# School B Group 1 - 16 Jan 2017

Interviewer: Or any computer scientist you think you'd like.

Speaker 2: [inaudible 00:00:04]

Interviewer: [inaudible 00:00:05]. Okay.

Speaker 2: Alan Turing.

Interviewer: Okay.

Speaker 2: Steve Jobs.

Interviewer: How about you guys?

Male: Bill Gates.

Interviewer: Yeah. Okay. These are all really good answers.

Female: They're the only ones I know.

Interviewer: What was that?

Female: They're the only ones I know. Steve Jobs.

Interviewer: They're all absolutely important people. Anything else? Any other ones people have heard of or can think of? Okay.

 This is a question that's not on your sheet but what sort of person do you think is good at computing or good with computers?

Female: [crosstalk 00:00:40] maths and science.

Interviewer: Okay.

Female: George.

Interviewer: What do you mean by that?

Female: He's good at maths so ... Maths isn't fun.

Interviewer: Somebody who's good at maths. Any other ideas? Any other things about people who are good at computing?

Male: Not old, generally, relatively. They're not grandmas and granddads are not that good at technology.

Interviewer: Right. Do you think that would be the same, so that when your older you won't to be as good as the people who are younger?

Male: Yeah I think we might be because we grew up with technology, but they didn't grow up with it.

Interviewer: It's not about the age it's about growing up with it.

Male: Yeah.

Female: You need to be quite good at understanding stuff like [lock it 00:01:20]

Interviewer: Is that the same as maths?

Female: Not really. There's more problem solving.

Interviewer: The next question is what are computers for or how would you complete the sentence computers are for ...

Male: Everyone.

Interviewer: Okay.

Male: A lock.

Female: Computers are for use.

Interviewer: For use? What do you mean by that? For what sort of use?

Female: Being used and then the battery expires.

Male: You can use it for anything.

Interviewer: Okay.

Male: You can make [inaudible 00:02:13]

Interviewer: Yeah, okay. Okay. So the next are four, three statements, actually. Then just answer them as, say whether or not you agree with them or not and any comments you have.

 I'm the same person online as I am offline.

Female: Not exactly. [crosstalk 00:02:37]

Interviewer: No.

Female: Yeah. [crosstalk 00:02:37]

Male: If I am going to meet a new person or talk to somebody, you're not as casual as you are with your friends. I don't know.

Interviewer: You're not as casual online as you are off line?

Male: You're being more polite and stuff because you don't know them.

Interviewer: Right. You're more polite on line. What about you guys?

Male: I'm not awkward online. I'm cooler online.

Interviewer: You try to present yourself as cooler.

Male: Well, not exactly.

Interviewer: What about you guys? What do think?

Female: Just the same, to be honest.

Male: Yeah, I'm just the same, to be honest.

Male: You're just the same.

Female: If you meet someone new in real life, you don't just start talking to them like your mate. It's the same, the exact same online.

Interviewer: Yeah?

Female: You need to watch what you say online, because people forget stuff that you say face to face, but they can scroll back on conversations online.

Interviewer: That changes what you say?

Female: Yeah, because then they can hold stuff against you.

Interviewer: That's sort of the next one. I say things online that I wouldn't say offline. Do you agree or disagree with that?

Female: Yeah.

Interviewer: Yes, you say things offline that you wouldn't say online? Or you say things online that you wouldn't say offline?

Female: Oh. No.

Interviewer: Or other way around.

Female: Other way around, I would because I never give people my information out.

Interviewer: What about you guys?

Female: Same.

Interviewer: Same? You say things online, you don't say as much online, and there's things that you would say offline that you wouldn't say online?

Female: Yeah. [inaudible 00:04:00]

Interviewer: What was that?

Female: You don't remember who you're talking to. Say you were giving your address to a friend. You wouldn't just give the wrong address.

Interviewer: Do you think you say different sorts of things when you're online?

Male: When you're online you talk about like [inaudible 00:04:19] stuff.

Interviewer: Right. Okay. What do you mean by that?

Male: Let's say you might be playing a video game or you're helping each other doing homework or something.

Interviewer: Okay. The last one to sort of agree or disagree with is, how much a person knows about computers changes how they interact with other people online. Do you think that's true or false, or you're not sure?

Female: I think it really doesn't.

Male: No, I don't think it makes a difference.

Interviewer: You don't think it matters? It feels so similar that it doesn't matter if you know what's going on? That's fine. Okay.

 In the next ten years, what do you think the digital world will look like? You can interpret that however you want.

Male: Time travel.

Interviewer: Time travel, okay.

Male: [inaudible 00:05:14] easier.

Interviewer: What do you mean by that?

