Year 8 Llanidloes FC Project

This project will require about 24 lessons to complete

Learning Objectives

To gain competency in the use of Word Processing software (WP), Desktop Publishing software (DTP), Modelling software (Spreadsheet) and Data handling software (Databases)

To learn to use ICT and Online Tools and features to enhance learning across differing curriculum subjects, with a focus on the software tools and features relevant to each subject area.

To learn about Modelling software such as the use of computers to model and predict weather, traffic management, flight sims –

BBC Bitesize Modelling revision - https://www.bbc.co.uk/bitesize/guides/zyqfr82/revision/1

BRIEF: Llanidloes FC (or Rugby/ Hockey etc.) has received sponsorship money to rebrand, and put money into a new stadium. They have set a competition for local school children There are three categories:

1. Create a match day programme
2. Create a modelling spreadsheet to create a League table
3. Create a test database to hold records of the players

Research and analysis of the problem

A good way into this theme is to research sports programmes, league tables, player stats and profit and loss sheets.

Pupils could collaborate on this project and they can share their ideas, planning, designs, and track progress using **Microsoft Teams**. Separate Teams could be made for each group, or **Breakout Rooms** used when meeting to conference.

The **programme** should reflect the spirit and colours of Llanidloes FC. Create a pixelart logo to be used on shirts, tickets, match programmes and posters. Use Paint.Net.The Logo should be around 90x120 pixels. Showcase the Logo on a t**wo-sided match programme**. There should be appropriate instructions for people to find the stadium together with kick off time and ticket prices. The higher levels may be achieved by designing a park map to

place on the back of the leaflet. This could be done in an image editing program like Paint.net and created using the PixelArt technique. Research other sports programmes to get ideas. Email a first draft to your friend and ask for design help. Reply to them with thanks. Explain in your email how you ensured you didn't infringe copyright laws (Sourcing from creative commons etc.) Research the businesses in Llanidloes that may be able to sponsor Llanidloes FC. Add an advert for your chosen business onto the programme.

The **spreadsheet** model should cover the income generated by ticket sales and sponsorship, food sales, and also the outgoings that the owners will have to pay out to run the team. At the higher levels ticket sales should account for different ticket types such as adult, child, OAP, student and family. There should also be a separate means of applying a discount on special viewing days or if group/family tickets are bought (a **variable**). Outgoings that the owners will have to pay out on might include: player and staff salary, food and drink sales, insurance, maintenance of site, services such as electricity, water and sewerage. The table data should also be represented in a chart/ graph, with Title and named axes. Pupils should create two different sorts of chart/ graph and explain which one best displays the data.

The **database** should be a trial database that will include at least eight players. Some of the Fields that might be useful are, first and last name, height, weight, playing position, games played, goals etc. Create a sort, simple search and complex search (on two Fields) for a good reason. (If MS Works is not available, use Excel with sorts and filters)

Write an **Evaluation** of your project, describing reasons for your designs, describing your formulas and why you chose the Fields for your database.

Extension – Minecraft Task – join a team of no more than four other pupils and use Minecraft to complete one of the following tasks (collaboration):

- Create a football pitch, including markings and flags
- As above, and add stands and clubhouse
- As above, and add parking, ticket booth, toilets and bus stops

Suggested approach to this task – plan out on graph paper first to get the proportions right (numeracy).

Use the camera and book and quill to record progress, and save as pdf to h drive

Minecraft Education (downloads, tutorials, help guides) - https://education.minecraft.net/

Must be able to:

Presentation (Communicating information)

- Create a presentation of three slides minimum with transitions
- Combine images (from 2 sources – clipart/internet) and text
- Use Wordart, textboxes, page guides in poster, page numbering
- Drafts must be peer-assessed then an improved final draft created based on suggestions

Spreadsheet (Modelling)

- Be in landscape orientation, with row and column headings for printout (Page set up)
- table should have borders, clearly marked headings, three different data types (eg text, currency, number or date)
- should show use of formulas – SUM, MIN, MAX, AVERAGE
- should use relational cell referencing (click and drag formulas)
- should be able to print table in data and formula view

Database (Data handling)

- be in landscape orientation with borders and headings displayed for printing
- at least 8 records and 6 fields
- create a sort, simple search, complex filter with appropriate reasons, use of a MATH function

For highest levels:

Presentation (Communicating information)

