field trip, please fill out the emergency medical authorization form and turn it in to an officer.

Research Project

- What is a research project? What does it mean to conduct original research?
- Networks of experienced individuals can offer great mentorship and provide assistance in accessing necessary resources for proper experimentation.
- First semester due date is December 6, 2019.

Brainstorm

- What topics interest you the most and inspire you to learn more?
- List ideas on a piece of paper or on google sheets.

STEM Night Outreach

• Identify school/staff members who can work out the logistics for hosting a STEM night and contact them.

STEM Night Activities

• Brainstorm activities for STEM nights and ways to publicize and promote the event.