Male: Just general stuff. You're lazy-field.

Interviewer: Lazy-field.

Female: We'll be able to have stuff like, in the book I'm reading there's this huge computer system that picks up stuff from every device in the house, so this girl can get a message from her computer saying her mom's about to walk in her room, so she can hide stuff.

 I think you should have stuff that yeah, it will spy on people in the house. It will talk to you and tell you that everything's going on everywhere.

Male: What if people are spying on you?

Interviewer: What's the book called?

Male: The Last Beginning.

Interviewer: Okay, I don't know that.

Male: I'd say every day tasks might be made easier by something like AI or something.

Interviewer: What sort of everyday tasks?

Male: Washing up and cleaning the house. Stuff like that.

Interviewer: You'll have a robot that is a dishwasher?

Male: Maybe.

Female: That's be so helpful. I do that every time when I get home, I have to do the dishwasher.

Male: You have to do the dishwasher, so a robot that actually empties the dishwasher.

Female: Yeah, that would be so helpful.

Male: And loads the dishwasher, and does the cleaning. That sort of stuff.

Male: Yeah, and it could all be run by ...

Male: I think phones and that will be fully waterproof, so they can actually take them in water.

Male: Okay. Some phones are pretty waterproof already.

Male: Everything, like [tower 00:06:47] will probably become a lot smaller. I know in [inaudible 00:06:52] computers, they don't even have them any more.

Interviewer: Okay. What do you think will be possible in computing terms in the future that's not possible now. Sorry, I'm having trouble reading my own question. Anything? Not sure?

Female: Maybe they'll be able to access more data. You know what I mean?

Interviewer: No, I don't know what you mean.

Female: I don't know. I mean [inaudible 00:07:29]. [inaudible 00:07:30] programming so you can programme robots more accurately.

Interviewer: Okay.

Female: [inaudible 00:07:36] you can actually have a response for a few things, [inaudible 00:07:38] and stuff.

Interviewer: Mm-hmm (affirmative) What about, what do you guys think?

Male: I was just thinking about AI and stuff, basically talking to the robots and stuff.

Interviewer: Yeah, so talking to robots.

Male: Yeah, they have advanced [inaudible 00:07:57]

Interviewer: Right, okay.

Male: I think you might have less privacy because you might have new technology that spies on you. I don't know. I just think we've got less privacy.

Interviewer: You think you'll have less privacy than you do now?

Male: Yeah. [crosstalk 00:08:17]

Female: In [crosstalk 00:08:17] and stuff that it's like in the future, TVs and screens and stuff, I just see two holograms are shot up from this tiny pod thing, so it films, like in loads of films, in [inaudible 00:08:27] and The Hunger Games and films like that, that's what they depict the future as, which I think is kind of weird.

Interviewer: Having holograms?

Female: Yeah, it's like [crosstalk 00:08:37] to watch TV and see what's behind you at the same time.

Interviewer: Yeah. You don't think people will do that?

Female: No.

Interviewer: No.

Male: Why wouldn't they? [crosstalk 00:08:46]

Interviewer: Do you think films represent a good, accurate vision of what the future will look like?

Female: They're still like ...

Male: [inaudible 00:09:00]

Female: Yeah, most are just [inaudible 00:09:01] so ... it's like, if that actually happens, [crosstalk 00:09:07] and in America, as well. We don't know what happens here, where other places it [inaudible 00:09;14]

Interviewer: It can be quite different here. Okay.

Male: This isn't to do with technology, but I think most people in the future are probably wearing glasses all the time, because everybody's using technology.

Interviewer: Oh, you think that their eyes will be going.

Male: Yeah, because I need glasses.

Male: You might not need glasses though, because they mights invent advanced laser eye surgery that ...

Female: Our eyes are just going to [crosstalk 00:09:36]

Male: You'll need eye corrections.

Interviewer: I mean it could be that everyone's wearing a VR type headset all the time.

Male: [crosstalk 00:09:45]

Interviewer: When you're grown up and you're working, how much time do you think that you'll spend using computers and digital devices?

Male: All the time. [crosstalk 00:10:04]

Interviewer: More than ...

Female: The same amount I do now.

Interviewer: Same among, okay.

Female: It depends on the job. Say you were a teacher, you'd use the computer quite a lot because you'd have to do your [inaudible 00:10:12] and that, but if you were I don't now, a physical trainer person, you wouldn't really use it that much.

Interviewer: Okay. Can we take a break, just a pause for a second and can each of you say what it is you think you want to do, if you know, when you're older. What do you want?

Female: I don't know. Something to do with maths and science and computers. I'm not really sure, but that sort of area.

