

## JOSEPHINE G. BLEAKLEY (SPRING 2017)

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### EDUCATION

Wildwood High School (Expected graduation 2019)  
Brown University (Brain and Behavior course 2016)

### APPOINTMENTS

- WISRD Historian (2015-2016)
- WISRD *The Inquirer* Assistant Editor (2015-2016)
- WISRD *The Inquirer* Senior Editor (2016—)
- WISRD Director (2017—)

### HONORS & AWARDS

Future Cities Regional Competition (2015)  
National Youth Leadership Nomination (2017)

### SYNERGISTIC ACTIVITIES

**Overview:** Ms. Bleakley joined WISRD her freshman year at Wildwood, in Fall of 2015. Upon joining the Institute, she became involved with GAVRT, as detailed below. She joined the board as the Historian, as well as becoming the Assistant Editor for WISRD publications. At the end of the year, she helped WISRD begin their involvement with WISRD. The following year, Ms. Bleakley became the Senior Editor for publications, began the Survey project, worked on the Shell-less Incubation project, and was elected Director of the Institute. Throughout her time in WISRD, she has presented at numerous workshops.

Each of the following paragraphs will address (1) of the standards on the WISRD rubric, in the order that they are presented, beginning with 'Problem Solver'.

Ms. Bleakley has observed faults in the WISRD institute model (primarily through inclusivity and attitude) and responded through the Gummy Bear project, aimed at reconstructing views of WISRD, and the WISRD Survey, in which all institute member experiences have been collected and are being used to improve WISRD. [Students identify and articulate at least one problem; Students add knowledge and or product to the community]

Through her work as Senior Editor of publications, Ms. Bleakley has recruited, trained, and lead a staff of editors and writers. She has worked with students, teachers, and scientists outside the Wildwood community to improve WISRD publications. She has collaborated with various graphic designers in the Wildwood Community, ultimately resulting in 3 successful publications in her first year of holding her position. [Students develop and assign tasks to themselves and others]

Ms. Bleakley has found collaborating to be the focal point of her experience in WISRD, through the magazine and all projects she has worked on. The specifics of these collaborations can be seen in other discussions of her work with the publications. [Students share awareness of other's work and identify points of collaboration]

Ms. Bleakley created meaning in the community through her involvement with WISRD publications. Each issue has strived to educate and enlighten the community, as well as provide an outlet for members to learn the valuable skills of scientific writing, editing, graphic design, and implementing feedback. In addition, Ms. Bleakley has presented at numerous poster presentations and workshops. [Students create meaning for themselves and all students via communication through all media; Student leads or participates in workshops, poster presentations, etc.]

In creating a survey that aims at improving the experience of WISRD, Ms. Bleakley has built an accepting environment and community in WISRD. [Students build something that creates value for the community]

Ms. Bleakley has taken risks in WISRD by striving for leadership roles and involving herself with projects and topics she has previously been unfamiliar with, as well as not avoiding or flinching away from failure when it has presented itself, instead seeing it as a learning opportunity. [Students take risks]

In the creation of the WISRD survey, Ms. Bleakley utilized Survey Monkey to view results. She has since created numerous charts and graphs to best illustrate the trends the data has shown. These charts have been used in the creation of a report on the results of the survey. [Students utilize charts and graphs to show relationships]

Throughout her experience in WISRD, Ms. Bleakley has grown significantly in her scientific writing skills. She has learned to write reports on projects, meaningfully (if not always regularly) update a journal, write accessible scientific articles, and edit other's writing. [Student may participate in WISRD magazine]

Ms. Bleakley has used the WISRD website and publications to add value to the community. [Students use electronic tools correctly]

Ms. Bleakley participated in the crafting of grant proposals for RECON. [Students participate in grant writing]

Ms. Bleakley has served as a member of the board, Historian, Director, Assistant Editor, and Senior Editor. [Students participate as a member of the board]

Ms. Bleakley developed a new way of spreading the WISRD message through the creation of the Gummy Bear project, as detailed below. [Student participates in creating the WISRD message through logo and swag]

