What is iCOMPUTE?

iCOMPUTE is program aimed at Ismaili youth. It aims to bolster participation in STEM, specifically Computer Science and Software Engineering, by providing youth with exposure to the field and opportunities and support to build pertinent skills and develop a growth mindset.

iCOMPUTE consists of three levels. In Level 1, participants work with Scratch to learn basic computational concepts. In Level 2, participants apply computational concepts to build an app using Appinventor. In Level 3, participants are introduced to the basic principles of descriptive and inferential statistics using R.

What is iCOMPUTE for Parents?

iCOMPUTE for Parents is a program designed for parents of students in the iCOMPUTE program. This program aims to introduce parents to computing concepts and put these concepts into practice with hands-on coding experience. iCOMPUTE for Parents will take participants through a condensed version of all three iCOMPUTE levels. Participants will learn key terminology and branches of Computer Science and Software Engineering, develop a game using Scratch (the language used in iCOMPUTE Level 1), develop a phone app using AppInventor (the language used in iCOMPUTE Level 2), and preview material used in iCOMPUTE Level 3.

iCOMPUTE for Parents has five main objectives:

- 1. <u>Help parents help their children</u> Introducing parents to concepts and programming languages used in iCOMPUTE will allow parents to help their children when they run into computing challenges, whether in the iCOMPUTE program or elsewhere.
- Help parents understand their children Learning to code can be compared to learning a language. Just like English, French, Farsi, and other languages, nothing makes sense until you understand at least a few words in the language. iCOMPUTE for Parents exposes parents to the language of code so that they can have more meaningful conversations with their children, and better understand them when they talk about coding.
- 3. <u>Help parents further their child's education</u> By learning basic coding concepts, parents will be in a better position to understand and further develop their child's education. Having hands-on experience with code will allow parents to better understand what their child is learning and identify more opportunities to complement what they have already learned. Gaining some coding knowledge will also allow parents to have more meaningful conversations with their children's teachers to determine areas for further development.

4. <u>Help parents identify career opportunities for their children</u> – Participants will learn about various branches of Computer Programming. Combined with the computer programing experience that will be gained in this program, participants will be in a better position to identify potential areas of interest and understand career opportunities for their children, particularly in STEM fields.

Is iCOMPUTE for Parents right for me?

iCOMPUTE for Parents is designed for parents of students currently taking iCOMPUTE. However, the concepts learned in this course are applicable to all parents whose children might be interested in coding.

Participants are required to be comfortable operating a computer (Ie. Using the mouse/trackpad, opening applications such as web browsers/Internet, etc.), but no prior coding experience is necessary.

What if I don't have a child in iCOMPUTE?

Preference will be given to parents who have a child currently taking iCOMPUTE, but parents whose children have taken iCOMPUTE previously or are planning to take iCOMPUTE in the future are also invited to register. Other adults may join the class if space permits, but should note that the concepts learned will be less applicable to them.

Will iCOMPUTE for Parents help me get a job?

iCOMPUTE for Parents is designed to help parents support their children. As such, this course is based on coding languages that are designed specifically to facilitate children's learning. While these languages are useful for learning and developing projects relatively quickly, these languages are not used in industry (with the exception of R from Level 3, which will be covered only briefly in this course). As with iCOMPUTE, iCOMPUTE for Parents can be a great stepping stone for a career in Software Development, but further education will be required. Resources for external programs will be provided for parents wanting to learn more.

Will iCOMPUTE for Parents teach me how to use technology?

Participants should be comfortable operating a computer, but will be taught to use the required programs (Scratch and AppInventor via a web browser). iCOMPUTE for Parents is a course about *designing software*, not a course about *using technology*. Thus, participants will not be taught to use technology beyond what is required for the course.

What will I learn in iCOMPUTE for Parents?

The curriculum is divided into 3 modules (see below). Each module relates to a particular level of iCOMPUTE. In each module, participants will learn various concepts and terminology, which they will put into practice through a hands-on coding activity.

Participants will learn key terminology and branches of Computer Science and Software Engineering, develop a game in Scratch (the language used in iCOMPUTE Level 1), develop a phone app in AppInventor (the language used in iCOMPUTE Level 2), and preview material used in iCOMPUTE Level 3.

Module One:

- 1. Introduction to Computing
- 2. iCOMPUTE Level 1 Terminology
- 3. Activity: Developing a Game

Module Two:

- 1. iCOMPUTE Level 2 Terminology
- 2. Activity: Developing an App

Module Three:

- 1. iCOMPUTE Level 3 Overview
- 2. Careers in Computer Science/Software Engineering

What is the schedule for iCOMPUTE for Parents?

iCOMPUTE for Parents is taught over four (4) weekly sessions of 3 hours each. These sessions will coincide with at least one level of iCOMPUTE and are designed such that parents can attend class at the same time and location as their children.

I can only attend some weeks - can I still enroll in iCOMPUTE for Parents?

Just like the iCOMPUTE program, iCOMPUTE for Parents runs on a tight schedule; each session introduces new concepts that build on concepts from previous sessions. If you miss a week, this will hinder your learning and will also create a challenge for facilitators. Please ensure that you can attend all sessions prior to registering.

What technology do I need to attend iCOMPUTE for Parents?

You will need a laptop for the duration of the course. Access to an Android phone or tablet is strongly recommended for the app development portion of the course.

We would like to ensure that there are no barriers to accessing the program, so if you have difficulty getting access to a laptop, please contact your local AKEB Excellence in Education Member.

I have a question, who can I contact?

The National Convener for iCOMPUTE, Alysha Rahim at alysha.rahim@iicanada.net.

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