Interviewer: What about you guys?

Male: Something to do with computers, I suppose.

Interviewer: You suppose?

Male: Yeah, probably. I don't really know.

Interviewer: Anything? Anything specific?

Male: No.

Interviewer: Okay.

Female: I want to be a potter.

Interviewer: A what?

Female: A potter.

Interviewer: A potter, okay.

Female: A primary school teacher.

Interviewer: Okay. Also a primary school teacher, brilliant. I just remembered. I forgot to get you guys to say your names, which is why I'm struggling to remember them. Can each of you say your name, as well and then I can try to actually ...

Male: I'm G–

Female: [inaudible 00:11:16]

Interviewer: Okay.

Male: I'm J–

Speaker 2: L–

Female: F–

Speaker 2: I'm C–

Interviewer: C–

Speaker 2: G–

Interviewer: G–, great. Okay, I should have done that at the beginning and I forgot. Okay. The last set of group discussion questions, and then we can move on to the interview questions.

 Do you think, this is probably a hard question, so let me know if you don't understand it. Do you think that your computer lessons require you to change in any way? As a person or how you think or how you behave, and if yes, in what way?

Female: It's made me a bit more logical.

Interviewer: Okay. What do you mean by that?

Female: I find it easier to solve problems that aren't in the computer lesson, but in maths and stuff.

Interviewer: You find it easier to solve problems in computers.

Female: Yeah.

Interviewer: Because you're thinking in a more logical way.

Female: Yeah.

Interviewer: Anybody else? That's a really good answer.

Female: When I use the computer I think about it more, like I think about what's behind it.

Interviewer: Okay. Great. Anybody else?

Female: I didn't really understand the question.

Interviewer: Okay. When you're using computers in school, or since you've had computing lessons for the last couple of years, does that change how you act or behave or how you think about yourself, knowing a bit more about how the computers work?

Female: No.

Interviewer: No? What about you guys?

Male: It makes you probably think a lot more mentally about solving problems on a computer.

Interviewer: Okay.

Male: Just intensifying your concentration looking at something for a long time.

Interviewer: You think about things, it changes how you think about solving a problem when you're using a computer.

Male: Yeah.

Interviewer: Okay, that's great. What do you think the main purpose of learning about computing in school is?

Male: I guess it can be like in life, [inaudible 00:13:34] of places and things you need to do, like you have to do computing in them.

Interviewer: Do you mean in life in general or in your job?

Female: Yeah. Quite a lot of jobs use computers, so learning how to do it now sets you up for the future.

Interviewer: Okay.

Male: This is said to us before. Most jobs won't let you have that job if you don't have computer [inaudible 00:14:00]

Interviewer: Are there specific skills you think you need?

Male: [inaudible 00:14:06]

Interviewer: Do you feel learning about programming or learning about [photography 00:14:11] or anything like that is specifically helpful, or do you think just learning general stuff about computers is helpful?

Female: General.

Male: When you're using what's behind it, like what kind of, what it's all about and how to use it, that's worth a lot more.

Interviewer: Okay, how to use it. Do you make a distinction between how it works and how to use it, or do you see those two as the same thing?

Male: Yeah, they're sort of the same thing if you get to understand that level.

Interviewer: Okay. What do you think would make your computing lesson more engaging, more exciting? Anything? We can move on. We can leave that question out for now.

Female: Maybe understanding it a bit more.

Interviewer: Understanding. Okay.

Female: I think some teachers go through everything and then you can't understand it, really.

Interviewer: Okay, so you feel like you don't actually understand things as much as you'd like to sometimes?

Female: Yeah.

Speaker 2: Yeah, last semester we were learning about bar codes and we learned about the last digit and why it was high and stuff. It really rushed by and we were told just go and get on with solving some others and it was really hard.

Interviewer: Right.

Female: I think during the interactive stuff, we'd talk, we'd sit down for a bit and listen and then we just kind of do I don't know, we just [crosstalk 00:15:45]

Interviewer: What's been your favourite thing you've done in computing so far?

Female: I learned about Lego robots.

Interviewer: Lego robots.

Female: They're awesome.

Interviewer: Robots are pretty awesome in general. Anything else? Anybody else?

Male: I just like when you code stuff, but then it's like, with the robots you can see what your code is doing.

Male: Oh yeah. You can see the results.

Female: Yeah, if you code something you know it.

Interviewer: You know right away if it's working because it moves.

Female: Something we did last year is Scratch and BYOB programming. They were really fun, because it's more than writing out a code. It's more of a ...

Male: Graphical.

Female: Yeah, it's more graphical. It was really fun.

