2023 National ACE School Awardee:

Goldsboro Elementary Magnet School (Grades K-5)

Sanford, FL Principal, Dr. Chris Mulholland

ACE School Coordinator and Flight & Space STEM Teacher

who is also the

2023 National ACE Teacher of the Year:

Mr. Robert Wakelyn

G*oldsboro Elementary Magnet School has soared in the ACE program this year.** Under the leadership of a very enthusiastic Flight & Space STEM teacher, ***Mr. Robert Wakelyn, the entire school's students have been the benefactors of all the ACE program has to offer. The principal, ***Dr. Chris Mulholland***, has empowered Mr. Wakelyn to conduct above and beyond STEM lessons that have allowed the students in kindergarten through fifth grade to learn about aviation principles, be involved in many virtual space experiences, and be introduced to a variety of associated career opportunities! As Mr. Wakelyn is being recognized for his exemplary ACE participation with the national ACE Teacher of the Year award, his school is also being named the national ACE School of the Year. With that school designation, Goldsboro Elementary Magnet School will host the 2023-2024 National ACE Lift-off event in October.

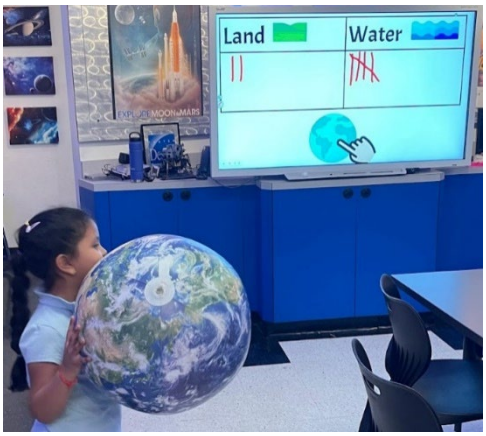
Mr. Wakelyn introduced the ACE program last year and followed through with an entire school implementation program again this school year. He learned about CAP and its many teacher programs from another teacher. He presented the ACE program lessons to all the students in the school – over 900 students! See news video of Mr. Wakelyn HERE!

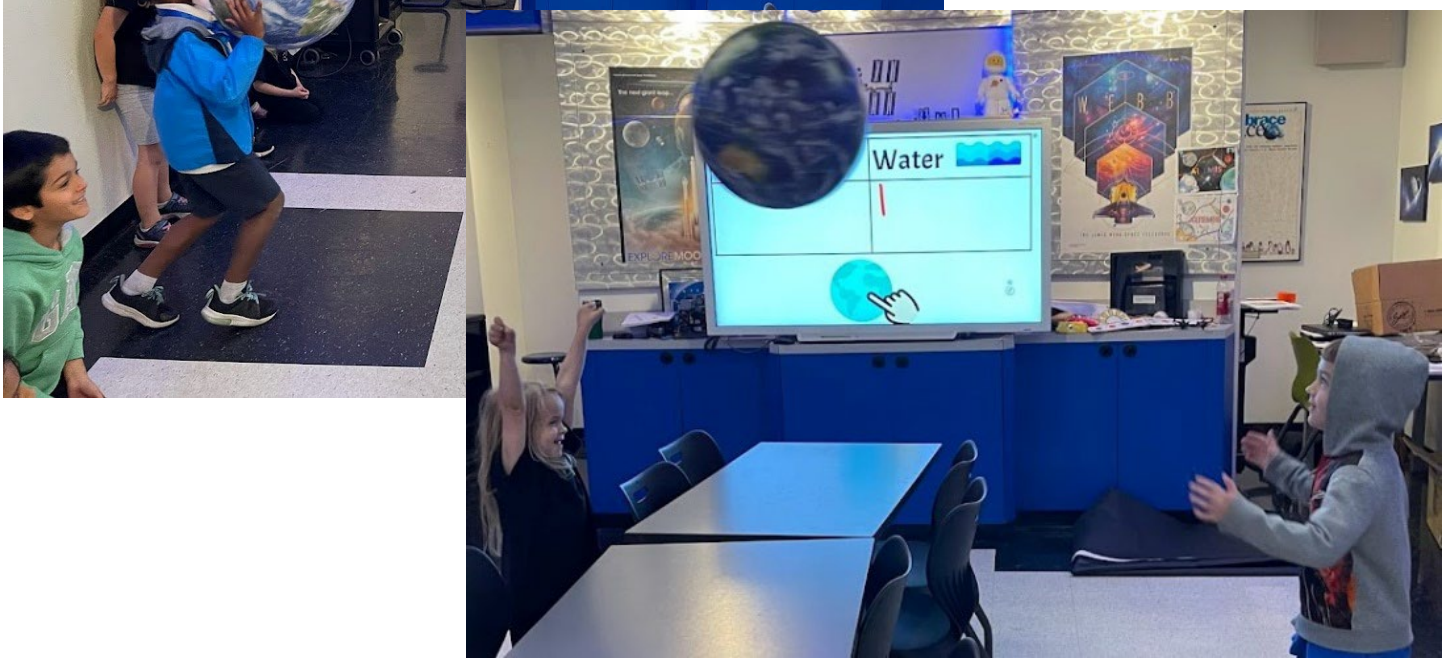
About Goldsboro Elementary Magnet School & Mr. Wakelyn's ACE Program:

