

# The TDA Tech Series ® click here Presents "Computer Programming" In Partnership with



# What Is "The TDA Tech Series ® "?

<u>The TDA Tech Series</u> is our platform for delivering technical and technological skills to our students through innovative partnerships.



### Announcing Computer Programming Lessons in Partnership with the University of Cincinnati!

We have partnered with the University of Cincinnati (<u>www.uc.edu</u>) in reimagining education in Botswana. UC and The Dow Academy share similar values and

goals in helping our youth grow holistically. A delegation led by Vice Provost Dr. Raj Mehta and faculty from the School of Education at UC visited The Dow Academy in Mochudi, Botswana, in late January 2020. As a culmination of that trip and follow-up visits from members of The Dow Academy team, we were able to offer our 2020 Standard 4 students our very first programming class. This class was very successful, and you can read more about it in this <u>article</u>. Through our continued partnership between UC and TDA, we are happy to once again offer our 2021 Standard 4 students computer programming lessons.

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Through the TDA Tech Series, we will therefore be offering after-school computer programming lessons for 20 students in Standard 4. The computer programming course will be led by Dr. Mohamed Elwakil, Assistant Professor of Computer Science at the University of Cincinnati.

To learn more about Dr. Mohamed Elwakil's professional summary click <u>here</u>; for details on the University of Cincinnati's ICT programme click <u>here</u>.

# What Is Computer Programming?

Computer programming, also known as "coding", is a way of giving computers instructions about what and how they should carry out tasks or a sequence of tasks. These instructions are known as code. Computer programmers write code to solve problems or perform tasks. Through programming, we can create computer and phone applications (apps), games, websites and all the other technologies we interact with on a daily basis.

### Why Introduce Computer Programming @TDA?

Just like reading or writing, coding is basic literacy in the digital age. It is therefore important for our learners to understand, work, design and influence the technology around them.



Having children learn coding at a young age better prepares them for functioning successfully in the digital age. Coding helps children with communication, language skills, creativity, math, writing, ICT and confidence. Our coding program will teach children computer literacy, leading to an introduction to computer programming.

Please be assured that our computer programming lessons will continue to follow strict Covid-19 prevention guidelines.

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### How Will it Work?

Our computer programming lessons will be led by Dr. Elwakil, based in the USA. Dr. Elwakil will be teaching real-time via a live stream, and will be assisted in The Dow Academy classroom by two TDA staff members.

The students will be programming in pairs using brand new TDA laptops which will be procured specifically for this programme. One student will be at the keyboard, while the other student will be assisting and following along on a separate screen. Students will take turns at the keyboard and at assisting. The programming in pairs system has been recommended by our global partners as they found it is the best way to teach students to code. Coding in pairs has become popular as it allows team members to tackle problem solving quickly, while building communication skills and team work. See the benefits of and how coding in pairs works <u>here</u>.

Along with the computer programming course, The Dow Academy has designed a basic computer literacy course to prepare each student to get the most out of the programme. This introductory course will ensure that students of varying computer literacy backgrounds are able to participate in the programming course. This basic computer literacy course will run at the same time as the coding programme.

At the end of this programme, our Standard 4 students will obtain a strong foundation in computer literacy, an understanding of computer programming and new insight into a skill they can pursue as a career.

# How Do I Apply?

Interested students at The Dow Academy who are currently in Standard 4 are eligible to apply. Students should email a one page typed document to <u>info@thedowacademy.org</u>, or submit a handwritten letter to their class teacher. The application should describe why the student is interested in the programme, and how they would use the skills they learn in their community. Parents should please click **here** to confirm consent for your child to participate.

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20 students will then be selected based on the quality of their applications and the parents completion of the parent consent form.

The deadline for the application is **<u>26 January 2021</u>** and will be strictly enforced.

# When Does it Start and How Much Does it Cost?

Computer Programming Lessons and Basic Computer Literacy	01 February 2021 - 08 April 2021
Lessons	14:00 to 16:00 Mondays, Tuesdays and Thursdays
Venue	The Dow Academy Reception Campus
Cost	P1,000 per student