Interviewer: You prefer something like Scratch to something like, I don't know, Python. I don't know if you guys, have you done Python?

Male: Yeah.

Female: Just typing out line after line after line is, with Scratch it's easier to see where you've gone wrong.

Interviewer: Right.

Male: Yeah, something that Python could make maybe more engaging is if it was more colourful.

Interviewer: More colourful, okay.

Male: Yeah, [inaudible 00:16:46] Scratch. And more graphical. You can see exactly what you're doing when you click the playback.

Female: And Scratch has that cute little cat.

Interviewer: Python would be better if it had a cute little cat?

Female: Yeah.

Speaker 2: And cool colours.

Interviewer: And cool colours. Right. We're going to move on to the next set of questions, so the next page on your sheets.

 Does anybody have any questions for me so far? Any comments, anything like that? These are, this is more of the proper interview, so that was more of a group discussion. There isn't a huge amount of difference. It's just more distinction for me about how I do this review. If you don't understand any of the questions, let me know.

 What we will probably do is skip through so we may not stick to the order, so you may notice that I skip around a little bit. That's okay. If you think of something and you're not sure if it relates or not, feel free to pitch in. There's no right answers. It's all about just thinking about these things, as we've said. Okay?

 We talked about this a little bit already, but do you think that your computing lessons require you to think in a different way, as opposed to your other lessons, or maybe similar to your others as well?

 You said yes?

Speaker 2: I want to do more [cascading 00:18:11].

Interviewer: What? Say it again. I didn't hear you.

Speaker 2: I said I want to do more so it's not like when [inaudible 00:18:16]. They're [inaudible 00:18:19]

Interviewer: Do you think that something about computers that you have to be told what to do, or do you think that's how the lessons are?

Speaker 5: Yeah you just, there's what we did last year, there's not as much room for creating [inaudible 00:18:31].

Interviewer: Okay.

Male: It's just a lot of revision and you have to really know everything, because sometimes if you don't know the basics enough, that you can't get further on. You have to know everything.

Interviewer: You feel like you have to know it all at once?

Male: Yeah.

Female: Everything's set, whereas in English you can make kind of it yeah, be creative. Whereas in IT, everything's set for you, that you have to learn. You can't change it.

Interviewer: Okay, I think that makes sense. Have any of you heard the term computational thinking?

Male: No.

Interviewer: No. Taking a guess, what do you think it might mean or what would it mean to you?

Female: Thinking in kind of computer code.

Interviewer: Okay, thinking in computer code. Any other guess?

Female: Like logical thinking.

Interviewer: Okay. Any other ideas about what computational thinking is? It's sometimes talked about as a way of thinking with computers or thinking about computers. I don't know if that helps at all.

 How many of you have your own computer at home or how many computers do you have in your house at home?

Female: One.

Interviewer: You have one computer in your home? I'm assuming that's for the whole family, or is that yours? For the whole family.

Male: We've got three.

Interviewer: You, L–

Speaker 2: My mom's got her own laptop and [inaudible 00:20:09] but me and my brother have each got a [inaudible 00:20:11].

Interviewer: Okay, so quite a few computers.

Speaker 2: Yeah, I'm the one with the Macs.

Interviewer: So you've got a laptop and a tablet?

Speaker 2: Yeah.

Interviewer: Okay. Anybody else?

Male: May I include an Ipad?

Interviewer: Yeah, sure. If you want.

Male: I have an Ipad.

Interviewer: You have an Ipad.

Male: I've got my own computer. It's quite old, but it's my own but I've got a phone and WiFi.

Interviewer: Okay.

Male: Yeah.

Interviewer: What about you two, J– and [inaudible 00;30:44]. And an XBOX? Okay.

Male: I have just an Ipad, a laptop and a computer, a laptop.

Interviewer: All right. Do you think, what?

Male: If you think about it, every device is a computer if you think about it.

Interviewer: Okay.

Male: Most of them, so phone, computer, tablet, all that stuff.

Interviewer: Yeah, anything you think is a computer but you think that most people wouldn't think of as a computer?

Male: Yeah.

Female: [inaudible 00:21:06] computer.

Interviewer: What was that?

Female: Can it take her place, computer?

Interviewer: Yeah. Kind of.

Female: I'd say a clock is technically, like ...

Interviewer: Sort of.

Female: It's like a display that you ...

Interviewer: The digital clock would be.

Female: Yeah.

Interviewer: The digital clock. More and more devices, like even toasters, have a bit of circuitry in them, so they could be computer. Things like cards now have two or three computers in that at least, often. But it does depend on how you think about it.

 I mean, anybody want to put forward a general definition of what we could call, a re-definition of what a computer is?

