Fun with science

BY: NATASHA BECKLES

LEARNING CALCULUS during the summer holidays may seem like a nightmare to most teenagers. But this is just what ten secondary school students from throughout the region did for four weeks – in addition to physics, biochemistry, humanities, Mandarin, robotics and electronics. They were part of the Student Programme for Innovation in Science and Engineering (SPISE) which was the brainchild of Professor Cardinal Warde, a Barbadian who is the interim executive director of the Caribbean Science Foundation and a professor of electrical engineering at Massachusetts Institute of Technology (MIT).

Among the 15- to 17-year-olds who took part in the extensive residential programme in Barbados were three Barbadians: Reaiah Harris, Kayla King and Zackary Gurdon-Cobham. The SUNDAY SUN caught up with them last Friday shortly after they presented their final projects at the 3Ws Oval at the University of the West Indies Cave Hill Campus. In the electronics project presentations, they explained the functions of the systems they had created based on electronic circuits and demonstrated their operation. They also explained how they were able to assemble underwater robots which performed various movements before a number of captivated onlookers.

Seventeen-year-old Harris, who studies physics, chemistry and mathematics at Barbados Community College, noted that although the programme was intensive, it was also a lot of fun. The aspiring electrical engineer explained that she not only learnt a number of new subjects but she got the opportunity to work with young people from across the region. “I’ve learnt to be more responsible and I’ve learnt that teamwork and time management are very important because we had a lot of work to do and we had a lot of late nights. “Things weren’t easy but everyone worked together and because of that, things actually finished a lot faster. We would probably go to sleep at five and wake up at seven o’clock in the morning,” Harris said, adding that the typical day was “very, very rough”.

“It was also fun because everyone always tried to make some jokes.” This view was shared by 16-year-old King. “Sometimes we had sleepless nights . . . . We would be working together and we might feel tired but then there was always something for us to laugh about. “Someone would crack a joke and we would laugh and then we would get back to work. We would always finish the work on time even though it was hard,” she said. King admitted the workload was heavy but she learnt how to work with others and enhanced her innovative

skills. “Learning everything in four weeks was quite a push for me because I’m not accustomed to being taught so many subjects in such a short space of time,” she said. The Combermere School student added that SPISE opened her eyes to the wide variety of careers available in the science field. “I would like to become a paediatrician but this programme will help me to explore all the aspects of science and engineering to let me know if paediatrics is exactly what I want to do or if I would like to change my career [plans].

Glad for opportunity “I learnt Mandarin and other subjects that I had no idea about at first. It was very interesting and I also learnt that science evolves into many different branches of careers and it’s not only in medicine. I would like to explore those sciences and I am glad that I had the opportunity to do it,” she said. Meanwhile, Gurdon-Cobham, of Harrison College, said he initially wanted to participate in the Minority Introduction To Engineering and Science programme at MIT which targets high school students. Incidentally, when he heard that the deadline for applications had passed, he also heard about the SPISE programme which was more convenient since it was offered locally. “I decided to come here and see if I could get a good idea of what I really want to do when I grow up because I have an idea of being an aeronautical engineer.

“It was fun. It was pushing my limits and I realized, wow, there is a lot more I can do after what I just finished. I thought, ‘What more can I learn about maths? What more can I learn about physics?’ I realized there is a lot more.” He noted that robotics was the most interesting part of the four-week programme. “It was fun having an idea of engineering and the things you have to deal with . . . the circumstances that you have to put different objects through,” he said. Responding to the question of why some students find science extremely challenging, he said: “Science may only feel difficult because of the person who’s teaching you, but if you find a good teacher, a person who really knows how to bring it to real-life problems and makes it easy to understand, you’ll eventually get it.”

Meanwhile, Harris urged young people who were interested in any branch of science to apply for the programme next year. She also urged additional sponsors to come on board. “Because of this experience I have learnt a lot. I have been exposed to people from all over the Caribbean and from the first day we became very close . . . and we’ve built lifelong friendships,” she said.

• Positive Youth is a series highlighting youth in our nation who are engaged in positive pursuits. If you know any such people, please contact Natasha Beckles at 430-5459 or natashabeckles@nationnews.com; or Bryan Walker at 430-5492 or bryanwalker@nationnews.com