St Cecilia's R. C. High School

Key Stage 1 and 2

Aims of Study

https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study#key-stage-2

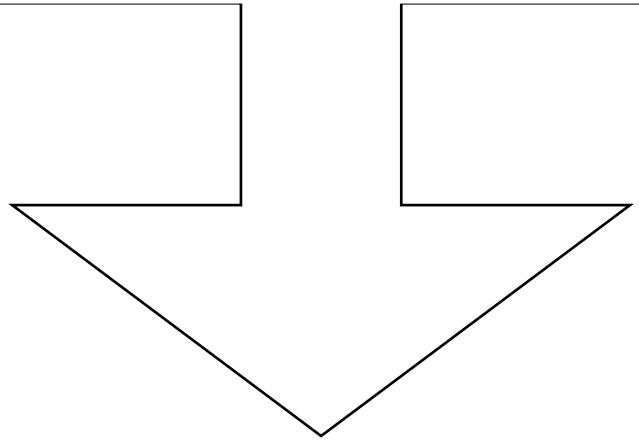
Key Substantive Knowledge Carried Forward (subject knowledge)

Pupil experience at KS2 is very varied. Most pupils bring little or no substantive knowledge with them. For example, some pupils have used PowerPoint but no key concepts such as *design* or *target audience/purpose* have been introduced.

Many pupils know how to search for images/text but the key concepts of how the results they have got have been ranked and how to evaluate the information they find have not been fully introduced.

Key Disciplinary Knowledge Carried Forward (methods/framework to establish knowledge)

At KS2 pupils' disciplinary knowledge appears to be based on using touch screen devices and the current Year 7 have little experience of using a mouse or keyboard. Computational thinking experience is lacking and a large number of pupils have not made links between how applications have icons and menus that are the same so see applications as separate instead of similar(e.g. File, Save is always in the same place)



Year 10

Unit Title	RO93 Topic Area 1 – The Media Industry	RO93 Topic Area 2 – Factors influencing product design	RO93 Topic Area 3 – Pre-Production Planning.	RO93 Topic Area 4 – Distribution Considerations
Composite Knowledge/End Point (big idea that should be answered at the end of a unit)	Know the different sectors that form the media industry and how these are evolving. Know the types of products produced by, and used in, different sectors. Know that the same product can be used by different sectors. Know the different job roles in the media industry and identify the responsibilities the job roles have. Know that some jobs are specific or some span over multiple production phases.	What are the different purposes of media products? How can style, content and layout adapted for each purpose? What is a client brief and what requirements do they contain? What is audience segmentation and how are audiences grouped together. Why do we carry out research? What different methods of research can be carried out? What are media codes and how they are used?	What are work plans and why are they used? What documents should be used to help generate ideas for a project? How do these documents help to generate ideas? What content/features/style should be used to make them effective? What is the purpose of documents such as asset logs, script, storyboard, flow charts? What are the key conventions and components of each document? What legal issues affect media? What types of products are covered by regulation, certification and classification? How does Health and safety affect all phases of production?	What are the different distribution platforms that can be used to reach audiences? What are the advantages and disadvantages of these platforms? What are the properties and formats of image files? What are the properties and formats of audio files? What are the properties and formats of moving image files? What is file compression and why is it used? What is lossy compression? What is lossless compression?
Examples of Key Substantive Knowledge (specific subject knowledge relied upon for later study or to grasp the composite idea for that unit)	Sectors of the media industry can be split into 2 – traditional (TV/Film/Radio/Print) and new media (computer games/internet/digital publishing/interactive media) Job roles can be in the creative (animator, script writer, web designer) or technical (sound editor, video editor, camera operator) or senior roles (director, editor, campaign manager). Products in the media industry include video, audio, music, animation, websites, AR/VR, eBooks, graphics, comics, games and special effects.	There are 5 purposes of media products - educate, inform, entertain, advertise/promote, influence. Style, content and layout are adapted to meet each purpose in terms of colour, genre, language and positioning of elements. Client briefs outline the client's requirements and are used to inform the planning of the project. The client brief can be communicated in different ways such as written, discussion, formal/informal and the can be negotiated or on commission. The categories of audience segmentation are age, gender, occupation, income, education, location, lifestyle and interests.	Pre-production refers to work done on a product before full scale productions begins. Production refers to the making or generating of the media product. Post-production is work done on the media product after it has been created. Work plans are used to manage time, tasks, activities and resources for individuals and large teams. A mind map is used to organise ideas into themes/topics (nodes). A mood board is used to explore the idea or theme rather than a specific document. Copyright protects your work and stops others using it without permission.	The 3 main distribution platforms are online, physical platforms (kiosks, PC, mobiles) and physical media (CD, memory stick, paper based). Static images do not move and can be vector of bitmap images. A bitmap image is made up of pixels which are squares of colour. A vector image is made up of lines, shapes and mathematical formulas. An uncompressed audio file format means the file contains raw audio in its original size with the sample rate and but depth the same as at the time of recording. Moving images contain frames.

