ICT/COMPUTING-KS4 Compulsory

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The ICT department offers a stimulating and engaging curriculum which is tailored specifically to pupils who have social, emotional, behavioural and mental health needs. Every unit of study is specifically aimed at allowing children to develop skills that they can build on as they progress through their school journey and use later in life either in a further education setting or in employment. All KS3 pupils are taught skills in communicating information, developing ideas (coding), evaluating information and finding information as well as ways to be creative using a variety of software and hardware.

When pupils reach Key Stage 4, ICT is still taught as a compulsory subject however there are options as to what areas can be developed. Pupils continue to work on a tailor-made curriculum with achievable outcomes and skill development however the aim is to begin working towards qualifications offered that they could use. The pupils develop skills linked to the AQA exam board short courses that focus on the key software and tasks that are most likely to benefit them as the approach the time they move on from Oakfield School and into either further education or employment opportunities.

Schemes of work:

Year 10 COMPULSARY UNITS OF STUDY

Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
CREATING A MULTIMEDIA PRESENTATION USING POWERPOINT • load the multimedia program PowerPoint. • use a design presentation template to create a minimum of four different slides. • add text into the slides • import graphics stored on the hard drive or from the Internet into the slides • use animation to enhance the presentation • incorporate slide transitions involving sound and effects • run the PowerPoint demonstration slide show • print the PowerPoint slides.	**INPUTTING DATA INTO A SPREADSHEET AND USING FORMULAE IN EXCEL** • input a given list of data into a spreadsheet • use the correct formulae to calculate a total for each row and a final total • print a copy of the spreadsheet. • open a Microsoft Excel worksheet • sort data within Excel • insert a formulae using +, -, * or / to perform a simple calculation within the worksheet, eg total cost multiplied by quantity • use the autosum facility within Excel, eg SUM, AV, MAX, MIN • print out the worksheet, showing formulae • save the spreadsheet with an appropriate name • exit the Microsoft Excel Program.	**CODING USING SCRATCH** • open up the Scratch coding application on a PC • follow the instructions to produce a simple code • run the code and check it works • move sprites forward • add text speech to a sprite • spin a sprite around • make a sprite change colour • make a sprite dance • make a sprite glide • follow instructions to make a simple game • run the coded game to check it works • watching demonstrations on how to perform the above tasks, either by video or by the teacher/tutor. •	**MICROSOFT WORD: EDITING AND PRESENTING INFORMATION** • turn on the computer and printer • select Microsoft Word using the mouse • open a new document • type or copy a piece of text into the document • identify and delete given words and sentences from the document • check the spelling in the document using the spell check function • label an image • save the edited file to their folder • print the document out in full colour • close the program • turn the computer off correctly.	**CONSTRUCTING AND USING A SIMPLE DATABASE** • the meaning of the terms record, field, and file • access a database software package • design a database structure • save the database to an appropriate filename • input data • print out the database • perform a simple search of the database • print out the result of the search • add at least one new field to the database and enter appropriate data • save the amended database • print out the amended database • exit software correctly.	**APPLYING BASIC PHOTOSHOP SKILLS** • the key things that Adobe Photoshop is used for • at least two things that Photoshop can and cannot do • create a new project in Photoshop • use the basic tools inside photoshop, including the brush tools and shape tools • use layers in Photoshop • use at least two blend modes, setting the layer opacity to blend between layers • adjust the colours and exposure of the image layers • crop the layers, remove the backgrounds and use the eraser tool on a layer • flatten the layers to combine them together • add text to an image layer • save and export an image from Photoshop as .PNG or another suitable image format.

Year 11 COMPULSARY UNITS OF STUDY

Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
DEVISING A POWERPOINT PRESENTATION AND USING ANIMATION, VIDEO AND AUDIO IN POWERPOINT • start the computer, log on where necessary and load Microsoft PowerPoint • create at least five slides and input text or images to each • apply animation(s) where appropriate • present the completed presentation to staff and peers • print out the finished presentation • close PowerPoint, log off and close down the computer • watching a teacher demonstration of modifying slides, applying animation and presenting a completed presentation. • add, change or remove a minimum of two transitions between slides • animate at least two texts or objects • use the morph transition • insert and delete a video • add and delete audio • record a screen in PowerPoint.	**USING FORMULAE AND GRAPHS IN SPREADSHEETS** • open a spreadsheet • use an AutoSum tool to successfully calculate the total of at least two cells • input a formula for addition • input a formula for subtraction • input a multiplication formula • input a division formula • use the average function to find the average value of at least two cells • format a table to make its content clear • insert a graph • label the graph • outline what the graph shows • save their work and exit the software • at least two ways spreadsheets can be used in business and industry.	CODING USING SCRATCH AND IMPLEMENTING A 'GAME OVER' CONDITION • implement a 'game over' condition in the Scratch programming language on at least one occasion • how to create the conditions needed for game termination based on the given game events • how to program the 'game over' logic and its main effects on the gameplay • implementing and refining 'game over' conditions in their project. •	MICROSOFT WORD: EDITING AND PRESENTING INFORMATION (UNIT 2) • enter text of at least 100 words into a Microsoft Word document • underline part of the text, e.g. the heading • proofread the text, amending any errors • change the position of at least two paragraphs within the text, e.g. by cutting and pasting • redo the action that was last undone • use the cut, copy and paste functions to select and edit a minimum of two sections of text • format the text, e.g. by changing the font type, font size, or font colour • insert a picture from the computer library • insert at least two appropriate graphic images from either the Clipart or the Paint software • alter the layout of the text and graphic images as appropriate, changing the font style and size to completely fill one page • save and print the document.	CREATING AND INTERROGATING A DATABASE TO SPECIFY NEEDED DATA • open a spreadsheet program • read the data recorded in a given database • delete at least one piece of data • sort the data according to set criteria • filter the data according to set criteria • create a graph using the provided data • label the graph • create their own simple database • format the table to make it clear for the reader • interrogate their database using the sort, filter and graphing tools • save their database • exit the software • at least two ways databases can be used in business and industry.	PHOTOSHOP: USING FILTERS AND TOOLS IN CREATIVE WAYS • apply the blur filter to create within Photoshop, a tilt-shift effect for a miniature effect photograph • apply the plastic wrap filter to create icy text • use the liquify filter to create a surreal image • apply the glowing edges filter to create a sketch effect image • apply render lighting effects to change an image from daytime to sunset • save and print each edited image. •

Careers in ICT/computing:

1438_My Learning My Future_Computer_Science_Final.pdf (careersandenterprise.co.uk)