Female: Something that's programmed.

Interviewer: Okay, something that's programmed or programmable. That's a really good one. Any other?

Male: Something that's programmed, wired, that people can use for their benefit.

Interviewer: Okay, so something that's programmable and wired and can be used for the benefit of someone. Okay, any other ideas?

Male: Something that stores information, it could be parts of the computer.

Interviewer: Okay, that's also a good, I think somewhere in between those is definitely a really good definition. Any other ideas for what is a computer? Okay, I mean, so because by your definition, a filing cabinet would be a computer, and I think that's probably not quite right, so probably there's something about how we store information.

 On the other hand, early computers, like [Babitch's 00:22:40] computers were mechanical, so storing of course the information, there's something about that. Okay, any other thoughts on what a computer is?

Speaker 2: Maybe something that stores information that's easily accessible, that you can get a lot of things from it, maybe.

Interviewer: Right, that's not bad. Okay. How much time do you feel that you spend using computers or digital devices on an average day? And what do you do?

Speaker 2: It's a bit disgraceful.

Interviewer: What do you mean, a bit disgraceful?

Speaker 2: As in way too much.

Interviewer: Way too much.

Female: Yeah, really every minute.

Interviewer: Right? So is that from the time you get home, to the time you go to bed?

Female: Yeah, I leave the school and get my headphones out and then I have it on charge at night with my headphones in, so I'm using it literally every single minute.

Interviewer: Okay.

Male: I mean with like, yeah, I probably use about six hours every day. [crosstalk 00:24:53] On my phone, I'm just on my phone a lot.

Female: Yeah, on the weekends ...

Male: The computer's the homework.

Female: On the weekends, [crosstalk 00:24:01]

Interviewer: You said, L–, that you do listen to music. What else do you guys do on your devices? How about you too? Anything else?

Female: Homework.

Interviewer: Homework.

Male: Obviously you're going to say homework.

Speaker 5: Play games.

Speaker 2: Snap chat.

Male: Social media.

Interviewer: Do you think it changes, like there's different things that count differently towards using a computer, so listening to audio books. You could do that through older, non-computational devices. Does that matter? Does it change because you're using a computer to do it?

Male: It's easier to be distracted if you're doing something like that on the computer, because then you can do so much other stuff on it. Or you might get stuck.

Interviewer: I know exactly what you mean. Definitely. Any other ideas about that?

Speaker 2: Well, you said about listening to an audio book. You could do it on the CD player or something, but your phone is in our pocket, so you can just carry it around with you.

Interviewer: You can store a lot more and you can have it a lot more.

Speaker 2: You can read books on it.

Interviewer: Yeah. Okay. Do you guys use social media? Do you know what social media is?

Speaker 2: Yeah.

Interviewer: Which social media do you use?

Speaker 2: Snap chat.

Female: Instagram. [crosstalk 00:25:20]

Speaker 2: Facebook.

Interviewer: How much time do you spend using social media?

Speaker 2: Not much. A lot.

Female: Half an hour every day.

Interviewer: Half an hour, okay. Not a huge amount compared to how much time you're on your computer.

Female: I tend to use less than half an hour a day.

Interviewer: Not that much? Do any of you consider yourself to be part of an online community, like a guild or a forum, or groups like that? Or do any of you have friends who are only friends online, that you don't know in real life at all?

Female: Yeah.

Male: Yeah.

Interviewer: What do you mean? Give me examples? People that you've probably only met once or twice in real life?

Speaker 2: She lives in San Francisco.

Interviewer: Okay.

Speaker 2: We just met [inaudible 00:26:12]

Interviewer: Cool. Anybody else?

Male: I used to have a, because I used to play a lot of video games online, laptop and XBOX, especially on XBOX. You just talk to a lot of random people, and I think it's okay, as long as you don't, as long as you [inaudible 00:26:29]. I used to just talk to random people.

Interviewer: Yeah.

Speaker 2: I'm in groups, charity groups, so there's lots of other people who are [inaudible 00:26:38] I talk to.

Interviewer: Great, yeah.

Speaker 2: I've never met most of them.

Interviewer: They're people who you, broadly speaking, you'd say they are your friends.

Speaker 2: Kind of, yeah.

Interviewer: Okay, George, anyone else? Or not G–, J–.

Speaker 5: I know someone from Kent. He has a Kent accent.

Interviewer: Just as a random survey, you said you know someone from San Francisco. Is that the farthest away we know anybody from in this little group?

Female: I know people from the Philippines. I have no idea where that is in relation to San Francisco.

Interviewer: It's kind of the other direction. It's probably the same distance.