		Primary research methods include focus groups, interviews and surveys. Secondary research groups include books, newspapers, internet sites. Technical codes refer to the ways in which equipment is used to tell the story. Media codes are used to construct or suggest meaning in media products.		Lossy compression creates smaller files for storage ands transmission by removing data that is not needed.
Examples of Key Disciplinary Knowledge (methods/framework to establish knowledge)	Research activities into the media industry to analyse the different sectors and job roles available. Selecting relevant information from a range of sources to produce a guide on responsibilities linked to certain roles. Applying knowledge to exam questions.	Evaluate a range of media products with the focus being on style, content and layout. Evaluate a range of products looking at purpose and audience. Research client briefs with the aim to produce a client brief for a scenario.	Research into the different documents used in the pre-production phase. Generate an example of a range of pre-production documents with peer feedback. Apply knowledge to exam questions. Research into legislation and regulations and apply what they have found out to different scenarios.	Research file formats for images/audio/animation/video. Discussions in class about the platforms used to reach audiences. Analyse research to give reasons for the file formats they would choose for certain assets. Applying knowledge to exam questions.
Examples of Reading Opportunity	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Exam questions	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Exam questions	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Exam questions	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Exam questions
Examples of Key Tier 2 Vocabulary	Sector, consumer, traditional, technical, media, virtually, infrastructure, justification, function.	Interpret, purpose, audience, genre, client, research, sources, impact, engagement.	Legal, principle, legislation, method, resources, project, framework, refine, intellectual, regulation, health and safety.	Properties, file format, online, physical, media, images, audio, multimedia, advantages, characteristics
Examples of Key Tier 3 Vocabulary	Graphic, virtual reality, augmented reality, platform, content creator, SFX, VFX.	Segmentation, elements, client ethos, client brief, visual representation, audio representation, qualitative, quantitative, media codes, mis-en-scene, typography.	Asset, wireframe, visualisation diagram, libel, slander, copyright, GDPR, patents, location recce, certifications.	Platform, DPI, resolution, bitmap, rastor, vector, lossy, lossless, bit depth, frame rate,

