

Subject:	Science
Year:	9
Overview	Year 9 students study separate Physics, Biology and Chemistry in their GCSE Science lessons. There is a mixture of practical work, including Core Practicals that will be examined and theory lessons. Pupils are required to learn a number of equations during their course as these will not be provided in the exam paper
For KS4	<i>Edexcel (Separate sciences for set 1, combined for sets 2,3 and 4)</i>
Number of lessons over 2 weeks	9 (3 Biology, 3 Chemistry and 3 Physics)
Break down by term	<p><i>Autumn 1 & 2</i></p> <p><i>CB1: Key concepts in Biology</i></p> <p><i>CB2: Cells and control</i></p> <p><i>CC1 and CC2: States of matter</i></p> <p><i>CC3 and CC4: Atomic structure and the periodic table</i></p> <p><i>CP1 and CP2: Motion and Forces</i></p>
	<p><i>Spring 1 and 2</i></p> <p><i>CB3: Genetics</i></p> <p><i>CB4: Natural selection</i></p> <p><i>CC5, CC6 and CC7: Chemical bonding</i></p> <p><i>CP3: Energy</i></p> <p><i>CP4: waves</i></p>
	<p><i>Summer 1 and 2</i></p> <p><i>CB5: Health, disease and the development of medicines</i></p> <p><i>CC8: Acids and alkalis</i></p> <p><i>CP5: Light and the EM spectrum</i></p>
How will students be assessed	End of unit tests, core practical assessments and mock exams.
How can parents support their child in their learning	By consolidating work using BBC KS4 Bitesize or the SAM learning website. Also by listening to or reading about developments in Science in the media e.g. Newsround/ New Scientist.

Subject:	Maths
Year:	9
Overview	<i>In Year 9 students start the studying GCSE mathematics, they build on the core skills developed over the last 3 years and learn to apply these to formal exam questions.</i>
For KS4	AQA 8300
Number of lessons over 2 weeks	8
Break down by term	<p>Autumn 1 & 2</p> <p>Basic Number</p> <p>Factors and Multiples</p> <p>Angles</p> <p>Scale Diagrams and Bearings</p> <p>Basic Algebra Review</p> <p>Basic Fractions</p> <p>Basic Decimals</p> <p>Coordinates and Linear Graphs</p> <p>Rounding</p> <p>Collecting and representing data</p> <p>Sequences</p>
	<p>Spring 1 & 2</p> <p>Basic Percentages</p> <p>Perimeter and Area</p> <p>Real Life Graphs</p> <p>Circumference and Area</p> <p>Ratio and Proportion</p> <p>Equations</p>
	<p>Summer 1 & 2</p> <p>Basic Probability</p> <p>Scatter Graphs</p> <p>Standard Form</p> <p>Transformations</p> <p>Constructions and Loci</p> <p>2D Representations</p>
How will students be assessed	End of topic tests and formal mock exam at the end of year.
How can parents support their child in their learning	Supporting students with completion of homework and encouraging use of the PiXL Maths App

Subject:	Computing
Year:	Year 9
Overview	<p>A Computer Science qualification will, above all else, be relevant to the modern and changing world of computer science. Computer Science is a practical subject where learners can apply the knowledge and skills learned in the classroom to real-world problems. It is an intensely creative subject that involves invention and excitement. It will give an understanding of how computer technology works and looks at what goes on "behind the scenes". Through study of computer programming the course will help develop critical thinking, analysis and problem solving skills.</p> <p>GCSE (9-1) Computer Science has been improved and reformed to meet the demands of a modern and evolving computer science industry and educational sphere.</p>
For KS4	9-1 Computer Science J276
Number of lessons over 2 weeks	4
Break down by term	<p>Autumn 1 & 2</p> <p>Python Basics:</p> <p>Output to the screen</p> <p>Storing data in variables</p> <p>Inputting data</p> <p>Calculations</p> <p>Data Types</p> <p>Selection with If</p> <p>Alan Turing Project</p>
	<p>Spring 1 & 2</p> <p>Making programs easier to read</p> <p>Iteration – count controlled loops</p> <p>Iteration – condition controlled loops</p> <p>Subroutines – procedures and functions</p> <p>Lists</p>
	<p>Summer 1 & 2</p> <p>String handling</p> <p>Reading and writing to files</p> <p>Consolidation - Python worked challenges</p>
How will students be assessed	Students will be assessed regularly by means of practical based tasks which assess them on techniques learnt.
How can parents support their child in their learning	Ensure home learning tasks are completed. Programming software is open source and readily available to download so students are encouraged to carry out independent learning in their own environment wherever possible.