Male: I think it's good, though. I think I used to talk with people from all over the place, like other countries, but it's good though, because I used to have a friend from France and he would speak French, but I practised my French. It was good.

Interviewer: Yeah. You said you were part of charity groups. Is anybody else part of specific kind of communities, where you'd say I'm an X, Y or Zed where you're part of a community that is mainly an online thing? You said you played game, George. Were you ever part of a guild or anything like that in the games you play?

Speaker 5: I mean, we had a little group, where like, all [inaudible 00:27:55] at video games and we used to just ... Yeah.

Interviewer: Okay.

Speaker 5: We had a little chat and that was it.

Interviewer: Yeah. L–?

Female: [inaudible 00:28:07] with one girl.

Interviewer: Yeah? Okay. Thinking about the future for a little bit, when you're an adult, how important do you think it will be to understand how computers and software work, and this is something we talked about a little bit earlier, as well.

Male: It's really quite important, because the world's moving towards more of a digital age, so it's quite important to understand that, just how to use stuff and how to connect with other people.

Interviewer: Do you think it will change your ability to use it, or do you think it will just be helpful to know how things work?

Male: It will probably just be helpful.

Interviewer: Okay. Anybody else have thoughts on that? Okay.

 How do you think you will use computers in the future, whether at work or at home or for your hobbies or for sports or anything like that?

Speaker 2: I think they'll still be a massive [inaudible 00:29:05] one day.

Interviewer: Is there anything specific you think you'll do on computers, or you just imagine that it will be a part of your ... ? Do you think it will be the same as now, when you're socialising, or do you think it will be different things?

Speaker 2: I think it will be a bit different. [crosstalk 00:29:23]. They technology will get better and maybe they'll speak to each others.

Interviewer: They'll just speak to their phones. Anybody else? Any other thoughts?

Female: I want to have a time machine.

Interviewer: You want to have a time machine? Do you want to go forward or backward?

Female: Backward.

Interviewer: To where? To when?

Female: Uh ... I'm not sure. I just want to go back in time.

Interviewer: Okay, fair enough. That sounds good. Anybody else have any ideas, any thoughts on how they're going to use computers in the future, that will be either the same or different to how you use them?

Female: For work.

Interviewer: For work?

Female: Yeah.

Interviewer: What would you do at work? What skills do you think you need for work?

Female: Just words and that.

Interviewer: Okay. Do you feel like you're getting those skills now?

Female: Well, yeah. Well, I guess you learn them in primary.

Interviewer: Okay. Any other thoughts?

Male: I think almost every activity will become computerised, in some way.

Interviewer: Right, in some way.

Male: Yeah.

Interviewer: You're not quite sure how.

Male: [crosstalk 00:30:29]

Interviewer: Yeah?

Male: Because everything's just going into computers and you can't do anything off your computer.

Speaker 2: Technically, even sports machines and that, treadmills and that, they're computer based.

Interviewer: Some of them. Do you think it's advancing too quickly, or do you think that you can keep up?

Speaker 2: I mean, I never kept up.

Interviewer: You never kept up. Okay. In five years time, thinking ahead, what do you think you will remember or use from what you've learned in your computing lessons? That's kind of over the last four or five years, three or four years?

Male: I'll probably remember the code from coding softwares.

Interviewer: Okay.

Female: I'll know how to use Scratch, because that's really easy.

Interviewer: Okay.

Female: We did quite a lot on [inaudible 00:31:16] and major basic, so I'll probably remember that as well.

Interviewer: Okay. Do you think you'll use it all, or you'll just remember it?

Female: I'm not sure.

Interviewer: Okay.

Female: My sister uses it so I might [crosstalk 00:31:27].

Interviewer: You haven't learned anything? I won't tell. Don't worry.

Male: Microsoft Office stuff. You'll use that all the time in the future. Stuff like that. Always.

Interviewer: Always. You'll always be doing ...

Male: Yeah, like certain, my mom uses Excel to do how much money she's making, spending, stuff like that.

Interviewer: Do you feel like you're learning enough of those skills now?

Male: We did in primary school.

Female: Yeah, we did a lot in primary.

Male: We don't do that much now.

Interviewer: Is there anything that you wish you were learning in your computing lessons that you're not learning?

Male: Maybe some of the codes and shortcuts in Excel, like how to [type 00:32:16].

Female: I want to do the robots again.

Interviewer: You want to do the robots again?

Male: Useful stuff.

Interviewer: Useful stuff. Robots are useful stuff then?

Male: Yeah.

Interviewer: Yeah.

Male: In the future.

Interviewer: Everyone will have their own.

Male: I don't think the stuff like encryption, some of the stuff is very, I don't think I'll every use it in the future.