Year 10

Unit Title	RO94 Topic Area 1 – Develop a Visual Identity	RO94 Topic Area 2 - Plan Digital Properties for products.	RO94 Topic Area 3 – Create visual identity and digital graphics.	R097 Topic Area 1 – Plan Interactive Digital Media.
Composite Knowledge/End Point (big idea that should be answered at the end of a unit)	What is meant by visual identity? What elements make up a visual identity? What is a brand identity and how does a visual identity relate to this? How is a visual identity influenced by business type, brand values and brand positioning? How do you make a visual identity appropriate for the audience and type of market?	What typical layouts are used for a range of documents such as games, leaflets, book covers, posters, packaging etc? Be able to discuss and evaluate concepts of visual identity in terms of visual identity, typography, use of colour/colour systems and use of white space. Be able to discuss and evaluate the technical properties of images and graphics – bitmap and vector. Which pre-production documents will help to generate ideas and plan the visual identity?	Be able to use tools and techniques of imaging editing software to create the digital graphic. Be able to show technical skills in order to source, create and prepare assets for use within digital graphics. Be able to show consideration of the law and licenses related to graphics and images. Be able to save and export the graphic created in suitable formats for different uses.	What does interactive digital media mean? What are the different formats that interactive digital media could take? What devices can be used to access the interactive media products? How does audience and purpose affect the format? What content would be used in interactive digital media? What are assets and how are they used to create content? How would content be adapted to suit different access methods? What makes an effective GUI? What different types of interfaces are there and their advantages and limitations? How can accessibility be considered? What resources will be needed (hardware and software)? Be able to use pre-production planning documentation and techniques for the interactive digital media.
Examples of Key Substantive Knowledge (specific subject knowledge relied upon for later study or to grasp the composite idea for that unit)	A visual identity is used to communicate the nature of brands and business services or products. The component features of a visual identity are the name, logo and slogan. The elements of a visual identity are graphics, typography, layout, colour palette and meaning. For a visual identity to be fit for purpose the impression created by it must be in line with the desired brand identity.	Graphic designs should include visual identity and house style. Typography relates to the style of text used. Typography is important so that you convey clear messages using suitable fonts and sizes. Bitmap images have limitations such as number of colours supported, scalability and transparency. An asset table is used to record details of assets used in the digital graphic such as licence/copyright in formation, date accessed, source, properties and how it will be used.	I can set the canvas size by expanding or making smaller. I can alter the brightness and contrast levels of an image. I can use layer styles such as shadows or textures to enhance the visual impact. Be able to recognise the difference between copyright and creative commons licenses. Be able to save files in different versions so that they can be edited in the future. Be able to set up a clear folder structure starting with a root folder and the clearly named sub folders.	Interactive digital media are websites, games, mobile apps, information point, e-learning products, digital maps. The type of digital product chosen depends on the purpose and audience of the media products. Hardware devices used to access interactive digital media are computers, tablets, mobile phones, kiosks, games consoles, smart TV. Non-linear navigation gives the user the control over the information they want to see/visit.

		Pre-production documents used to generate ideas are mood boards, mind map, visualisation diagrams and concept sketches.		To plan the interface of the digital media a wireframe and storyboards must be produced.
Examples of Key Disciplinary Knowledge (methods/framework to establish knowledge)	In class discussions about brand identity and analyse how the brand has achieved this. Analyse and evaluate the success and limitations of logos, slogans of famous companies. Applying knowledge to their NEA.	Evaluate a selection of given examples for a range of documents. Produce a guide about bitmap v vector that will focus on properties, benefits, limitations, file formats and uses. Retrieval of knowledge about legislation and produce an asset table to show copyright being taken into consideration. Applying knowledge to their NEA.	Use of I do…We do…You do to develop software skills. Apply the skills developed to creating their visual identity. Applying knowledge to their NEA.	In class discussions about what interactive digital media means and produce a mind map of different examples. Analyse and evaluate the success and limitations of real world examples. Produce pre-production documents to show the development of the interactive digital media. Applying knowledge to their NEA.
Examples of Reading Opportunity	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks
Examples of Key Tier 2 Vocabulary	Business, audience, purpose, logo, slogan, graphic, layout, economy, component, element.	Alignment, content, layout, products, web, advertisement, limitations, transparent, social media, text, applications, identify.	Enhance, expanding, modify, structure, layer, permission, obtain, original, digital, edits, properties, requirements	Interactive, media, purpose, access, structure, range, devices, content, technical, method, user, accessibility, appropriate, original, imaginative, designers, navigation.
Examples of Key Tier 3 Vocabulary	Typography, colour palette, visual identity, brand, high-end, mid-range.	Bitmap, rastor, pre-production, concept sketches, mood boards, stock libraries, search engine, third party assets, white space	canvas, contrast, opacity, cloning, filters, masks, texture, monochrome, download, licences, file format, proprietary, repurpose, archive, pixel	Convention, graphical user interface (GUI), software, hardware, authoring, stylus, monitor, trackpad, derivative design, intuitive interfaces, non-linear, navigation.

