



Computer Science

Case Study



Name: Harry Wake

Age: 15

School: Marple Hall School



Studying Computer Science

Why did you choose to study Computer Science?

I've been interested in computing for a long time now. I'd been making games and building websites for a while before it was time to choose my GCSEs so it was an easy decision to pick a subject I already had an interest in.

What do you enjoy about studying Computer Science?

I enjoy the theory and finding out about how computers work. Outside of the classroom, I enjoy a wide variety of things related to coding, design and technology. Recently I've been learning about designing website wireframes and reading about the latest programming languages and technologies.

What skills has studying Computer Science given you? How will you use these in your life beyond school?

The GCSE computer science course covers the basics of programming, and also helps with problem solving and computational thinking.

Do you think coding/ programming is an important skill to learn for the future? Why?

Yes, I think coding is a useful skill for everyone to learn – it is an interesting and creative topic that teaches you how to think, and there are lots of job opportunities for those who want to take it further.

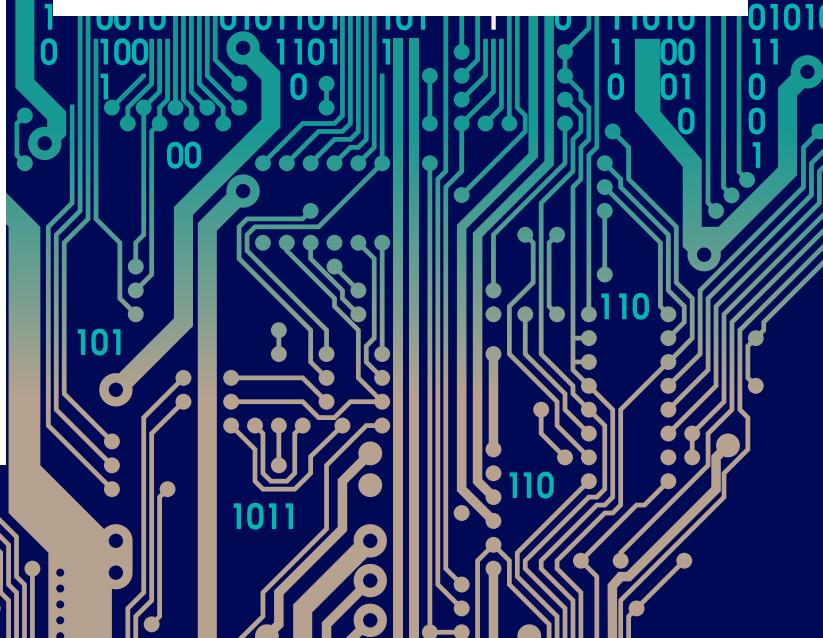
Onscreen assessment

How are you preparing for the onscreen assessment and how does doing onscreen assessment compare with taking paper-based assessments?

On-screen programming assessment seems like a really obvious thing to do. Given that computers are where you learn and practice coding, it makes sense that's also where you'd be assessed. This means that being taught on-screen Python is good preparation for the assessment. Python is a great language to use for several reasons. It's free, it's a widely used language (it's used at companies such as Google, Facebook, Netflix and Amazon), it's highly in demand, and there's a great community to get involved with.

In your opinion, should onscreen exams be something we explore more in future?

Yes, I think it's a good idea and a great step forward. It's a lot closer to a real-world scenario working as a software developer and tests your problem-solving skills.





Where can Computer Science take you in the future?



You and your cousin, Anna have been working on a project that you have called '**Mission Encodeable**'. Please tell us about more about this...

For the last year, Anna and I have been creating **Mission Encodeable**, a website that teaches people to code in Python. We wanted to offer a fun introduction to young people, and make it more enjoyable for our friends. We did this by looking at what we would have wanted when we taught ourselves code.

