Year 9 – COMPUTER SCIENCE Programme of Study

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit/Topic	Text Adventure (part 1)	Text Adventure (part 2)	Bitmap graphics in Affinity 1	Game Development 1	Bitmap graphics in Affinity 2	Game Development 2
Enquiry Question	How can I start to code in JavaScript?	What makes a good choose-your-own-adventure game?	How do we create compelling digital artwork?	What are the core skills I need to know to create a 2D platformer?	How do I use advanced techniques within Affinity?	How do I create a compelling game?
Key Content	- Using the repl website. - Reading and writing to/from the console. - Using variables (using let and const; differences to C#). - Using functions; signatures and return values. - Introducing classes as objects and dictionaries. - Examples of classes using P5.js (links with Y8 work).	- Creating suitable mindmaps. - Creative writing for descriptions of rooms, objects, characters. - Review of existing codebase for core of adventure engine. - Creating and understanding functions; implementing the mindmap as a series of functions. - Augmenting adventure with extras including lives, inventory, colour formatting, characterisation.	- Introduction to Serif Affinity suite. - Affinity Photo as a PhotoShop alternative; purpose of image editing software. - Creating new images, the canvas and image attributes. - Adding basic shapes. Importing existing images. - Cloning areas. Destructive vs. non-destructive editing. - Layers; live filters and adjustments. - Selection methods.	- Introduction to GDevelop. - Coordinates. - Objects. - Sprites: types, animations. - The Events Sheet. - Variables: instance, scene, global. - Advanced events handling.	- Layer effects. - Advanced selections. - Rules of composition. - Working to a design brief. - Layer masks. - Text, styles and transformations.	- Recap of prior learning. - Creating and sourcing sprites. - Adding backgrounds. - Camera movements. - Prizes; scores. Timers; damage; lives. - Exporting a game.
Milestone Assessment	The working text adventure with key aspects documented into a SWEDE journal.		An INFUSE journal that covers CityScapes and Victorian House.	N/A	Continuation of the INFUSE journal covering Dispersion and InHuman.	A SWEDE journal that highlights key functionality of the events model, object attributes and game functionality.