## Projects

- **Goldstone Apple Valley Radio Telescope (GAVRT):** Jet Propulsion Lab Funded radio telescope controlled by members of WISRD pursuing research in variable black holes.
- **Research and Educators Collaborative Occultation Network (RECON):** Network of telescopes on the Western U.S coast studying Trans-Neptunian Objects. RECON is funded by the NSF and Cal Poly San Luis Obispo.
- **Shell-less Incubation:** Re-creation of Japanese project wherein students incubated a chicken without a shell. This re-creation was intended to improve upon poor directions and recordings of results from the original study. It was halted mid-way through due to concerns over the ethics of the experiment.
- **Multicultural Workshop:** Workshops in 2016 and 2017 on the topic of gender parity in STEM fields, held at the Wildwood Multicultural Symposium.
- **WISRD Historian:** Maintenance of records and WISRD history of publications in the 2015-2016 school year.
- **Assistant Editor for WISRD magazine:** Writing and editing of articles for *The Inquirer*, under the leadership of Caleb Zakarin.
- **Gummy Bear Project:** 3D printing, silicon molding, and creating of personalized WISRD candies in order to reframe the view of WISRD as 'just for the smart kids'.
- **EMOTIV Research:** EMOTIV is a mobile EEG system. In the past, WISRD has used it to monitor brain activity in response to different kinds of literature. In the upcoming year, Ms. Bleakley plans to use EMOTIV in a not yet specified study.
- **WISRD Survey:** Survey, analysis, and report intended to get an accurate finding of WISRD member experiences of the Institute culture and assistance available.

## Current Projects

- **Women in WISRD (WoW):** After observing the experiences of the female members of WISRD through the Survey Project, Ms. Bleakley and Dr. Alicia Breakey worked together to form a group for the women of WISRD to share experiences, ask for advice, problem-solve the issues of gender inequity in WISRD and greater STEM fields, and improve the overall conditions of WISRD for all members.
- **Senior Editor for WISRD Publications:** In both the 2016-2017 and 2017-2018 school years, Ms. Bleakley has been responsible for personally editing, managing a team of editors, graphic design involvement, and the spread

of the WISRD magazine and journal. In 2016-2017, two issues of the magazine, *The Inquirer*, were published, and one issue of the WISRD Journal.

Ms. Bleakley currently serves as:

- **Director of Board for WISRD:** Elected in Spring of 2017, Ms. Bleakley will serve as Director of the institute for a minimum of one year. As director, Ms. Bleakley plans to focus on reconstructing the culture and environment of WISRD into a more accepting, tolerant one. In addition, she plans to improve the publications system in order to achieve the best work from members and provide a positive experience. In collaboration with Mr. Wise, Ms. Bleakley is focused on integrating scientific writing more seamlessly into the institute model.
- **Senior Editor for WISRD magazine, *The Inquirer*, and WISRD Journal:** *The Inquirer* is a bi-annually published magazine written, edited, designed, and published by WISRD members, featuring articles on recent findings and research in STEM fields. The journal publishes original research done by WISRD members.

#### Posters:

- **GAVRT Poster:** Fall 2015 poster presentation night
- **Publications Poster:** Spring 2016 poster presentation night
- **RECON Poster:** Spring 2016 poster presentation night
- **Publications Poster:** Fall 2016 poster presentation night
- **Shell-less Incubation Poster:** Fall 2016 poster presentation night
- **The Importance of Scientific Writing Through the Lens of WISRD Publications:** Fall 2017 poster presentation night

#### Articles:

- **Can Scientists Frighten the Fearless?:** Article on Urbach-Weithe disease, published in the fall 2015 issue of *The Inquirer*
- **Astronomy in WISRD:** Article on WISRD's different projects in the field of astronomy, published in the spring 2016 issue of *The Inquirer*
- **Debunking the Psychopath:** Article on popular myths and misconception on psychopathy, published in the fall 2016 issue of *The Inquirer*
- **The Research Replication Revolution:** Article on recent developments in writing in social sciences fields, set to be published in the Winter 2018 issue of *The Inquirer*

#### Presentations:

- **California State STEM Symposium (2016)**
- **InnovatEd LA (2016+2017)**
- **Multicultural Symposium (2016+2017)**

#### References

Dr. Alicia Breakey: ([abreakey@wildwood.org](mailto:abreakey@wildwood.org))

Scott Johnson: ([sjohnson@wildwood.org](mailto:sjohnson@wildwood.org))

Joseph Wise: ([jwise@wildwood.org](mailto:jwise@wildwood.org))