# College of Science Outreach updates

## Physics Outreach

Middle School PD

Writing, testing and video recording experiments for the upcoming remote middle school teacher workshop.

e-Learning resources

Contributed resources to the College of Science Outreach website to provide materials for remote instruction.

Science Express

Recorded videos, explaining the use of Science Express apparatus.

RETs

Working with McCutcheon RET teacher Sam McClellan, providing resources for improving the high school laboratory program.

Faculty

Collaborating with Professor Andrew Mugler in creating a remote learning laboratory for middle school students.

Working with Professor Steve Durbin in broader impact for an upcoming grant submission.

## Earth, Atmospheric, and Planetary Sciences Outreach

* Goal 1: Support for K-12 science and mathematics educators
  + Teacher Professional development
    - Working with other coordinators to design a middle school teacher professional development workshops that we will hold virtually this summer.
    - Continued adding resources to eLearning page on the College of Science K-12 Outreach website: <https://bit.ly/PUelearning>
    - Working with Community Schools of Frankfort administration to outline a professional development for elementary teachers in order to support science instruction and integration.
  + Teacher Resources:
    - **Superheroes of Science podcast!** Podcast for students and educators interviewing scientists and science education specialists.
      * Released new content podcasts
      * Started and released  Inspiring Ideas for the Classroom
* Goal 2: Create and facilitate programs that develop scientifically literate K-12 students
  + Collaborating with Imagination Station Children's Museum to develop a 360 virtual tour of the museum displays.
  + Working with EAPS grad students on descriptions for Virtual Rock Display and on fall opportunities.
* Goal 3: Create opportunities for broader impact
  + Collaborating with faculty on Broader Impacts for grants.
  + Podcasts and YouTube videos created and released for ***Superheroes of Science***
  + YouTube videos released for SOS: **Inspiring Ideas for the Classroom**.
    - There were 322 total unique downloads of SoS podcasts this month.
    - There were 745 total views counted for the Superheroes of Science YouTube channel this month (<https://bit.ly/SOS_UTube>).
    - Twitter (@PurdueSOS) logged a total of 5,692 tweet impressions this month.
  + Getting information out
    - **Facebook** for EAPS Outreach: <https://www.facebook.com/EAPS.out>
    - **Twitter** @PurdueSOS: <https://twitter.com/PurdueSOS>
    - EAPS K-12 Outreach Pinterest
    - EAPS **departmental outreach web page**: <http://www.eaps.purdue.edu/outreach/index.html>
    - Youtube channel for Superheroes of Science: <https://www.youtube.com/channel/UCIJnmp1MwUDtm_WMBSarEcw>

Heading Subcommittee for the GLOBE Program U.S. Partner Forum on trainer and master trainer mentoring.

## Chemistry Outreach

* Professional Development and Support for K-12 Educators
  + Developing and recording lessons for July 2020 Middle School Teacher Workshops.
  + Met with administrator and teachers from Blue Ridge Primary Elementary School in Frankfort to discuss Fall 2020 Inquiry Learning professional development with College of Science K-12 Outreach.
  + Continued adding resources to eLearning page on the College of Science K-12 Outreach website: <https://bit.ly/PUelearning>
    - The eLearning website was visited 87 times in the month of June.
    - Continued adding to list of online teaching resources for chemistry, linked to the eLearning resource page: <https://bit.ly/scienceremote>
  + Focused efforts to continue developing the Facebook page: Purdue University K-12 Chemistry Outreach (@PurdueChem).
    - Added 13 new followers this month.
  + Posts from this page reached a total of 5,764 people this month.
* Programs to Develop Scientifically Literate K-12 Students
  + Worked with Steven Smith (K-12 EAPS Outreach) to help take pictures for a 360 Virtual Lab Tour of Imagination Station in Lafayette, IN: <https://poly.google.com/view/8a6ibZ61fpa>.
* Opportunities for Broader Impact
  + June 2020 podcasts and YouTube videos released for *Superheroes of Science* include episodes recorded with Professors Briony Horgan, Gouri Prabhakar, Herman Sintim, Buster Dunsmore, and NASA scientist Patrick Taylor.
  + June 2020 YouTube videos released for *SOS: Inspiring Ideas for the Classroom* include episodes recorded with teachers: Kierston McKinley, Ryan Bean, Kerry Sensenbrenner, and Brandy Hicks.
  + Superheroes of Science Analytics:
    - The Superheroes of Science YouTube channel became eligible for a custom URL after surpassing 100 subscribers this month (we currently have 117 subscribers): <https://www.youtube.com/c/SuperheroesofScience>
    - There were 322 total unique downloads of the Superheroes of Science podcast this month.
    - There were 745 total views counted for the Superheroes of Science YouTube channel this month.

## Twitter (@PurdueSOS) logged a total of 5,692 tweet impressions this month.

## Biology Outreach

1. Science express: Recorded Instructional video and wrote quiz for using the Hach Water Kits instruments on Science express.
2. Middle School Science Workshop. Summer 2020: Prepared materials and instructional videos for A) Yarn Mitosis and B.) Ecosystem in a Bottle; Two activities to be presented at the 2020 Summer MSSP ( Middle School Science professional Development workshop) Taking place at the end of July 2020.
3. Prepared online lesson on Theory and Practice of Electrophoresis for presentation to Students in the 2020 SBE (Summer Biology Experience) program. Because of circumstances due to the COVID19 crisis, SBE was cancelled for this summer.
4. Biology Minority STEM Initiative: Biology Outreach invited to initial discussions on the Departmental approach to addressing Minorities in STEM initiative. This initiative is led by the EEB section in the Department.
5. Attended the Minority Chemistry Graduate Student’s WebEx Seminar and Discussion on Minorities in STEM Careers: Problems and Solutions.
6. Continue Collaboration work with HS. Biology Teacher on developing materials for HS Biology course in Anatomy& physiology.

## Science Express

* Made video labs for the Science Express YouTube page
* Changed SE website to be more Marking and Media compliant
* Had two Science Express board meetings where we planned how to perform Science Express recertification online.
* Met with Jennifer Jefferies to get Science Express into Marketing and Media compliance
* Worked with other Science Express board members to make recertification videos and accompanying quizzes
* Arranged SE equipment for the van driver to clean and refurbish and supplied him with disinfectant.