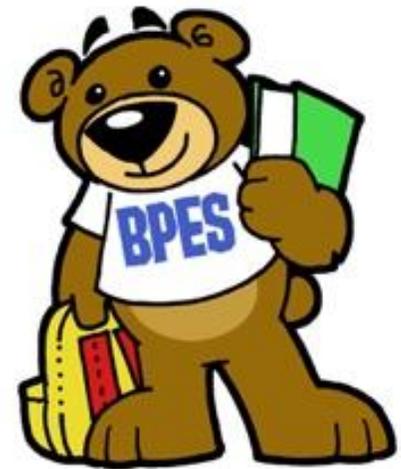


Welcome to Family Science, Technology, Engineering & Math (STEM) Night

Wednesday, December 4th, 6:45-8:30pm.



Event Program

- 6:45pm:** Families arrive and receive a station number starting point
- 7:00pm:** Presentations begin (rotating approximately every 6 minutes)
- 8:15pm:** Brief remarks and demonstration by Glenelg Robotiators
- 8:30pm:** Event concludes

Our Presentations

1

Cafeteria

BLOOD: We will learn about what makes blood so special that we can't live without it! We will discuss the basic parts of blood, its major functions, and how it moves around our bodies. *Presented by: Judith DeBose, MD*

2

Cafeteria

COOKING IS SCIENCE: Stop by and discover how to make ice cream without an ice cream maker! You'll learn how to measure, mix and create ice cream using rock salt to turn cream into a frozen treat in just a few minutes! *Presented by: Abby Peterson, MAC, LAC*

3

Cafeteria

CRYPTOWHEEL 101: This talk introduces younger students to the basics of substitution cryptography. Using a cipher wheel, students match separate alphabets to determine the 'slide' of the alphabet. Students are then challenged to solve a simple substitution cipher to put their new skills to the test. *Presented by: Candice Gerstner*

4

Cafeteria

DRONES 101 (Unmanned Aircraft Systems (UAS) Integration and Innovation 101): We will learn about different types of UAS (commonly referred to as Drones), innovative uses of UAS, along with the importance of flying UAS safely, responsibly and lawfully. We will discuss U.S. Federal Aviation Administration rules, programs, research and partnerships for integrating UAS in the national airspace while keeping the public safe and secure. We will discuss how STEM education (Physics, Engineering, Computer Science, Mathematics, etc.) is key to the evolution of UAS/Drone technology for public and commercial benefit. Students will be asked to share ideas on new ways they could use UAS/Drone technology to benefit society. *Presented by Sabrina Saunders-Hodge, Director, Federal Aviation Administration (FAA) UAS Research Division*

5

Media Center

MAKER SPACE: Visit Ms. Carey's "Maker Space" where you can create, explore, build, and program with a variety of materials. *Presented by: Christine Carey*

6

Cafeteria

MINDFULNESS: We will introduce the science of mindfulness and connection to health and brain science (neurology). How does our physical activity/posture/facial expressions effect our brain and moods? *Presented by: Lesley S. Hanes, MD MSc*

7

Media Center,
Computer Lab

PAINT WITH MATH: Create a masterpiece with Dr. Josh and GauGAN. Learn how finger painting and math come together to create a fun experience for all ages. *Presented by: Josh Sullivan, Ph.D.*

8

Cafeteria

PARKER SOLAR PROBE: Come find out about the coolest (and hottest) mission under the sun! During Parker Solar Probe's journey, it will swoop to within 4 million miles of the sun's surface, facing heat and radiation like no spacecraft before it. Launched in 2018, Parker Solar Probe is already providing new data on solar activity and making critical contributions to our ability to forecast major space-weather events that impact life on Earth. At its closest approach, Parker Solar Probe will be hurtling around the sun at approximately 430,000 miles per hour, making it the fastest man-made object ever, almost three times as fast as the current record holder. That's fast enough to get from Philadelphia to Washington, D.C. in one second! *Presented by: Prisca DeRosa*

9

Cafeteria

RENEWABLE ENERGY TECHNOLOGY: Renewable Energy is any energy source that is naturally replenished, like that derived from solar, wind, geothermal or hydroelectric action. Energy produced from the refining of biomass is also often classified as renewable. Coal, oil or natural gas, on the other hand, are finite sources. Learn about the differences between renewable and non-renewable energy sources and technology and the different common types of Renewable Energy Technology. *Presented by: Jammie Whitfield, CCM*

10

Cafeteria

ROBOTIATORS 888: Come see a demonstration of Glenelg High School robotics team's latest inventions. Talk to high school students and learn how you can get involved. *Presented by: Ray Gerstner and Glenelg High School's Robotiators*

11

Cafeteria

THE PROMISE OF GENE THERAPY: Our genes hold the instructions for how to build all of the parts of our bodies. Sometimes there is a mistake in that code and can cause part of body to be made differently which can cause problems. Scientists are building medicines that can correct the mistakes in order to help the body make everything they way it should be. We'll talk about the types of diseases that can be corrected with gene therapy, and the tools that are being used to make these new medicines. *Presented by: Jessica Carmen, Ph.D.*

PLEASE NOTE:

- In addition to our Maker Space (Media Center) and Painting with Math (Media Center, Computer Lab), we also have coloring and games for our friends that may need a break.
- Before you leave, please take a moment to sign our **"Thank You"** poster. We will be sending it electronically to all of our presenters and volunteers.
- Do you have any pictures to share? Please email them to bpsptapres@gmail.com.