At Goldsboro Elementary Magnet School, the ACE program is integrated in the "Kids Space Center," which is part of the school's magnet program. For the last two years, the school has used the ACE curriculum, along with some of the CAP STEM Kits, to supplement the school curriculum. The Space Lab instructor, Mr. Robert Wakelyn, oversees all the lessons that are being taught to the students.

Kindergarten ACE Highlight:

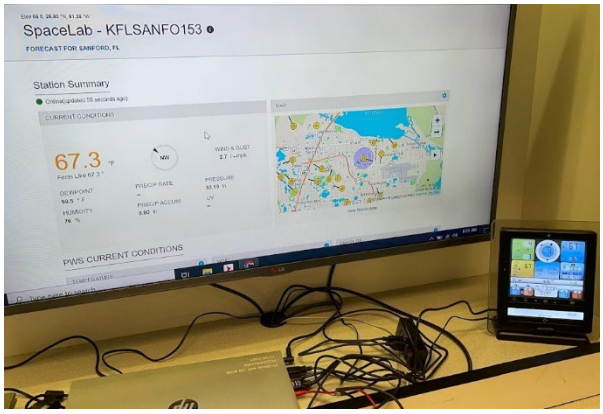
The students enjoyed learning about the amount of water versus the amount of land that covers planet Earth. They became the secret CAP Agency to help an alien's UFO land on Earth. During the mission, they participated in statistical activities to determine the chances of the UFO landing on land or water using an Earth beach ball.





First Grade ACE Highlight:

The students loved making and learning about how windsocks are important tools to help pilots identify the speed and direction of the wind. During this lesson, several hands-on items are used to demonstrate the associated concepts. The ACE balsa wood planes and a fan helped students visually understand the concept of being able to "see" the wind. The CAP Weather Station STEM Kit demonstrated another more modern way to identify the wind speed and direction. The students also saw a short video of windsocks in motion while the Artemis Rocket was on the launchpad. After learning about the use of a windsock, the students made their own and then flew them outdoors to see the windsock in action and its reaction to the wind speed and direction.



Second Grade ACE Highlight:

What students do not enjoy making and launching straw rockets and ACE foam rockets.? Although a very fun activity, the concepts of Newton's Laws are also introduced and demonstrated while launching simple straw/paper and foam rockets.

Third Grade ACE Highlights:

Third graders really focused on the historical aspects of Daniel Bernoulli and his concepts of fluid movement as relates to pressure, kinetic and potential energy back in the 1700s and how we still use his principles today in flight. The students practiced the paper strip Bernoulli activity to understand these concepts "in action." The students then learned about the parts of the plane, the four forces of flight, and how Bernoulli's Principle works with all of this. The students had to complete a distance challenge with the CAP foam planes, which they really enjoyed!

