

BITS & BYTES

THE OFFICIAL NEWSLETTER OF BRBYTES

BATON ROUGE: BRINGING YOUTH TECHNOLOGY, EDUCATION, AND SUCCESS

A few words of gratitude . . .

Tranquil, easy, stress-free, comfortable—these are words most people would not use to describe 2020, especially teachers. Yet you have worked hard and are having a lasting impact on your students.

This semester there are 41 teachers with 1835 students enrolled in our program. The valuable content and critical thinking skills students are learning from you will prepare them not only for future classes, but for future employment as well. The need for employees trained in computer science related fields is growing, and these jobs can provide pay and benefits that could change the trajectory of your students and their families in a very positive way. Though many students may be given the “at risk” label, we know they are all “at possibility,” and what you are doing is making the possible more probable.

We value and appreciate the extraordinary effort you have put in to keep the learning going this semester. You have been amazing, positive, and sensational—words we, hopefully, will use more in 2021. Thank you, and happy holidays!

Course	Total # of Students Enrolled	# of Economically Disadvantaged Students Enrolled	# of Underrepresented Minority Students Enrolled	# of Rural Students Enrolled
Introduction to Computational Thinking	966	544	587	120
Cybersecurity	63	18	19	18
Survey of Computer Science	284	103	250	35
Data Manipulation and Analysis	32	13	16	0
Programming for STEM	4	2	2	4
Introduction to STEM Pathways and Careers	486	187	355	39

THANK YOU TO OUR FALL 2020 TEACHERS:

Zaveola Banguel
 Marqual Brown
 Tate Carson
 Dylan Ceide
 Emily Conn
 Rhonda Crawford
 Alex Daniel
 Dawn Edwards
 Michelle Foster
 Steven Frazier
 Matt Gaspard

Lorie Gaubert
 Marc Gilbert
 Cynthia Gonzales
 Terrie Hasten-Fleming
 Brittany Jackson
 Brandy Jolivette
 Shehla Khan
 Brandon Landry
 Maura Lewis
 Stephen Maffett
 Heidi Main

David McMillan
 Kyle Melancon
 Marilou Ner
 Day Russell
 Peter Russo
 LaShandra Seymour
 Brandi Sieber
 Charles Sonnier
 Sally Spahn
 Lindsay Stag
 Melissa Stevens-Mitchell

Danny Thomasson
 Chris Thorne
 Katy Ullrich
 Eric Vidrine
 Tammy Washington
 Nia Williams
 Jaquincia Williams
 Sonia York

IN THIS ISSUE

Spring Community of Practice Calendar

Student Engagement Strategies

Classroom Spotlight: Maura Lewis

Join our community of practice next spring

*The following dates are for all Community of Practice meetings for Spring 2021.
Remember, you are required to attend one meeting per month.*

Thursday, Jan. 21 OR Saturday, Jan. 23
 Thursday, Feb. 18 OR Saturday, Feb. 20
 Thursday, March 18 OR Saturday, March 20
 Thursday, April 22 OR Saturday, April 24



Computer Science Career of the Month: **COMPUTER HARDWARE DESIGNER**

Computer hardware designers create the physical pieces that make computers work, like the central processing unit, monitor, mouse, keyboard, computer data storage, sound and graphics cards, and more. They design, test, and manage manufacturing of computer hardware. Their average salary ranges from \$71,007 to \$113,337 and jobs in this field are expected to grow by 6% from 2018 to 2028. Most computer hardware designer jobs require a bachelor's degree in computer hardware engineering. Other related bachelor's degrees, like computer science and electrical engineering, are also acceptable, especially if you earn certifications in hardware engineering. It also helps to build skills in engineering and board design, as well as programming languages like Verilgo, C, and C++.

Source: computerscience.org

ANNOUNCEMENTS

REMINDER: Please ensure student assent and parent consent forms are completed before the end of the semester. These can be completed online through student access.

