Scheme of Work: COLAB International

|  |  |  |  |
| --- | --- | --- | --- |
| Time | Section | Break down | Remember |
| 10am 15 MINUTES | WELCOME (Red Hat Moderator) Welcome and overview of Red Hat Introductions + CO.LAB overview Women in technology  CO.LAB norms | N/A |  |
| 10:15am  15 MINUTES | WHAT IS OPEN SOURCE AND COLLABORATION (Red Hat Moderator) Collaborative icebreaker What is open source and collaboration? | N/A |  |
| 10:30am  15 MINUTES | WELCOME FEMI + GIRL CODERS (Femi + Girl Coder mentors) Curriculum overview Equipment handout + overview Icebreaker | Femi:  Keynote intro  Very excited to be here at the Tate Modern with Red Hat delivering this session with 3 other young coders who are inspirational.  A year ago we ran YMC as part of Tate exchange - one of the sponsors were ReD Hat. I was invited talk in San Fran and over the year I have realised that we share a commitment to Open Source, community and collaboration and here we are. I’m proud to share a platform with Avni, Nishka & Avye who are your mentors today.    Nishka/Avye & Avni intros  “ As Red Hat are giving out equipment - let me tell you what we’re doing over the day  **Objectives**  Intro to Microbit - help each other  Create Microbit Musical Glove (after lunch)  Collaborate on a Musical piece | Give out boxes |
| 10.45am  45 mins | TECHNICAL SESSION #1 (Femi) Introduction to the Microbit Creating scroll designs + animations Show + tell | Get your microbits out of the box, let play a game  Ice Breaker - x2 rounds  Go into session -  Microbit/Make code (colour/ of blocks & symbols)  Simulator  **Scroll name**  Design your own i**con/ animation** - show example(clock hands)  Use an input - read temp.  Explore the different input  Download code - name file and put in microbit to laptop  Watch this video - using gestures to activate thing and control music has become high tech.  Video - we are going to make our own Microbit version - obviously not so sophisticated but it will give you an understanding of some of the code behind.  After lunch you will make your own musical glove. | Powerpoint  Give everyone MI Power Board and everyone stands up  Use laminated squares and dots  Use cables - plug in  Set YouTube link |
| 1.30am  45mins | RESTROOM BREAKS (reminder: chaperone necessary) LUNCH | N/A - set up Sound boxes and symbols |  |
| 12.25pm  45 mins | TECHNICAL SESSION #2 (Femi) Examples of Microbit glove Creating the Microbit glove Coding the Microbit with music | Have a look into your box - can you find a glove. Thanks to Paula, Karen and … you don’t have to sew your own - to save time lets get straight to the coding bit. First thing - go back to MakeCode and open a new project.  Input block  Now drag out Melody and play through them - chose your favourite and get it to play using an input. Use the simulator.  A melody is a sequence of notes - let try making our own melody.  It doesn’t have to be brilliant - we just explore and experimenting - please don’t feel you have to be perfect - try different things - if it doesn’t sound good - try something else.  Ruth to give an Open Source analogy  Now plug in your MIcrobit, name and save your code. Flash to the microbit and experiments.  Show & Tell - what inputs did you use? Lets list them. | Take home boxes  Glove  MI Powerboard  Microbit/cable  Flip chart /board |
| 1.10pm  2 hours | TECHNICAL SESSION #3 (Femi) Introduction to the collaborative piece Radio waves Creating the music + building the installation | Next we will be using our Microbit gloves differently - this time to send radio signals to other microbits on a music board to create music collaboratively.  Give out strips of code and show a demo of the Microbit sound boxes.  Explain that there are four microbits on each musical box and they have been pre-coded to play certain musical when they receive a radio message from your Microbit glove.  Explain & play sound:-  Harmony  Melody  Rhythm  Over to you - you each need to pick a Microbit to send messages to.  Get coding and use your musical gloves to create a musical piece with your group which you will perform at the end of the day. | Strips of code/ give out boards |
| 3.10pm  15 mins | RESTROOMS (reminder: chaperone necessary) AFTERNOON SNACKS ENERGY BREAK |  |  |
| 3.25pm  30 Mins | WRAP UP (Red Hat Moderator) STUDENTS TO FILL OUT SURVEYS CAPTURE GROUP PHOTO |  |  |
| 3.55pm | Depart |  |  |
|  |  |  |  |