In another ACE lesson related to the ISS, they were able to view the ISS with 3D glasses and stereoscopic images which they thought was "cool!"

Fourth Grade ACE Highlights:

In fourth grade, the students learned about what the Wright brothers accomplished in the world of flight and reviewed the parts of a plane, using a couple of the videos found in the ACE curriculum guide. Then, to help check their understanding on this topic, the students created a Google form based on content from the original flight lesson, followed by one of the online activities related to flight. The ACE curriculum's virtual links really enhance the lessons.

A favorite ACE lesson is about the rocket plane. The students spend two days on this lesson, first, learning about the historic NASA Space Shuttle program and how it has evolved into the collaborative and competitive commercial space program of several organizations. Then, learning about the space plane, the Dream Catcher, and its future led into the students building and launching their fun CAP Rocket Planez.

Fifth Grade ACE Highlight:

In fifth grade, the focus was on the four forces of flight. The ACE-linked video about the Space Shuttle Enterprise allowed the students to explore space history and discuss how the orbiter was just a big glider upon which the four forces of flight were acting upon landing. The students folded and flew the CAP paper glider to experiment with the forces acting on a glider. They completed activity sheets related to identifying and graphing the four forces during flight. Then the students built and flew the CAP rubber band balsa plane that corresponded to the ACE lessons on flight; again testing and graphing the forces of flight on their planes .

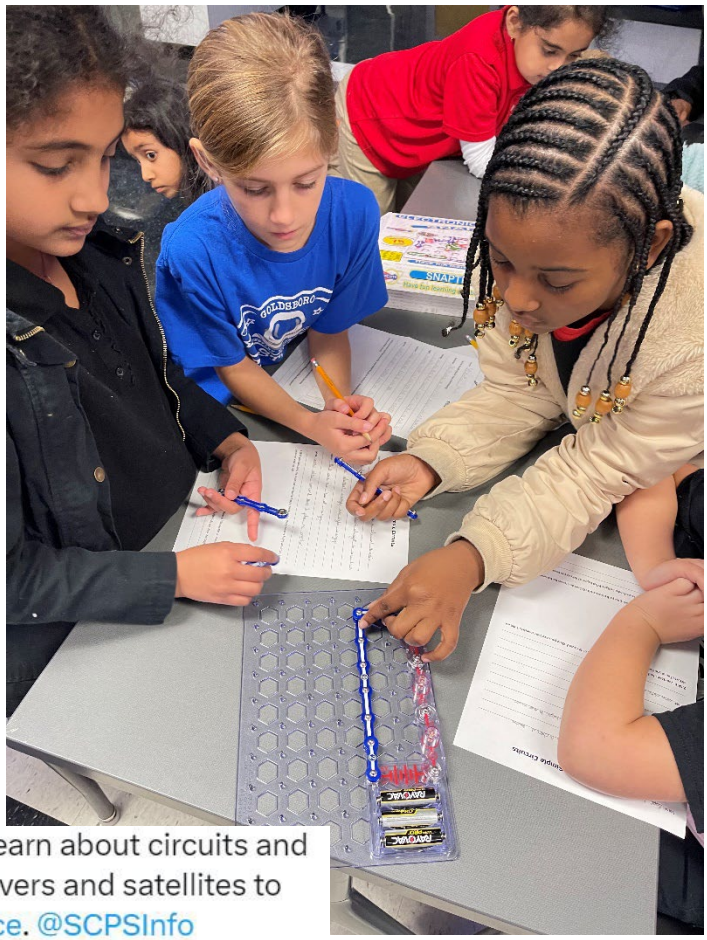
ACE Student Field Trip Connection with Civil Air Patrol:

During this past school year, some of the ACE students visited the Orlando-Sanford Airport for Aviation Day. At this event they got to interact with various planes and individuals related to the aerospace field. They met and talked with CAP cadets and met CAP Commander of Group 4, Maj AJ Ingle, who let the students sit in the CAP plane.