Congratulations on completing the fall semester! From everyone here at BRBytes, we wish you a very happy holiday season and a restful break. See you next year!



web: brbytes.org
 email: info@brbytes.org

partners & funding agencies:



How BRBytes teachers have implemented student engagement strategies

Students keeping question documents to refer to as the teacher helps them

- **Brandy Jolivette** of St. Martinville Jr. High School in St. Martin Parish posts a question section for every Google Classroom assignment. In this section, students can ask and answer questions. She said “students feel a sense of empowerment when they can help another classmate with an issue” and “they love to collaborate in assignments.”
- **Marcus Gilbert** of STEM Magnet High School has his students type their questions into a document. As a class, they then “create CodeWorld examples that students can use to have a reference for the code that matches what they are trying to do.”

Drones and root coding robots

- **David McMillan** of West Feliciana High School in West Feliciana Parish uses drones and root coding robots as tangible objects his students can use as a break or reward during class. “The students like to interact with the drones and coding robot,” he said, “even though the coding robot is in block coding, they like programming it to make shapes, letters or to get through a maze.” The students enjoy this change of pace, and his goal is to create drone and robot activities that are challenges relevant to classwork.

Playing music during class

- **Victoria Palamone** of Glen Oaks High School in East Baton Rouge Parish allows her students to play music out loud during independent work. When they have finished and turned in their assignment, her students usually break out in dance. She said music “is a great motivational tool to get them to stay on task and complete work” and it “can really affect their mood and work ethic.”
- **Zaveola Banguel** of Istrouma High School in East Baton Rouge Parish sometimes selects a class DJ who is tasked with creating a playlist for the class to listen to during a specified part of class. She said “this activity really brightens my students up” and it “helps my students be more alert and more responsive during class activities.”

Virtual scavenger hunt

- **Rhonda Crawford** of Pine High School in Washington Parish had her students search online for new uses of robots. She said “they are into it when you can spark something interesting.”

Virtual KWL charts (Know, Want to Know, Learned)

- **Michele Walker** of Broadmoor High School in East Baton Rouge Parish uses KWL charts on Padlet, Nearpod and Jamboard. Her students like posting answers and questions. She said “they prefer virtual and they like collaborating anonymously or with identification factors I issue to them.”

Have students submit 3 words describing how they feel

- **Michelle Foster** of Mayfair Lab School in East Baton Rouge Parish has her students share how they’re feeling in their bellringer, then they share with the class in a whole group discussion. “Students enjoy hearing [and] learning about other students and comparing their similar characteristics,” she said, “they are also more interested and engaged when the teacher shares with them as well.”

Celebrate wins, both big and small

- **Sally Spahn** of Ben Franklin High School in New Orleans always shares the positives first when she does a code review of a student’s work before she asks questions or suggests changes. She has found that this makes students “more relaxed” and “less nervous” when they are asked to share their code.
- **Brandon Landry** of Tara High School in East Baton Rouge Parish works with students to look at the code piece by piece to “discuss what we know and celebrate those things that are right” instead of looking at the code as a total success or total failure. He said “this allows us to not get frustrated when focusing on the things we need to fix. One simple mistake may make the output look wrong, but it doesn’t mean your whole code is a failure.” He has noticed that using this method has helped students become more open to trying things.
- **Shehla Khan** of Capitol Middle School in East Baton Rouge Parish has had students who rarely show up to class, so her class has “started celebrating their presence.” After starting these celebrations, she noticed the students’ “frequency of showing up has increased.”
- **Katy Ullrich** of Liberty High School in East Baton Rouge Parish shared the cultural projects with students, “emphasizing how well students did, pointing out their successes and acknowledging those that went beyond the scope of the project requirements.” The students were proud of their work and she is hoping to continue encouraging students to show off their skills when they create a project.

Have students write brief reflections

- **Eric Vidrine** of Delhi Charter School in Delhi, LA has students make short daily video responses in which they describe their progress on their project and ask questions they have. He said “I think I’ve been getting better feedback from the video response than I have from just written responses, as it’s more natural for the students to just talk about their project than it is for them to write it down.” In return, he also posts supplementary tutorial videos to help bridge the gap in students’ skill level.
- **Tammy Washington** of Istrouma Middle Magnet School in East Baton Rouge Parish has students write what they learned and express their feelings and opinions on the current subject in their essential question and exit tickets. She said the responses have shown “how [students’] learning process is more towards doing, discussing, and example learning than anything.”