- use master page to keep consistency of design
- no spelling or grammatical errors
- use of custom bullets, custom tables, differing text alignment, use of text wrap, headers and footers, overlapping frames, captions

Spreadsheet (Modelling)

- excellent use of formatting tools (Bold, colour, borders), no spelling errors
- use of absolute cell referencing ($A%1), other complex tools, two different types of chart with titles and names axes if appropriate

Database (Data Handling)

- excellent use of formatting, no spelling errors
- a report with use of two Math functions

Assessment

Could include written evidence with screenshots, Q&A and Group discussion, Tests, witness statement by teacher (Oracy)

- should be able to explain how the completed tasks are appropriate for a specific audience and purpose
- should be able to explain what modelling and simulation software is used for
- should be able to explain a variable and what they are used for
- should be able to explain use of databases with a typical example (eg Netflix, FC League table)

KS3 Level Descriptions

Level descriptions

The following level descriptions describe the types and range of performance that pupils working at a particular level should characteristically demonstrate. In deciding on a pupil's level of attainment at the end of a key stage, teachers should judge which description best fits the pupil's performance. Each description should be considered in conjunction with the descriptions for adjacent levels.

By the end of Key Stage 2, the performance of the great majority of pupils should be within the range of Levels 2 to 5, and by the end of Key Stage 3 within the range 3 to 7. Level 8 is available for very able pupils and, to help teachers differentiate Exceptional Performance at Key Stage 3, a description above Level 8 is provided.

Level 1

Pupils explore, with support, different types of information held on ICT systems. They use ICT to move objects on-screen for a defined purpose and use words and pictures to communicate ideas. They use the internet/related technologies safely, with support. They are aware of ICT in their world. They recognise the different parts of a computer system.

Level 2

Pupils consider, create and communicate information and ideas in different forms using text, images, pictures and sound. They find information from a given source using it to answer simple questions. Pupils enter information into a record with some assistance. They explore the effects of making changes in models or simulations. Pupils store and retrieve work with some assistance. They are aware of the use of ICT in the outside world.

Level 3

Pupils begin to organise their tasks and use ICT to create, organise, amend and present information and ideas. They find information from a range of given sources and use ICT to search, sort and/or graph data to follow simple lines of enquiry. Pupils understand how changing one variable affects another in models or simulations. They store and retrieve work independently. Pupils send and receive information electronically, with support. They understand the use of a range of input and output devices.

Level 4

Pupils broadly plan their tasks and combine a variety of information and media when creating and developing their ideas, with a sense of purpose and audience. They use ICT to select relevant information from a range of given sources, recognising that poor quality information and data yields unreliable results. Pupils begin to check the validity of data. They add and amend records in databases. They use ICT to explore patterns and relationships. They make simple predictions about how changing one variable affects another in models or simulations. They send and receive information electronically. Pupils discuss and begin to form opinions about some of the issues raised by the use of ICT and internet safety. They use the internet/related technologies safely in accordance with given guidelines. Pupils manage their workspace effectively. They show an awareness of the basic functions of hardware and software.

Level 5

Pupils plan their tasks for purpose and audience. They combine a variety of information and media when creating, refining and developing their own ideas and information. Their presentations are fit for purpose and meet the needs of their intended audience. They search for and select information from a range of sources, considering relevance, plausibility and accuracy. Pupils create their own databases and search or sort on more than one field to follow particular lines of enquiry. They create

their own models or simulations and investigate the effect of changing data. They use ICT to send and receive files electronically. Pupils form opinions about issues raised by the use of ICT and are aware of dangers associated with misuse of the internet/related technologies. They recognise the implications of using networks.

Level 6

Pupils plan their tasks in detail for specific purposes and audiences. They use ICT to create and refine their work using information from a range of sources, recognising the need for different styles for different audiences. They use ICT to check accuracy and plausibility by comparing information from different sources, making choices to meet the needs of a specific purpose or audience. They use databases to follow complex lines of enquiry and draw conclusions. They use models or simulations of increasing complexity, vary the rules within them and test hypotheses. Pupils have opinions about issues raised by the use of ICT and know the dangers associated with misuse of the internet/related technologies.