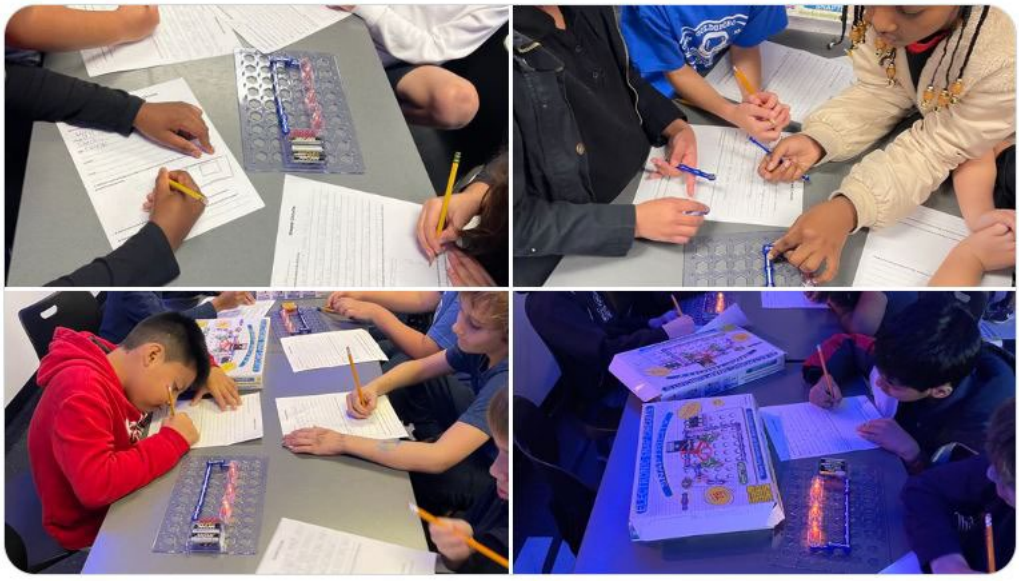
ACE Connections with CAP STEM Kits:

Mr. Wakelyn integrated various CAP STEM Kits to the ACE instruction, such as two examples:

1- Third graders had the opportunity to take a deep dive into basic circuit concepts using the Snaptricity STEM Kits. The students explored the kit's use and discovered ways that even in aerospace there are numerous career fields beside just being a pilot or an astronaut. The school posted about this on social media and tagged CAP/AE.



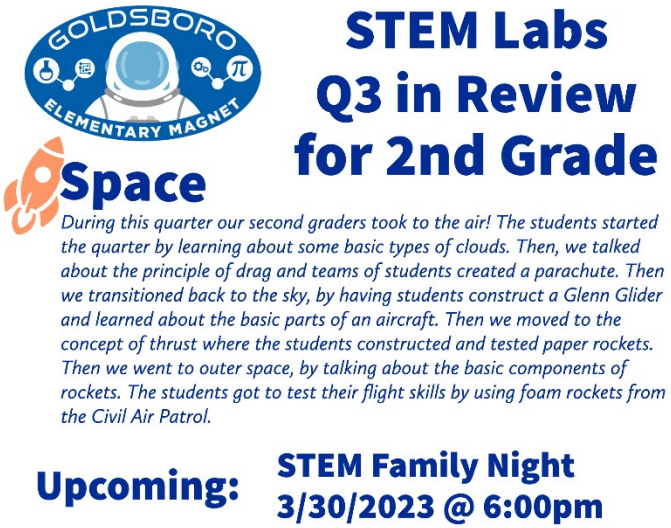
In our Space Lab, our third graders have begun to learn about circuits and how they are needed in building everything from rovers and satellites to rockets, using Snaptricity Kits from @CAPaerospace. @SCPSInfo @scpselementary



2- The students were able to work with the Astronomy STEM Kit, the Celestron telescope, both in the daytime and at night! They worked with the Central Florida Astronomical Society to have other larger telescopes during a Family Astronomy Night.

