CCSS - Weekly Log

Jack Thorp

Introduction

The Coopers' Company and Coborn School operates a two week timetable.
My timetable:

	1st week (Thursday)	2nd week (Tuesday)
Hour1 - Lunchtime	Javascript Lunchtime Club	Javascript Lunchtime Club
Hour2 - Lesson	Scratch - Year 8 ICT	Lesson - Year 12 Computing

On first visit I discussed subjects and format of course with both Mrs Foreman and students. The above timetable was agreed upon where I would help out in Year 8 scratch lessons and teach interesting concepts from computer science to the year 12 class.

Week 1 - 22/01/2015

Javascript Lunchtime Club

Material Covered	Created first exercise sheet for class covering basics of javascript language. Introduced common concepts: type, conditionals, loops and functions through the use of alert command. Mostly to get them used to syntactical differences of basic constructs as I was aware they had experience with python and scratch.
Student Response	- a range of students (year 7 - year 12). Main difficulty was getting files in place. - Students only copying selected files rather than whole folders. Lack of understanding of file relationships. - students coming from python often omitting brackets.
Reflections	Many students - difficult to spread myself between them. Need to reinforce dev cycle on next exercise sheet. Exercise sheet had more than enough exercises. No student completed.

Scratch Lesson - Year 8

Material Covered	Lesson started with simple 'coordinates' task using images which seemed to be effective in engaging students. Observed lesson and spoke to some students about their work.
Student Response	
Reflections	- student backgrounds varied depending on whether they had done in primary or had been to programming club but most able to complete tasks by end of lesson.

Week 2 - 27/01/2015

Javascript Lunchtime Club

Material Covered	Second exercise sheet I created on drawing with canvas. Closely followed exercises found called code-maven. Provided link so students could follow this tutorial instead if wished.
Student Response	Success. Some completed sheet while many deviated and experimented by themselves.
Reflections	Syntax still an issue - try to find better editor such as notepad++ Students took up the tutorials with greater ease. Good to see creativity, students making different things as they learned and not just following script. New students were able to join on this tutorial which was nice. Provide sample drawings for students to inspect next week.

AS Lesson - Year 12

Material Covered	Big Data. Talked through slides which lasted about 3.4 of lesson.
Student Response	Seemed interested. Some students asked a lot of questions and same students attempted to answer most of mine.
Reflections	- no issues with disobedience, all listening - some students responded well to questions - No issues with slides or delivering - me talking too much. Not engaging enough. - need to ask a wider range of students to engage whole class (should learn names!). - idea to introduce yes no binary hands up questions

	- key points and summary test?

Week 3 - 5/02/2015

Javascript Lunchtime Club

Material Covered	Simple Canvas Game I picked up from coder dojo website. Background image for canvas and two images (hero and goblin) to move around game. Introduced the concepts of asynchronous loading and callback events. Gave a list of javascript learning resources students could use over half term the following week.
Student Response	- struggled with concepts of asynchronous loading in javascript. - smaller class so had time to explain concepts which was nice. - enjoyed idea of creating a game - some students just tried to copy code samples from sheet for speed rather than thinking about problem and reading description.
Reflections	- next week can provide examples to demonstrate ideas in game - didn't read example code in exercise sheer properly or follow instructions on sheet well (younger students) more direction and examples needed.

Scratch Lesson - Year 8

Material Covered	Lesson started with students designing flow chart for simple ball game. Main activity: Ball falls from top of screen and player has to click to reset before it touches bottom. Students implemented game in scratch by success lively adding features and then extension s to make harder. At end students explained extensions to rest of class.
Student Response	- students enjoyed explaining extensions. - students enjoyed freedom of their own variant.
Reflections	- I talked to more students was able to help and learn names. Better relationship and conversations as I picked up names.