CLASSROOM SPOTLIGHT

MAURA LEWIS | WOODLAWN MIDDLE

COMPUTING EVERYWHERE & SURVEY OF COMPUTER SCIENCE

With degrees in computer science and mathematics, Maura Lewis of Woodlawn Middle School has always wanted to teach computer science.

"I've been waiting for the opportunity, and I've just loved it," she said. "I've been programming since I was in 10th grade . . . and I just want other kids to love it too."

Lewis currently teaches the BRBytes Computing Everywhere and Survey of Computer Science courses, along with 8th grade math. In her computer science courses, her goal is to help her students build practical computer skills and truly understand computer science and how they use technology in their daily lives.

"I want to make sure that when [my students] get to high school and college that they understand really how computers work and I think that would be just amazing if they could really speak in those terms," Lewis said.

To do this, she keeps students at the center of learning. She provides ample opportunities for them to "put themselves into what they're doing [and use] their eyes to see how the technology is working around them."

Lewis has found that her students have come in with a wide range of

prior experience. Because of this, she has structured her class to accommodate both learners who have never used Scratch programming before and experienced and interested students who are "zooming" through lessons. This structure involves coming together as a whole class to learn something new, like a smaller program that will help them complete the larger one on their own. Students then have independent work time, which allows them to pick up where they left off and work at their own pace.

"I would love for us all to be able to work synchronously, but that's just not going to be possible, just because of their experiences," Lewis said.

Along with a variety of experience levels, COVID-19 has also had a large impact on the way Lewis structures her classes.

"I wish the kids could interact more with one another," she said. "If it was a world without COVID, I could see the kids paired up, discussing things a little more, and moving faster."

However, because of COVID-19, some students are attending class from home, and even those who are attending in person must be physically distant from each other, preventing them from

showing each other their screens and working closely together.

"They are kind of coding in isolation, which is not something they're used to doing," Lewis said. "They're used to working together and talking things out, so they have to learn how to learn in this new environment too."

Lewis has also brought an organizational strategy she uses in her math course over to help her stay organized in the BRBytes courses she teaches. She gives every assignment in all her classes a name, such as "Two Mama Ducks," "School Shirts" or "Voting Part One."

"I tried to give them names that kind of stuck in the kids' heads and stuck in my head so they knew if I said 'Voting Part Two' they know exactly what that assignment was," Lewis said.

This helps to keep everyone in the class organized, engaged and on the same page.

"They're only as organized as I am, so if I can stay pretty organized with what I design for them, then that helps them," Lewis said.

Lewis is enjoying sharing her passion for computer science with her students and working with them to make the best of a complicated year. Her motto for 2020: "just keep going."

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  <meta name="description" content="The Everglades is one of the biggest tropical wilderness in the United States it contains different wildlife and there are different activities that you can do as well.">
  <meta name="keywords" content="exotic wildlife, boating, hiking, camping, subtropical wilderness">
  <title>Everglades National Park Muhammed Hijaz</title>
</head>
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<hr>
<p>The Everglades is a unique treasure found in South Florida. The Everglades is the largest remaining subtropical wilderness in the United States. It consists of 1.5 million acres of saw grass marshes, mangrove forests, and hardwood hammocks dominated by wetlands. It is home to endangered, rare, and exotic wildlife. The everglades have so many different activities that you could participate in such as boating, camping, bicycling, bird watching, hiking and so much more.</p>

<a href="https://www.nps.gov/ever/index.htm">To learn more about Everglades National Park click here!</a>
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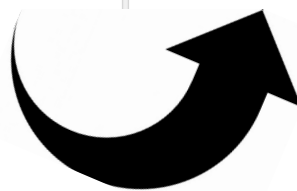
Everglades National Park

The Everglades is a unique treasure found in South Florida. The Everglades is the largest remaining subtropical wilderness in the United States. It consists of 1.5 million acres of saw grass marshes, mangrove forests, and hardwood hammocks dominated by wetlands. It is home to endangered, rare, and exotic wildlife. The everglades have so many different activities that you could participate in such as boating, camping, bicycling, bird watching, hiking and so much more.



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From Code



To Webpage