

## Curriculum Provision

### Subject - Computing

Key Stage 2	
Year 5	Year 6
Year 5 and 6 are taught in unit blocks throughout the year.	
Autumn Term	
<p><u>E-safety</u> Pupils start the year focusing on safe use of computers within school. Year 5 will learn how to search online safely and accurately to gain the desired search result, as well as safe use of the school computer network and email system.</p> <p><u>Computer Programming</u> Children learn the role of computer game developers while they design and create their own educational game and a product for the Christmas toy market using the Scratch programming language.</p> <p><u>Product Design</u> Pupils research and design a new toy ready for Christmas. From programming the toy to creating its logo, pupils will use a range of computing skills in preparing their toy.</p>	<p><u>E-safety</u> Pupils learn about the threats of various online activities and how they can keep themselves safe. Pupils create a presentation to explain how to be E-safe.</p> <p><u>Computer Programming.</u> Pupils design a game of their own choice and plan the code required to make their game work. Pupils use Scratch programming language to code their game. Pupils then play test their game and debug any code which is not working as they had planned. <u>Codes/Encryption</u></p> <p>Pupils learn how computers can be used to create and decode ciphers and how codes are used in computers to secure information.</p>
Spring Term	
<p><u>Making Music</u> Pupils use LMMS computer software to create a simple musical loop, which will be used to provide a soundtrack for a video.</p> <p><u>Web design</u> Pupils will look at the building blocks of web page design, looking at the code of established web pages. Through reading and editing HTML, pupils learn how websites are written and begin to make changes and designs for their own WebPages.</p>	<p><u>Creating Patterns</u> Pupils learn basic written coding skills through the use of MSW LOGO. Pupils will use accurate keyboard skills to create complex patterns through control of a "turtle".</p> <p><u>Creating a Web Page</u> Using Microsoft Dreamweaver pupils will build a web page through drag and drop programming, which will generate HTML for the web page. Pupils will then break down the HTML to understand how their web page has been built. Pupils will edit the HTML directly to make changes to their web page.</p>
Summer Term	

<p><u>Creating a Presentation</u> Pupils research and create a presentation about our solar system. Pupils will learn how to make effective presentations which present their information clearly, whilst keeping the audience's interest. <u>Creating a Wiki</u> Pupils work as a class to research a topic using the internet, design the layout and links of the wiki, write the content of each page of the wiki and edit the finished wiki when new information is learnt.</p>	<p><u>3-D modelling</u> Pupils use 3-D modelling software to create a model of a room. Pupils will add details of the room such as location of windows, position and orientation of doors and furniture within the room. <u>Blogging</u> Through research of existing examples and creating their own blog, pupils will learn how and why blogs are created and how authors write of an audience.</p>
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### Subject - Computing

Key Stage 3	
Year 7	Year 8
Year 7 and 8 are taught in unit blocks throughout the year.	
Autumn Term	
<p><u>E-safety</u> Pupils learn how cyber-bullying happens and what they can do to solve issues caused by cyber-bullying. Pupils create a play script to dramatise a cyber-bullying scenario. <u>App Planners</u> Pupils work in teams to research and decide upon an idea for a mobile app to create. Pupils will use questionnaires to help choose the best ideas for their app. <u>Collecting Data</u> Pupils use Microsoft Excel to collect data about their app design. Pupils choose how that data should be presented in graphical form, which will feed into their app PowerPoint presentation.</p>	<p><u>E-safety</u> Pupils use drag and drop programming to create an animation based upon the theme of e-safety when using social media. <u>Graphic Manipulation</u> Pupils use Serif software to manipulate images. Activities will include combination of images, removal and addition of features and blending images from two sources. <u>Publishing in the Web</u> Through use of Microsoft Dreamweaver pupils will learn how websites are made using HTML.</p>
Spring Term	

Interface Design

Pupils work to create the interface design for their app. Pupils use opinion panels of other pupils to help create a clear user interface to their app with a logical layout.

App Design

Using their research and plans, pupils begin work on their apps. Pupils will build their design as a team and test features as they build the app.

Advance game design

Pupils design and develop their own multi- layer game which includes a progression of levels using drag and drop programming.

Spreadsheet Modelling

Taking the role of a record executive and tour manager, pupils create Logos, merchandise and spreadsheets to coordinate, model and predict various aspects of a band on tour.

Summer Term

App Design

Pupils continue to build their app. Once the app is complete pupils Beta test their app to try to find any faults and debug their code.

App Advertising

Using Microsoft Office, pupils create a portfolio of advertisements and presentations about their app.

3-D Modelling

Pupils use Google sketch up to create 3-D models of buildings. Using Google earth images, pupils create models of buildings from the real world.

Audio/Video Manipulation

Pupils use editing software to create a “best bits” video for their time at Penkrige. Pupils learn how to edit effectively.