

Parkside House ICT and Computing Year 2 Core Elements

Term 1: Image Manipulation

Faking IT

As part of Digital Literacy pupils need to be aware how images are altered before being published online or in print media. It is important that pupils do not use these modified images as a benchmark as to how to judge themselves. This unit shows pupils a basic set of editing techniques that are used to enhance images using the image manipulation applications, Paint.NET, GIMP, , Pixlr Express and Pixlr Editor. Pupils source images for the internet and use the applications to:

- Remove Red Eye from a photograph
- Edit out spots and blemishes from a social media profile picture
- Whiten teeth and change a person's eye colour
- Add digital makeup and contour shadowing to a profile picture.

Composite Images

Digital images are often built-up from several sources as a Composite made up of Layers. Pupils begin by creating a simple 2D graphic of a house in MS Paint and revise how to use the fill, pattern and line tools. They then import that image into Paint.Net and use the Magic Brush select tool to cut the image and place it onto a new background introducing the idea of a digital collage in Layers. The pupils undertake a film poster project that requires the use of foreground and background images, practising select and cropping tools and managing layer and effect filters. The composite image is then imported into MS Word where they can add text using Word Art and Textboxes to create a complex composite final image.

Term 2: ICT and Business: Game On

This is an extended project based unit where the students will plan and create their own board game. It is designed to help students see how ICT can support the development of a product, its marketing and ethical issues in gaming.

Students will play several board and online games, comparing rules, rewards and looking at how different genres and content aim products at specific audiences. They collect and analyse examples of game marketing and how different editions of the same game can be used to increase sales. As part of digital literacy, we investigate how the *Hook, Habit, Hobby* model is used to keep players spending money in online games. The pupils practise word processing and basic image importing by using MS Word to create a games review. Advanced students will be able to use columns and backgrounds to improve their work.

Pupils design their own version of a board game for a specific market i.e. Fortnite draughts using the skills developed in the previous Composite Image unit.

Term 3: Two Types of Data Handling: Programming and Presentation

Introduction to Python

This unit is an online course from Teach-ICT and builds upon work done in the Year 1 Visual programming unit. Here the students will be creating programmes in text instead of visual programming blocks. Students learn the basics of how to open the Python shell, how to run a program and how to write a simple one line program to output text. It then teaches them to write programs that use the input function, If ... Else and Elif. By the end of this unit students will create a simple Chatbot which will respond to user input. Students will also learn about the history of computing by studying the contribution of British scientist Alan Turing during World War and the *Turing Test* to create a believable Chatbot that led to development of the Siri, Alexa and Cortana digital assistants.

Theme Park Project

Students will create a simple slideshow based on collecting information on the top 5 rides or theme parks from around the world. It is designed to practice importing text and images to a slideshow and showing how skills learnt in MS Word are transferable other MS Office packages. Pupils can experiment with predefined templates or create their own. Some pupils will progress to create a poster for an open day at a specific park and a promotional press release for the event.