Interviewer: You don't thing you'll use any encryption software, like cyber security?

Male: No.

Female: I don't see how any of us here will end up in a position where we will need to manually work out what the last digit of a bar code should be.

Interviewer: Don't you find it interesting, though?

Female: It was insanely boring. It was mind numbing.

Interviewer: You don't think that when you go into a shop, you look at a bar code, you'd look at it differently now?

Female: No.

Interviewer: No.

Male: I don't even look at the bar code.

Interviewer: You don't even look at the bar code.

Speaker 2: I see it as numbers, as well as I see it as tiny lines.

Interviewer: On a more serious note, don't you think that knowing a bit about encryption and security and cyber security is useful and important, or do you think that you're not learning that enough?

Male: I mean I think it's ...

Interviewer: What if you want to send a secure message to someone?

Male: I mean, you'd make up your own code then.

Interviewer: Okay.

Female: It's possible. People know about it so they can work on it.

Interviewer: We've got a range of people who feel differently about computing. If you don't think you're very good at computing, what do you think you could do to improve and get better at it?

Female: [crosstalk 00:33:50]

Male: Just experience.

Interviewer: Just experience.

Male: Maybe if you run code and if you teach yourself some code and run it then you'd probably get more into it.

Interviewer: Okay. Do you think that twill change you as a person at all? Do you think you have to be a more computer-y person? Or do you think it will ... ?

Male: I think you've just got to have the patience and interest in the [inaudible 00:34:15]

Interviewer: Okay. Can you tell me a bit about how you think your computing work is assessed and graded and marked? What do you get good marks for, what do you get poor marks for?

Female: What do learn. You get a [inaudible 00:34:38] in what you've learned. They give you a question and you answer the question. There isn't much to do with actually trying to code it. It's just like, the question.

Interviewer: Do you feel like you can see the connexion between the questions and the coding, or what you do in lessons, or do you feel like sometimes it's not clear?

Female: No. I think the logic. I'm not very good at quite a lot of the other stuff.

Interviewer: Do you think the logic is more important, or do you think the other stuff is more important? Or are you not sure?

Female: I think the logic is important in life, but if you want to have ea career with computing, then it's just as important as the [inaudible 00:35:20]

Interviewer: Right, okay.

Male: I often do bad in tests where there's a time limit, because I can do the stuff it's telling me to do. I just need a little more time to do it.

Interviewer: Yeah, I know what you mean. Do you feel like it's okay, is it better to, when you're coding something for example, or you're doing something in computing, is it better to get it right the first time, or is it better to make a mistake, and then recognise the mistake and fix it?

Male: A little bit of both. If you get it right and you realise that you're right, then you can use that again. If you get it wrong, but if you keep on thinking that it's right, the thing that you got wrong, then that will just completely mess up the thing you're trying to get right.

Interviewer: Yeah.

Speaker 2: Just your basics. If you make a mistake, it comes in a bar, or a box and says, "invalid", so you know what you've done wrong and it's highlighted so you can learn from that, but if it doesn't tell you, then you could be stuck for ages trying to fix something you don't' know.

Interviewer: Did you find it harder when you were doing Python that didn't do that as much?

Speaker 2: Yeah.

Interviewer: Because it just says, I think Python just gives you an error. It doesn't tell you as much what it is.

Speaker 2: Yeah.

Interviewer: Or it just doesn't work. Any other thoughts on that? Okay.

 In what way would you say learning about computing has changed your choices for the future? Has it changed what you want to do in life? Has it maybe just changed how you use computers? Do you feel like you just have more choices, less choices?

 For example, G–, you said you wanted to do something with computers. Do you think you would still want to do that if you hadn't had computing lessons, or do you think you're more interested now?

Male: I don't know.

Interviewer: You don't know. What about you guys?

Female: I've always kind of wanted to be an artist, but I didn't really know what I wanted to do for my final option, so I've taken computer science because that's better on a CV than quite a lot of the other stuff.

Interviewer: Okay, so even though you want to be an artist, you've kind of gone for computer science?

Female: Yeah.

Interviewer: Because you think it will give you more options than others? What sort of options do you think it will give you?

Female: In quite a lot of universities you need an IT degree to go into the best courses.

Interviewer: Yeah. It gives you more options about universities, even though you want to be an artist.

Female: Yeah.

Interviewer: Okay. Anybody else? No? Yes? Any more choices, less choices?

Speaker 2: I think it gives you less choices in a way, because if you don't take it because you decide not to take computing, you're just told that you need it for every job, but just ...

Female: If it was that important, they wouldn't have taken it out of, you would have to do it. If it was really, really important, they wouldn't have taken it out.

