## Physics Outreach

SMAP

Kepler’s Laws was presented by Dan Milisavljevic, who dressed in period costume as Kepler himself.

Service Learning

Service learning student Annabel Biggs created three new activities for Sidewalk Science.

Scholarship of Engagement

Coordinator Sederberg published an article in The Physics Teacher with Professor Matthew Wiesner, *The Search for Dark Matter*, which presents an activity of the same name that comes from the SMAP program.

Sidewalk Science

Outreach and student volunteer (Brian Coleman) presented “Static Charges” to students at Dayton Elementary School, Dayton, IN.

Wea Ridge STEM Day

P and A Outreach presented Straw Launchers and Projectile Motion to 6th grade classes an Wea Ridge, in cooperation with Zach Grigsby.

Office of Diversity Pre-Destination Purdue

Outreach and student volunteers presented a hands-on session to prospective Purdue College of Science freshmen.

## Earth, Atmospheric, and Planetary Sciences Outreach

* + *Goal 1:* ***Support for K-12 science and mathematics educators***
    - Teacher Professional development
      * HASTI Conference
        + Presentation: Using Podcasts in The Classroom to Help Your Students Succeed
        + Weather in the Elementary Classroom: Spark Interest in Math and Literacy Connections
        + Story Maps: Tech Literacy Across Disciplines
        + Middle School Demo Show: Using Science to Excite and Engage Students
        + Helped staff the  College of Science Booth
      * Developed and modeled lesson on Matter for 4th grade teacher at West Lafayette Intermediate School.
      * Co-facilitated teacher professional development, The ‘T’ in STEM on campus.
      * Working with other coordinators to design a Middle School teacher professional development that we will hold this summer.
    - Getting information out
      * Web **calendar of events** for EAPS K-12 outreach
        + <http://www.eaps.purdue.edu/outreach/Outreach_News.html>
      * We have a **Facebook** for EAPS Outreach
        + [https://www.facebook.com/EAPS.out](https://www.facebook.com/EAPS.out/)
      * Purdue **Science K-12 Outreach newsletter** goes out to 500+ subscribers.
        + <https://us4.campaign-archive.com/home/?u=1bbd2c49c28247b75608f1d3d&id=87beefd504>
    - Teacher Resources:
      * Loaned a number of equipment items to teachers including McCutcheon High School, West LAfayette High School, and EAPS Faculty
      * Created online VR tour of the EAPS outdoor Rock display [**https://poly.google.com/view/3RKVpGUU-ay**](https://poly.google.com/view/3RKVpGUU-ay)
      * **Superheroes of Science podcast!** Podcast for students and educators interviewing scientists and science education specialists.
      * We have a **EAPS K-12 Outreach Pinterest** page to help teachers find resources in our content area.
      * We have many resources posted on our **departmental outreach web page**: <http://www.eaps.purdue.edu/outreach/index.html>
      * We have a **Youtube** channel for Superheroes of Science: <https://www.youtube.com/channel/UCIJnmp1MwUDtm_WMBSarEcw>
      * We have a **Twitter** account for Superheroes of Science: <https://twitter.com/PurdueSOS> @PurdueSOS
  + *Goal 2:****Create and facilitate programs that develop scientifically literate K-12 students***
    - AP Friday on Kinetics
    - Taught lesson on Matter for 4th grade teacher at West Lafayette Intermediate School
    - Created a first draft of an online VR tour of the EAPS outdoor Rock display [**https://poly.google.com/view/3RKVpGUU-ay**](https://poly.google.com/view/3RKVpGUU-ay)
  + *Goal 3:****Create opportunities for broader impact***
    - Released for the **Superheroes of Science Podcasts** this month:.
      * Released podcasts from Betsy Parkinson, Michael Baldwin, Andy Najafiarab, and Grey Nearing.
    - Submitted Motorola grant proposal.
    - Heading Subcommittee for the GLOBE Program U.S. Partner Forum on trainer and master trainer mentoring.
    - Met with West Lafayette libraries to discuss collaborations
    - Discussed collaborations with the Director of Strategy, Education Program at the The Right Question Institute.
    - Working with the Executive Director of the Geography Educators’ Network of Indiana, Inc to host a teacher workshop on campus.
* Personal professional development:
  + Started Google Certified Educator Level 1 training

## Chemistry Outreach

* **Professional Development and Support for K-12 Educators**
  + Co-facilitated teacher professional development at Purdue: The ‘T’ in STEM
  + 49th Annual HASTI Conference (Indianapolis, IN)
    - Presentations:
      * Using Podcasts in The Classroom to Help Your Students Succeed
      * Middle School Demo Show
      * Story Maps & StoryMaps: Tech Literacy Across Disciplines
      * Weather in the Elementary Classroom
    - College of Science Booth
  + Submitted Motorola Solution Foundation grant proposal.
  + Continuing to plan for upcoming teacher professional development this spring/summer.
  + Mailed College of Science swag packages to science teachers.
* **Programs to Develop Scientifically Literate K-12 Students**
  + Students from Portage High School came to Purdue to participate in an AP Friday lab session on February 07 over Kinetics - Rate Laws.
  + Co-taught lesson on the topic of “States of Matter” to 4th grade students at West Lafayette Intermediate School.
  + Loaned Air Quality Sensor to a student at West Lafayette High School to assist with his research project.
* **Opportunities for Broader Impact**
  + January 2020 podcasts and YouTube videos released for *Superheroes of Science* include episodes recorded with Professors Betsy Parkinson, Michael Baldwin, Grey Nearing (University of Alabama), and College of Science Alumnus Andrew Najafiarab.
  + Joined subcommittee for the GLOBE Program U.S. Partner Forum on trainer and master trainer mentoring.
  + Met with West Lafayette libraries to discuss future collaborations.
  + Discussed collaborations with the Director of Strategy, Education Program at The Right Question Institute.
  + Started Google Certified Educator Level 1 training.

## Computer Science Outreach

## Biology Outreach

 1.) HASTI Annual Meeting  Feb. 9 –11. Attended the Annual meeting of HASTI. (Hoosier Assoc. of Science Teachers Inc.), and the Annual meeting of IABT ( Indiana Assoc. of Biology Teachers).Presented a Biology ‘Biology Quick’ session on Genetics and participated in IABT’s Executive Board meeting as the University representative on the Board.

2.) Community Outreach to Briarwood Lafayette. Worked with 12 MS students from the Briarwood Community tutoring Science and helping on their science Fair projects. Three parents and two Purdue students assisted and provided help in this effort.

3.) Klondike MS  Science Fair: Participated as a judge  at the Klondike Middle School Science Fair. Judged 28 Science Fair projects, interacting with over 35 students and 5 teachers.

4.) Attended Purdue Engagement and service Learning summit.

5.) NMSI AP Biology : Presented a NMSI ( National Math Science Initiative) sponsored AP Biology Student Study Session to 80 students and 5 teachers at Mandan High school in Mandan North Dakota. The AP Biology topic covered was on Diversity and evolution in Organisms.

# Science Express

Science Express-The Chemistry, Biological Sciences, and Physics Departments of the Purdue College of Science deliver research-grade instruments to high schools in 17 Indiana counties. Through the month of February 86 teacher/classroom visits were made and there were 3715 student/equipment interactions.