Communications with Parents and Community About CAP's Program:

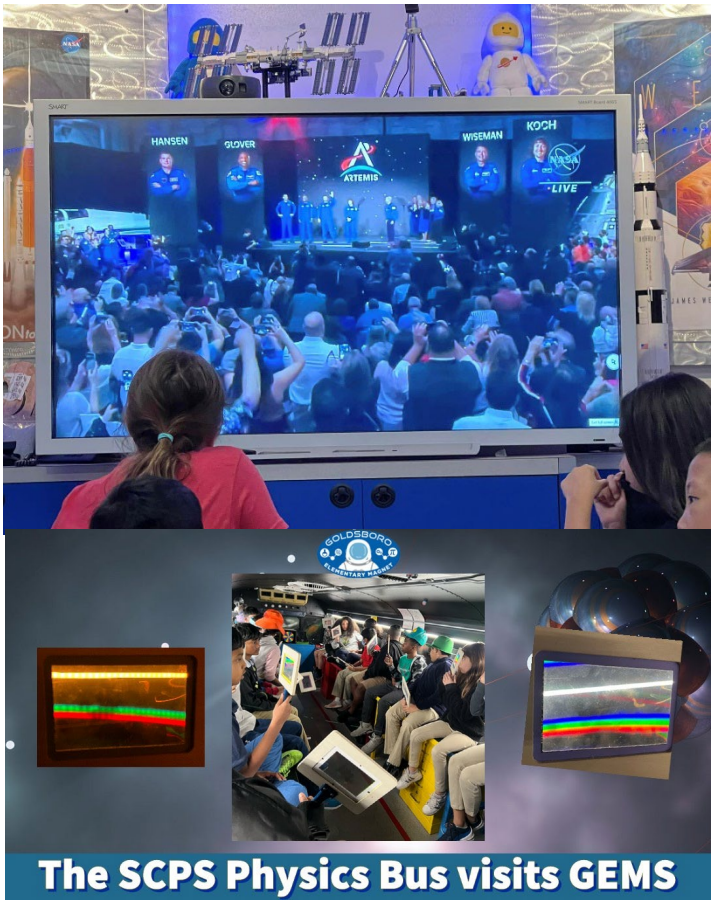
Communication with parents and the community about the school's events have been included in their quarterly STEM Newsletter and on social media. The newsletter has included info about the CAP's ACE program and the schools' social media posts have tagged @CAPaerospace. A partial newsletter and a social media post is seen below.



Students also shared what they have learned with their families. One of the families that was so inspired by what their daughter was learning wrote a letter to the school board, which was recently shared at the beginning of a school board meeting!

ACE Program Enhancements:

In the school's Space Lab, ACE content is integrated alongside other programs to help with aerospace education and the foundations of flight principles. Other focus areas to enhance ACE program integration were the Artemis I flight and the Amazon Voice Technology being tested on the flight with the Callisto demonstration; the updated Tree Seeds mission that the National Forestry Service is doing as a follow up to the Apollo 14 mission; any Space History dates being recognized; and how NASA plays a role in monitoring and helping with Earth Day, using various satellites. Virtual viewing of the Artemis Crew selection, having the Seminole County Physics Bus visit the school, and much more enhanced the ACE program. A final family Space Night involved all the families.



National ACE Teacher of the Year, Mr. Robert Wakelyn

National ACE School of the Year Principal, Dr. Chris Mulholland

CAP sincerely applauds and appreciated this soaring school, principal, and STEM teacher and their work with CAP's ACE program! Goldsboro Elementary Magnet School (GEMS) will host the 2023-2024 National ACE Lift-off event in Sanford, Florida next October!

CONGRATULATIONS, GOLDSBORO ELEMENTARY MAGNET SCHOOL, DR. CHRIS MULHOLLAND, PRINCIPAL, AND ACE TEACHER OF THE YEAR, MR. ROBERT WAKELYN!