Male: Because other schools you have to do it, like it's mandatory. Is that the right word? Yeah. Our school doesn't do it as, so you don't have to do it.

Female: It depends what class work you're on.

Interviewer: Say that again?

Female: It depends what classwork you're on. [inaudible 00:38:55], so some people have an option between certain things and one of them in computer science. The pathway I'm on, that just went into their other classroom subjects.

Interviewer: Do yo think and just sort of as a general, instinct reaction, do you think computer science should be required for everyone? It should be compulsory, or do you think it's better that it's an option?

Female: That it's an option.

Male: I think it should be compulsory, because then you can still take what you like, then still have the subject.

Interviewer: You find it quite hard because you hear what he says and she says you're going to need it no matter what you do, but if you choose it, it's going to take away from one of the other options that you'd like to follow. Okay.

Female: Yeah. If it was mandatory to get one last option, because we [crosstalk 00:39:46]. PD is mandatory.

Male: I think it should be compulsory because I think most jobs in the future will just be computerised.

Interviewer: You think you'll need it for most jobs. It should be compulsory. Do you think it's more or less important than maths or physics?

Male: [inaudible 00:40:06]

Female: It's important but my point is like, I don't like it so if it's compulsory, yeah I'd be fine taking it, but because I don't have to take it, I won't take it.

Interviewer: You won't take it because you don't like it and you'd prefer to spend your time doing something else.

Female: Yeah, it might be useful but I just don't ...

Interviewer: You don't think it's going to be that useful for you, at the end of the day.

Female: No.

Male: I think it should be compulsory, because online you're going to be doing everything, like bills and stuff, you'd have to always look at that and just for every day life, things we perform.

Interviewer: Have any of you heard the term "internet of things"? Have you come across that term at all? Okay. It's what we were talking about earlier, where more and more devices like toasters and fridges have computers in them and are connected to the internet.

 I think it's like what you were saying, is that more and more daily activities, like paying bills, will require a degree of computer knowledge to be able to do them. Do people agree with that or disagree with that idea, that you'll need knowledge about computers to do more and more basic things?

Speaker 2: I agree with that.

Interviewer: You agree. But what?

Speaker 2: To an extent.

Interviewer: To an extent. You agree with it but you don't like it?

Speaker 2: No. I feel like you have to be able to work with computers, but I don't think you'll have to do all the coding.

Interviewer: Do you think that knowing a bit about coding, for example, will help you fix it when it breaks?

Speaker 2: Probably, but I'd probably just take it somewhere to get fixed.

Interviewer: You'd just go find someone, go call in the programmer to come and fix it.

Male: It's like a shelf. You built an office and get your shelf fixed. Or you fix it yourself.

Interviewer: Yeah? You see it as, you don't actually need to know how to put up a shelf and fix your car, but if you do, it's a bit helpful, but if you don't, you just go and get somebody else to do it for you.

Louise: It's like your computer, right? Switch it on, switch it off. That doesn't work. You long press the on button. That doesn't work. You long press the F9 button. They you press the re-start button. Then you try doing all that again when it's charging, then you leave it for a day and then do it all again, then do it all again, and then bring out the hammer.

Interviewer: Louise, where did you learn that sequence?

Louise: It's a logical sequence with a [inaudible 00:42:53], but if you kind of skip the hammer part. You also need to tell her that you're going to take it to the [inaudible 00:42:58].

Female: Yeah, but then you'd have to buy a whole new one.

Louise: Yeah. You just say, you say to your washing machine, "You're going to the dump", and it will start to work again.

Male: Which has never happened, ever.

Louise: It works sometimes.

Interviewer: Okay. This is almost over, so the last question, is there anything that you think should be taught in computing, that you think you should learn about computings, but isn't covered in your computer lessons here?

Male: I think just basic life skills, like how to [inaudible 00:43:37] and I can't think of examples but I used to ...

Interviewer: Sort of digital life skills.

Male: Yeah, just general life skills. How to ...

Louise: Surveys and that.

Male: Insurance and ...

Louise: How to kill viruses on your computer.

Male: L–, just tell the virus to go away. Everything just goes away.

Female: I think you should do the basic coding.

Male: Yeah, insurance, papers, kill viruses.

Interviewer: Okay, but you think that should be taught in computing?

Male: Just general life skills that you'll need in the future.

Interviewer: Okay. Well that, I'm sorry I took up your entire lesson. [crosstalk 00:44:14]. You don't mind. Was it more or less interesting than doing [inaudible 00:44:20]

Male: More interesting.

Interviewer: Okay. Well, thank you very much for your time, and I really appreciate it.