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 one meeting or activity per month.
    - Speakers, documented (signature needed) job shadowing hours, SISER volunteering, workshops
2. Complete one 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 mhssiser.weebly.com 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 = general summary of lab/research, goal of lab, context/background of experiments
    - Introduction = more specific, leads into methods or specific materials being used
- ≥ 3 paragraphs

General structure of a research article

1st paragraph

- Title
- Abstract
- Keywords

Make them easy for indexing and searching! (informative, attractive, effective)

2nd paragraph

- Main text (IMRAD)
  - Introduction
  - Methods
  - Results
  - And
  - Discussions

For experiments:
Indep, Dep.,
Control variables

Journal space is not unlimited.

Make your article as concise as possible.

3rd paragraph

- Conclusions
- [illegible]
- References

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)
- ≥ 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 hope.mgrew@stu.miamisburg.k12.oh.us
- 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 Skype with a Scientist Catalog; 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.