Year 11

Unit Title	RO97 Topic Area 2 – Create interactive digital media	RO97 Topic Area 3 - Review Interactive Digital Media	Revision: RO93 Topic Area 1 – The Media Industry RO93 Topic Area 2 – Factors influencing product design	Revision: RO93 Topic Area 3 – Pre-Production Planning. RO93 Topic Area 4 – Distribution Considerations
Composite Knowledge/End Point (big idea that should be answered at the end of a unit)	How do you use search tools to source assets? How do you use libraries to select pre-made content. Be able to use software tools and techniques to create and repurpose static image assets, moving image assets, interactive assets and audio assets. Be able to structure a project folder.	What methods of testing can be used and why is testing important? How should tests be recorded and how and when to retest? How do factors such as time, resources, budget, legislation constrain the quality of the digital media? How can the product be further developed in terms of scope, altering the p[product type or adding further multimedia elements?	What is the media industry, sectors and products? What are the job roles involved in the media industry? What are client requirements and a client brief? What to consider in terms of style, content and layout when thinking about purpose? What are research methods? What are media codes?	What is pre-production planning? What sort of documents are used to generate ideas? What documents are used to design and plan? What legal issues and regulations affect the media industry? How does health and safety have an impact on the industry? What distribution platforms are used to reach audiences? What are the properties and formats of media files?
Examples of Key Substantive Knowledge (specific subject knowledge relied upon for later study or to grasp the composite idea for that unit)	Be able to search tools to find assets suitable for the interactive digital media. Be able to use filters to enhance visual appeal. Be able to choose the right format to save the assets so they can be used withing the digital media. Be able to join sounds together to extend sound assets. Assets are saved with suitable file names and in the correct folder. Be able to produce a master page and screen templates for the digital media that show a clear house style.	Functionality tests focus on navigation, interactivity, inputs and outputs. Testing plans will test for functionality, multimedia assets and input being accepted/rejected. Interactive digital media constraints include time, resources, hardware, software and skills. Interactive digital media improvements include overall style/design, quality, content, audio and animation/video.	For more detail about this please see the section for each Topic Area at the beginning of the document.	For more detail about this please see the section for each Topic Area at the beginning of the document.

Examples of Key Disciplinary Knowledge (methods/framework to establish knowledge)	Research different sources for gathering assets and be able to give benefits/limitations of each. Use of I do…We do…You do to develop software skills. Apply the skills developed to creating their interactive digital media product. Applying knowledge to their NEA.	Carry out testing on a given interactive product to see the different types of testing that can take place. Produce a test plan for their interactive media product. Applying knowledge to their NEA.	See the examples given in the beginning of the document for the different topic areas.	See the examples given in the beginning of the document for the different topic areas.
Examples of Reading Opportunity	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks	Creative iMedia Student Textbook. Various websites found by pupils during research gathering exercises. Project brief – scenario and tasks	Creative iMedia Student Textbook. Various websites found by pupils and previous class notes. Exam questions.	Creative iMedia Student Textbook. Various websites found by pupils and previous class notes. Exam questions.
Examples of Key Tier 2 Vocabulary	Techniques, search, advanced, static, narration, adjust, structure, folder, buttons, diagrams.	Structure, checklist, quality, development, successful, appropriate, improvements.	See Tier 2 words in each of the topic areas at the beginning of the document.	See Tier 2 words in each of the topic areas at the beginning of the document.
Examples of Key Tier 3 Vocabulary	Hue, saturation, trimming, splitting, transformations, blur, cloning, speed, pitch tempo, banners, navigation bars.	Test plan, navigation, playback, input, output, aesthetics, client brief, distribution channels, budget, scope, constraints, commissions, repeat business	See Tier 3 words in each of the topic areas at the beginning of the document.	See Tier 3 words in each of the topic areas at the beginning of the document.