Mission Encodeable has a number of levels and offers lots of quizzes, interactive coding exercises, and projects. The website is presented in levels that begin with the key programming fundamentals and progress towards more advanced and powerful concepts. Each level has a variety of interactive coding exercises so that users can apply their knowledge and see what needs recapping. There are also two projects on each level, such as games like Hangman and Mad Libs. These are presented as a guided class project that includes instructions, and a challenge project which users make based on the coding they've learnt in the level.

How has studying Computer Science at school helped you to develop the skills you need to work on '**Mission Encodeable**'?

Making **Mission Encodeable** involved us learning about Python, website development, design, marketing and planning and how we could teach this to others.

The Computer Science course helped with Python and how to communicate our ideas. We've used tutorials, chatted to lots of people, and we were lucky enough to have some help with the design of our branding from Anna's parents.

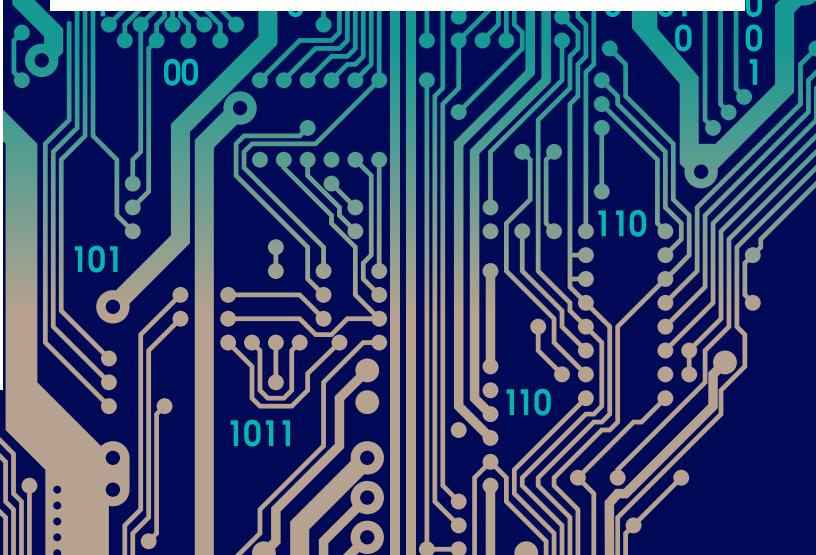
We hope that **Mission Encodeable** will encourage people to start learning to code, and that those already studying coding will find it a fun way of developing their skills.

What reaction have you had to '**Mission Encodeable**' from young people so far?

So far, they have been really positive, people have really enjoyed completing the projects and we get lots of compliments about the website's design.

What's next for '**Mission Encodeable**'?

We're already working on the next levels. At the same time, we're gathering feedback on what we've done so far so that we can iterate and improve upon it.



MISSION ENCODEABLE

A screenshot of a laptop displaying the Mission Encodeable website. The homepage features a large banner with the text "The coolest way to learn to code" and a "Get started" button. To the right, there's a section for "Python level 1" with a thumbnail of the course content. The footer of the page says "Welcome to Mission Encodeable".

A screenshot of the "Python Level 1" course page. On the left, there's a sidebar with a list of topics: "What is Python?", "Printing set up", "Printing to the console", "Syntax errors", "Maths in the console", "Comments", "Variables", "Exercise: variables", and "Naming variables". The main content area is titled "What is Python?" and contains a paragraph of text about Python's history and purpose, followed by a section titled "High level".

Mission Encodeable
is free to access
online at <https://missionencodeable.com>

A white hand cursor icon pointing towards the website URL at the bottom of the page.

Looking to the future

Do you see Computer Science being a part of what you do in future or as a career?

That's very likely. It's something I enjoy, and I can imagine working with technology in the future. Quite what I'll be doing, I don't know yet.

Would you recommend studying Computer Science to other students?

I'd recommend it to anyone who finds computers interesting. Whether or not you want to continue with it after GCSE, the computational thinking and problem-solving skills it develops will be of benefit.



To find out more about our Pearson Edexcel GCSE (9-1) Computer Science qualification please visit our website