Level 7

Pupils plan independently for different purposes and audiences specifying resources and sources. They refine their choice of selected information to match the needs of a specific purpose or audience. Pupils identify the advantages and limitations of different applications and select and use suitable ICT facilities. They design a database making appropriate choices within a data-handling application, using its specialised functions. They design computer models and procedures, with variables, to meet specific needs. Pupils have informed opinions of legal and other issues raised by the use of ICT in the wider world. They use the internet/related technologies safely and independently.

Level 8

Pupils plan independently for a specific purpose and refine in the light of development. They make informed judgements on selected information, evaluating its plausibility, accuracy and relevance to purpose and audience. Pupils design and implement ICT systems for others to use. They create presentations for others to meet specific requirements. They discuss in an informed way the social, economic, ethical and moral issues raised by ICT.

Exceptional Performance

Pupils evaluate software packages and complex computer models, analysing the situation for which they were developed and assess their efficiency, ease of use and appropriateness, suggesting possible refinements. Pupils design, implement and document systems for others to use, predicting some of the consequences that could arise in use. When discussing their own and others' use of ICT, they relate their understanding of the technical features of information systems to an appreciation of how those systems affect wider social, economic, ethical and moral issues.

Tracking sheet

I have completed, printed out or made electronically available the following:

eSafety and DTP Tasks	Level 4	Level 5	Level 6	Level 7	Other
Be able to save to school network, name files/folders					
Be able to explain eSafety to a friend					
Be able to use email and reply/ attach file/ post and upload to TEAMS					
Be able to create a draft DTP document combining text and images (poster, presentation, website etc.)					
Use of WordArt, overlapping frames					
Images from two sources (internet and clipart)					
Basic understanding of copyright					
Awareness of designing for audience and purpose					
Header/ footer on most docs (title, name)					
Few errors in grammar and spelling					
Good understanding of design for audience and purpose					
Evidence of research, sound understanding of copyright					
Accuracy and plausibility					
Good design consistency (House style)					
Use of bullets, tables, text wrap					
Clear improvement of Final from Draft					
No spelling/ grammatical errors					
H and F on all Docs					
Thorough understanding of audience and purpose					
Excellent research and understanding of copyright					
Use of columns, captions, format and merge cells					
No errors in grammar and spelling					
Images edited in Paint program					
Independent learner – little or no help needed					

Tracking sheet

I have completed, printed out or made electronically available the following:

Modelling Tasks	**Level 4**	**Level 5**	**Level 6**	**Level 7**	**Other**
Understand the terms modelling and simulation					
Create a simple spreadsheet with few errors					
Format a spreadsheet, borders, cell shading, bold					
Use of a simple formula					
Use of basic data formatting, number/ currency etc.					
Can use a variable to change other cell values					
Few spelling errors					
Prepare for printing, landscape, r&c headers on, h&f					
Be able to explain the advantages/disadvantages of modelling/ simulation software					
Create a spreadsheet, mostly successful					
Format spreadsheet and a range (3) of data types					
Create a simple chart/graph with title and named axes					
Use of a simple formula and a function					
Can create a variable to change other values					
No spelling errors					
No errors in working spreadsheet					
Use of at least 3 formulas/functions					
Use of more complex formulas, COUNT, IF etc.					
Use of conditional formatting, autofilters					
Create 2 different charts, title and named axes					
Can explain the advantages of visual data (charts)					
Can explain absolute cell referencing (G2)					
Independent learner – little or no help needed					

Tracking sheet

I have completed, printed out or made electronically available the following:

Recording Data Tasks	Level 4	Level 5	Level 6	Level 7	Other
Can Add, Delete, Edit data in a given database					
Can insert/delete fields					
Can Sort data					
Can create a simple filter					
Can create a complex filter					
Few errors in spelling					
Effective formatting for printing off tables					
Can create an original database of at least 8 records and 6 Fields					
Can insert/ delete/rename Fields					
Use of a range of data types (3)					
Can create a sort for a good reason					
Can create a simple filter for a good reason					
Can create a complex filter for a good reason					
Use of mailmerge*					
No errors in spelling					
Can set up to print in landscape with h&f					
No errors in original database					
Formatting suitable for audience and purpose					
Use of database report feature with MATHS operation					
Can explain the use of primary keys for tables					
Use of autofilters/ validation rules (ACCESS only)					
Excellent understanding of Access or Excel/Publisher mailmerge					
Independent learner – little or no help needed					

*if attempting mailmerge extension work from Works database use Works Word not Office365 word. Alternatively, use an access or excel table and mailmerge with Publisher.