Subject:	ICT
Year:	Year 9
Overview	This qualification aims to: <ul style="list-style-type: none"> • equip young people with the knowledge, understanding and skills they need to design and make digital products for others to use • enable young people to use digital tools as a means of expression to inform, persuade and entertain • foster young people's creativity and develop their independent learning skills • challenge young people to reflect on what they produce and strive for improvement • increase young people's awareness of their responsibilities in the digital world and their respect of other people's rights • equip young people with real-world skills in planning and communication • give young people the knowledge, understanding and skills they need to support future learning
For KS4	Pearson Edexcel Level 1 Certificate in Digital Applications Qualification Number (QN) 601/3256/5
Number of lessons over 2 weeks	3
Break down by term	<p><i>Autumn 1 & 2</i> Delivering Unit 1: Developing Web Products This unit gives students an introduction to web authoring. Most students will already have considerable experience of websites and other web products as users, however, they may not have given much thought to what makes a good website. They should be encouraged to look critically at a variety of web products for different audiences and purposes. It is important that students investigate aspects of successful design, including content, structure, navigation and interactivity.</p>
	<p><i>Spring 1 & 2</i> Delivering Unit 2: Creative Multimedia Most students will already have experienced lots of multimedia products but may not have given much thought to their features. Students should be encouraged to explore a range of multimedia products, for example websites, presentations, e-books, information points and games. Resources are available at the library, in shops, on the internet and on games machines. It is important that students investigate aspects of successful design, including content, structure, navigation, screen and interactivity and discuss possible alternatives to the components used. They should try to establish the purpose and intended audience for each product investigated and judge whether it is fit for purpose. Students will probably need guidance when planning their multimedia products and on sourcing assets. It is important that they are given a range of sources for assets. While collecting materials they must be reminded about the laws of copyright and the importance of acknowledging sources. They should be encouraged to keep an ongoing record of all sources of the assets they collect. The design process is crucial to the success of a multimedia product. Students should be encouraged to make all the important decisions before developing a product. They must be able to use storyboards and structure charts for this purpose. Students should be encouraged to regularly test their</p>

products during development and to respond to test user feedback. Students need to gain experience of using a range of software applications before embarking on the Summative Project Brief. It may be useful to give them a series of small projects to carry out to help them acquire the skills they need to edit ready-made components and to create their own. It is important that students observe standard ways of working, even when they are not explicitly assessed.

Summer 1 & 2

Delivering Unit 3: Artwork and Imaging

There are real opportunities here to work collaboratively with colleagues teaching art and design or graphic products. However, it is also perfectly possible for students to be taught in discrete lessons. What is important is that whoever teaches this unit has a good grasp of graphics technical concepts such as file size, image size and colour models. Students should be encouraged to evaluate a variety of images in terms of how well they serve the purpose for which they are intended. It may be useful to use group work. Asking a group of students to judge the success of a graphic product and present ideas to the wider group will be helpful in exploring a range of ideas and sources. Students will work with images they have created themselves from primary sources and will need to gain experience in methods of image capture. It is vital that they are given access to a range of secondary sources, including photographs, image libraries, maps, etc. It is important that students have access to a range of graphic software, including vector based and bitmap. They should be aware of the most suitable uses for each graphic type. They need opportunities to explore the tools and techniques of the software available to them. The developmental process of producing artwork and images is crucial in ensuring its success. It would be useful for students to be introduced to a suitable design methodology. This approach will ensure that students store the stages in the development of their design accurately. Keeping a record of all their experiments is important for the final evidence. Students should be encouraged to allow others to feed back on their work. It is important that students appreciate the need to prepare the graphics they produce for the intended medium, whether digital or print. In preparing artwork and images for the screen and print, students need to be aware of factors such as resolution, colour, file format and size, and how they might impede the ability of the audience to view the graphic. When producing a graphic for a particular purpose and audience, it is important that students continually test the product. It will be difficult for them to make extensive changes at the end of a project, as they have invested much time and energy in the idea. It is essential to build in periods of reflection at different stages during the development of the graphic. Peer support and feedback will be a useful strategy as it will help students to build their evaluative skills, while helping someone else. There must be a thorough period of testing once the graphic has been produced. Students need to use a clear method of documentation to record the testing and correction cycle. It is vital that suitable file formats are used for images and documents so that people can view or read them, even

	if they do not have the software that was used to create them installed on their computers.
How will students be assessed	<p>Summative Project Briefs</p> <p>All units will be assessed through a Summative Project Brief. The Summative Project Brief is the means by which students bring together the knowledge, skills and understanding they have acquired throughout the unit into a synoptic piece of work. There is a Summative Project Brief for each unit. Summative Project Briefs are set by Pearson, administered and marked by the centre, and moderated by Pearson</p>
How can parents support their child in their learning	Encourage creative endeavours and encourage home learning.