**The Information Technologies Curriculum at Our Lady's Catholic High School**

Our Information Technologies Curriculum aims to provide the skills that pupils will need in the future within both education and the wider world. Information Technologies can provide excellent opportunities for pupils to create and present data in ways they may not have previously known was possible. Pupils see data and information around them all of the time but may not know how or why is presented in the way it has. They may not know how it is created to look like it does and this is key to Information Technologies.

Pupils will have used software on their computing devices most days of their lives but may not have thought about the process that it goes through before it gets to the stage where they use it. They may not have thought about how the final product has been produced. Within Information Technologies, pupils will learn about the project lifecycle and how a product moves from an idea to the final product.

Understanding the legal, ethical and risks that need to be considered when creating products is an important part of the project lifecycle. Overlooking these aspects would mean that there could be serious consequences for a business. By understanding, these aspects of a business would understand how data and information would need to be collected, processed, stored and protected. From this, pupils will understand how their data is used and the ways that it is protected.

Information Technologies is there to improve pupil's knowledge of the digital environments and build their confidence using them. Understanding these elements will allow pupils to develop practical skills by planning and creating an integrated technological solution to communicate information.

Information Technology ensures that pupils become digitally literate – to be able to use, express themselves and develop their ideas through information and communication technologies that is at a level suitable for the future workplace and active participants in a digital world.

During the two-year course, pupils continue to develop skills that have been covered within other subjects at KS3, especially Computer Science. Information Technologies allows pupils to develop these skills further but also to develop new skills, in particular practical IT skills.

The course follows the OCR Cambridge Nationals L1/L2 course, which is delivered over the two years at KS4. All work theory work is covered in Year 10 ready for the pupils to sit their exam (R012) in the January of Year 11. The practical skills are generally covered in Year 11 in preparation for their coursework (R013) task.
Both units (R012 and R013) interweave, and it has been decided that the curriculum follows the delivery of R012 before adding the practicalities of R013. There are obvious places where they overlap for example understanding how data and information is stored, data types are discussed and using a database is an excellent way to show how these work in a practical situation. The scheme of work has been sequenced so that pupils are able to build upon their IT knowledge throughout the course beginning with the project lifecycle. Ultimately, this underpins the whole course. By understanding the purpose and elements of

the project lifecycle, pupils can understand where and why all of the different elements fit into the bigger picture. From this, all topics follow on sequentially. For example we cover what the project lifecycle is and what happens in each section before we apply practical skills and follow the project lifecycle through the coursework piece.
Lessons are constantly requiring pupils to demonstrate past learning and allows pupils to build on their knowledge. Pupils understand that even though the work is taught in topics there are elements that weave through the whole course.

The department uses a range of teaching strategies and tools to support pupils in their learning. It is delivered in an engaging and supportive manner, which uses a range of techniques to ensure pupils have a clear understanding of the curriculum.

The curriculum for Information Technologies is designed so that all pupils are taught as individuals, including SEND and disadvantaged pupils as they are all taught the same topics. No topic is left out because it will be deemed "too difficult" for some pupils. The Information Technologies course allows lower ability pupils to achieve. A lot of work is put in during Year 10 ready for pupils to sit their exam within the January of year 11. However, this course allows pupils to resit if needed. This means that further support can be given to pupils who may need it. This course allows pupils of all abilities to thrive and achieve. Work is scaffolded to enable all pupils to apply their understanding to their R013 tasks to ensure that every pupil is equipped to achieve their potential within Information Technologies. When working through practical activities pupils are encouraged to create "step by step" guides on elements that may need to be covered within R013. This is supported by the class teacher to ensure it is clear on how to complete a specific thing e.g. making a title bold. This is then used to support pupils when completing their coursework and encouraged to use to gain higher marks. The expectation of the work that is produced is the same but the way of teaching it may differ or scenarios may differ to show the skills and understanding. Building up tasks allows pupils to build up confidence within the subject. Resources are purchased for all pupils but it has been found that these have been a great support for those with SEND (revision guides for example) as they can look back to the work covered to recap or to use within lesson to support their learning. Online resources have also been purchased to aid with learning as some pupils are put off by long exam questions. With resources such as Socrative, Quizzes and E-Revision support their learning in a different way. At KS4 pupils' strengths and areas of improvement are looked at to help support pupils through their exams and gain marks where their strengths lie.
Regular discussions with other Information Technologies teachers and being a part of a networking groups allows for continual development within the subject and its requirements. These are then embedded within lessons. Resources are constantly being updated to include current trends within the industry to be delivered within lessons, making the content more relevant to the students.
Pupils knowledge is assessed every lesson through questioning, knowledge checks and retrieval activities to ensure the teacher is aware of the level of understanding, any misconceptions and allow for learning to be re-visited if needed. Regular feedback is given to support and improve pupils understanding in both verbal and written forms. Pupils are set formal assessments at the end of each topic to check understanding and progress.
Tasks for outside of the classroom have been designed so that they can be completed online and on a mobile device but if, this is not possible, different provisions are put in place by the

department e.g. printing off the work. This is addressed at the start of the year so no learning is missed outside of the classroom time. Pupils are also encouraged to take part in any extra activities when they are run, for example the UK Bebras Challenge.

Within each topic, there is key vocabulary, which is discussed. Any words that pupils may not have come across before are discussed and put into context so any misconceptions are cleared up. Key words are introduced into each topic via workbooks and are discussed regularly. The teacher consistently uses subject specific language verbally as well as written instructions and pupils are encouraged to do the same. The use of questioning for homework tasks allows pupils to continue to see the keywords being used and applied.

Opportunities to discuss careers within the curriculum is discussed where relevant. Most units of work have the opportunity to discuss careers and this is shared with pupils. This allows pupils to see how the subject they are covering relates to the real world and how these skills can be applied. It gives the topic a purpose rather than just a task to complete for example when discussing the impacts of cyber security attacks, financial implications are discussed and how the business would need to improve their security. How this is achieved is discussed and how jobs such as cyber security analysists would be used.