Waza Experience

Inspiring the next generation of innovators!

About Waza

Waza Experience provides a holistic learning experience by equipping students with technological skills using platforms such as Arduino and Raspberry Pi, and soft skills we collectively call the 5C's: Collaboration Skills, Communication Skills, Creativity, Critical Thinking and Curiosity. Visit **www.wazaexperience.org** for more information.

HIGHLIGHTS FROM 2015

March 2015

1

MAKER BREAKER

The kids watched a couple of videos that showed them the breadth that innovation and technology offers them. These included Richard Turere's TED talk, in which he highlights his efforts to tackle the problem of lions, and a young Sierra Leonean, Kevin 'DJ Focus' Doe. They served to demonstrate the ability of young people to come up with solutions to the issues and to tap into the kids' talents and skills.

Kids were later paired for an empathy session during which they shared highlights and lows of their days with each other. Kids also identified challenges they encounter as they go through their day's activities. After the paired sessions, the kids identified the most common problems that they faced which included: injuries during sports, difficulties in waking up, problems in managing homework and wasting time during traffic. During the Build It session, the kids were tasked to find and build solutions for the identified problems. Working in groups, the kids came up with various solutions to the problems they were tackling and built prototypes of their solutions. The day ended on a high note with the groups showcasing their prototypes and sharing their ideas with the whole group.

2

PROGRAMMING

April 2015

On April 10th and 11th 2015 the kids from Waza Experience had their first technical class-KHC Programming-Alice and Greenfoot. The sponsor for the camp was Oracle. GEMs Cambridge International provided the venue and computers to use during the camp. After the event parents were encouraged to download the programs for the kids to continue the programming. By the end of the day, the kids programmed interactive story boards using Alice programming Language and Flappy bird game using Greenfoot Programming Language.

3

EMPATHY

May 2015

The kids were tasked with conducting interviews across the building to get information on a day in the life of a professional. They drafted questionnaires and divided into teams. At the end of the session, the kids were able to present information on the different professionals they interviewed, the challenges they identified and some

potential solutions to the problems found.

4

IDEATION

June 2015

The kids defined the problem identified in the interviews and came up with multiple solutions to solve those problems.
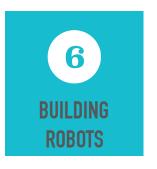
5

ELECTRONIC BRAINS

July 2015

During this iteration of the program, the kids were introduced to the amazing world of microcontrollers, computer chips that act as the "brains" of modern, unassuming, digital devices and appliances like digital watches, printers and countless others. We had put together a number of exciting arduino-based projects; like our robot laser arm whose beam is controlled using

dual joysticks salvaged from a cheap Chinese gamepad. We then challenged the kids to direct the beam through a "rally course", we had drawn out on a whiteboard. It was so much fun!

6

BUILDING ROBOTS

August 2015

This camp was held on the 7th and 8th at iHub. The kids were taught how to assemble working robots using sensors, and electronic brains (microcontrollers). This enabled them to design and implement systems that take information from the environment and bring some change to the environment,

example, a robotic arm.

7

PROTOTYPING

September & October 2015

The kids built working prototypes of their choice projects. We had four groups, working on, an alarm clock, traffic light, mobile phone security system and a security

Special thanks to all the trainers