Week 4 - 10/02/2015

Javascript Lunchtime Club

Material Covered	No new exercise sheets as no students had completed all up to date and many still working on canvas game. I went around class and helped students extend / build game. - explained concepts of objects
Student Response	- some students had been carrying on at home and working off USB - students all able to draw canvas and render images. Some got moving characters and game logic like chasing goblin.
Reflections	- good relationship with students as know each other by name. - think that I moved too fast with lessons and should have progressed slower. Some students deterred.

AS Lesson - Year 12

Material Covered	Lesson on Net Neutrality (as specifically requested by some students). Started lesson by introducing basic concepts and outlining background of net neutrality debate. - split into two groups (for and against) and me and Mrs foreman worked with groups on developing ideas for a class debate. - provided teacher and students with material sheet with pointer etc to help them. - Time after lesson so introduced concepts of open source with Linux foundation video.
Student Response	- learnt names at beginning of lesson, went around and asked. Found this to be a good way to engage students, I could ask questions of students specifically. - debate was a little dominated by some students but most took part in discussions before and after. - held a vote and everyone was for net neutrality - video was a good way to calm down after debate and everyone enjoyed it.

Reflections	- On whole students enjoyed a lot more. Everyone seemed to understand concepts well. Need to push little bit further to get last section of class more involved

Week 5 - 26/02/2015

Javascript Lunchtime Club

Material Covered	Fourth exercise sheet on DOM manipulation to make a simple game. Students wrote javascript to create a 3x3 table and style the background with colours. One cell had a hidden image that could be revealed upon click. This was game objective.
Student Response	Found it difficult to grasp concept of DOM and close relationship of javascript, browser and html. Older students understood better and appreciated the exercise.
Reflections	Too difficult. Better to reinforce other material.

Scratch Lesson - Year 8

Material Covered	Lesson involved making a plane move through scene in scratch.
Student Response	Students engaged as usual and I had little problem moving round the class discussing ideas and helping students.
Reflections	Not much to reflect on this week. Getting into rythm.

Week 6 - 12/03/2015

Javascript Lunchtime Club

Material Covered	Provided multiple implementations of the hero goblin canvas game that students were able to read and integrate into their own game. Became about understanding the code and integrating correctly than having to think of complex game logic independently.

Student Response	Enjoyed very much. Students were successful in extracting parts and integrating them into their own game. Some students carried on implementing their own changes however.
Reflections	Very sunny outside and apparently a lot going on in school. Not many students in class.

Scratch Lesson - Year 8

Material Covered	Healthy Eating Game moving on from homework. Mrs Foreman showed them where to find scratch games online they could borrow code from.
Student Response	Enjoyed making their own game. - some students wanted to borrow from example games and I helped them in understanding what they needed to extract.
Reflections	- Good lesson as I now have better relationship with most students. - Was able to freely interact and help all students to help them develop their games. - Could remember names which made them much more receptive. - Happy to see the teaching method I used in javascript class validated. (providing examples to borrow from)

Week 7 - 17/03/2015

Javascript Lunchtime Club

Material Covered	No new material sheets as few came previous week and no students had completed all assigned exercise. Gave advice on how to continue after I left. Learning resources and fun things to investigate such as vimadventures.
Student Response	Some students investigated properties like innerwidth and innerheght to change the size of their canvas.
Reflections	Students seemed to think they knew much more about programming and javascript and were glad to have come to lessons.

AS Lesson - Year 12

Material Covered	Lesson on bitcoin - went through prepared set of slides about bitcoin. Introduced contextual issues such as currencies then went on to explain how Bitcoin works. Kept lessons as interactive as possible by asking questions continuously and engaging students by asking them to research questions we had about bitcoins.
Student Response	A lot more relaxed. Wider range of students asking questions. Understood well until inherently difficult parts around proof of work.
Reflections	- using class names in examples helped engagment. - Trialed a more interactive role play exercise for bitcoin at home with family but decided against as too confusing. - Well timed, took just under whole lesson.