THANK YOU TO OUR 2018 SPONSORS & VOLUNTEERS!

GEMS is organized by a small group of local women with a passion for STEM. We are a 100% volunteer organization funded by grants, sponsorships, and donations. All funds are used for operating costs and to waive registration fees.

SPONSORED BY:

GEMS Planning Committee  I  WWW.GEMSLAB.ORG

Angelia Bendolph, Ph.D., American Association of University Women  I  Sinead Ni Chadhain, Ph.D., University of South Alabama  I  Leevones Fisher, American Association of University Women  I  Angela Jordan, University of South Alabama  I  Stephanie Legrone, Mobile County Public School System  I  Angela Nocera, PE, F.SAME, Society of American Military Engineers  I  Elena Pavalescu, Ph.D., University of South Alabama  I  Rhonda Scroggins, Homeschool Community  I  Shannon Shelley-Tremblay, JD, University of South Alabama  I  Alexandra Stenson, Ph.D., University of South Alabama
ABOUT THE EVENT

Girls Exploring Math & Science (GEMS) is an annual program that provides a fun and exciting way for middle-school girls and their parents to explore careers in science, technology, engineering, and math (STEM). GEMS aims to increase our local STEM workforce in three ways:

- Spark interest in STEM through fun, hands-on workshops led by local STEM educators and professionals.
- Generate awareness of STEM careers available in our local community through guest speakers and company-branded giveaways.
- Empower parents to inspire and support their child’s journey to a STEM career through sessions about education and career planning.

GEMS 2018 was held on November 10 at the USA campus. Participants included 189 students and 44 parents from 50 schools in Alabama and Mississippi.

SCHOOL SYSTEMS REPRESENTED

<table>
<thead>
<tr>
<th>School System</th>
<th>% of GEMS Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile County</td>
<td>50%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>16%</td>
</tr>
<tr>
<td>Private School</td>
<td>15%</td>
</tr>
<tr>
<td>Baldwin County</td>
<td>13%</td>
</tr>
<tr>
<td>Homeschool</td>
<td>5%</td>
</tr>
<tr>
<td>Pascagoula-Gautier County</td>
<td>1%</td>
</tr>
</tbody>
</table>

ROCKSTARS OF STEM!

GEMS 2018 kicked off with the **Rockstars of STEM**, dynamic women who talked about their STEM careers:

- Julie Walton, Mechanical Engineer with the U.S. Army Corps of Engineers
- Sharon Reeves, Fire Fighter with St. Elmo-Irvington Fire Department
- Dr. Alissa Deming, D.V.M., Conservation Veterinarian with Dauphin Island Sea Lab
- Dr. Barbara Mitchell, M.D., Internist with Infirmary Health
- Dr. Heidi Lyn, Ph.D., Animal Psychologist with the University of South Alabama
STUDENT WORKSHOPS
Each student participated in three workshops of their choosing. Thanks to our workshop presenters and countless volunteers, GEMS 2018 provided 22 workshops in multiple STEM fields!

Archaeology & Anthropology
- Layer Cake Archaeology
- Skeleton Stories

Biology
- Anatomy Outreach
- Diversity of Sediment Dwellers
- DNA is Bio-logical!
- DNA, It’s a Jewel!
- Seeing is Believing
- What Does DNA Look Like?

Chemistry
- BASF’s Slime Creators & Beauty Product Makers
- Chem’s a GEM!
- Colors of the Rainbow
- Cup Cake Chemistry
- Glow-Up! Blow-Up!
- The Science of Perfumes

Earth Science
- Build-A-Reef
- In the Eye of the Hurricane

Engineering & Technology
- 21st Century Treasure Hunting
- Christmas Lights and Beyond

Math
- The Fastest Boat
- The Math of Paths

Psychology
- Liar Liar!
- The Science of Leadership & Communication

PARENT SESSIONS
While the girls were getting their hands dirty, their parents and guardians participated in the following workshops, aimed to give them ideas and resources to inspire and support their child’s interest in STEM through K-12 and beyond.

- What is STEM and Why Is it Important?
- Mobile County Public School System Career Academies and Course Selections
- JROTC STEM Academy & ROTC Opportunities
- Robotics Club Demonstration
- Flightworks Alabama
- College Planning and Financial Aid
- Careers at Austal USA
- General Career Planning
- Walking Tour of USA College of Engineering’s Shelby Hall

PARENTS SAID:

My favorite part of GEMS was...

...Looking at the excitement on the girls faces!

...The opening speakers were great!

...Learning about some of the careers available locally!

...Seeing the girls really perk up at listening to the ladies speak about different jobs!

...Educating and inspiring girls in the Sciences!

...All of it!
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PRESENTERS & WORKSHOP LEADERS

Shahrzad Badri, USA
LTC Robert F. Barrow, Mobile County JROTC
Sarah Bodenstein, Auburn University
Glen Borchert, USA
Kristi Clayton, USA
William Clemo, Dauphin Island Sea Lab
Candice Cravins, USA
Alisa Deming, Dauphin Island Sea Lab
Angela Dixon, St. Luke’s Robotics
Robin Fenton, Flightworks Alabama
Lesley Gregoricka, USA
Jianing Han, USA
Tara Haynes, Alabama Dept. of Forensic Sciences
Cara Hemmer, BASF Jennifer Holifield, Austal
Kelley Johnson, St. Luke’s Robotics
Erica Jones, AAUW
Regina Kirkland, USA
Mary Kroetz, USA
John Lanicci, USA
Stephanie LeGrone, Mobile County Public School System
Dr. Heidi Lynn, PhD, USA
Dr. Barbara Mitchell, MD, Infirmary Health
Sandy Mayo, Springhill College
Sinead Ni Chadhain, USA
Angela Nocera, Michael Baker International
Sharon Reeves, St. Elmo-Irvington Fire Dept.
Allyn Schoeffler, Springhill College
John Shelley-Tremblay, USA
Carolyn Simmons, Springhill College
Stephanie Smallegan, USA
Padma Thulasiraman, USA
Julie Walton, U.S. Army Corps of Engineers
Christine Winslow, Mobile County JROTC
Annie Xu, USA
Asiyeh Zakermosala, Chevron

JOIN US NOVEMBER 2 FOR GEMS 2019!
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