

Year 5: Databases

Databases

A database is a collection of data organised in such a way that it can be searched, and information found easily. Database usually refers to data stored on computers. A database can hold lots of information so it is essential that information can be effectively investigated. In 2Investigate, data can be searched and sorted in a variety of ways. It can also be presented pictorially.

Making a database collaborative allows lots of people to enter information into the database at the same time. This is a lot quicker than one person entering the data by themselves.

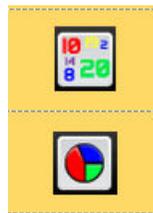
What you will learn by the end of the unit:

To learn how to search for information in a database.

To contribute to a class database.

To create a database around a chosen topic.

Key Images



Vocabulary

Avatar	An icon or figure representing a person in a video game, Internet forum, etc.
Binary tree (branching data-)	A way to sort information by dividing the information into groups based upon questions with yes or no answers.
Charts	Representing information in a pictorial form.
Collaborative	Produced by, or involving, two or more parties working together.
Data	Facts and statistics collected together for information.
Database	A set of data that can be held in a computer in a format that can be searched and sorted for information.
Find	Search for information in a database.
Record	A collection of data about one item entered into a database.
Sort, Group and Arrange	Different ways to sort information in a database so it is easy to read, understand and interpret.
Statistics and reports	To produce information about data in a database.
Table	Sorting information into rows and columns.

Year 5: Game Creator

Game Creator

A good game designer gives the player continuous challenges in a visually stimulating environment, each of which leads to another challenge, to keep the game challenging and fun. Evaluating your game as you make it allows you to think about ways in which it can be improved. Evaluation may also involve the views of other people who play your game. 2DIY 3D allows users to create a playing area, such as a maze, in 2D and then turn it into a 3D computer game. The aim is to avoid the 'baddies' and collect 'treasure'.

What you will learn by the end of the unit:

To set the scene.

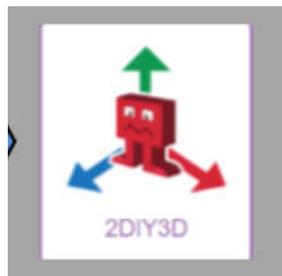
To create the game environment.

To create the game quest.

To finish and share the game.

To evaluate their and peers' games.

Key Resources



Vocabulary

Animation	Creating an illusion of movement
Computer game	A game played using a computer, typically a video game.
Customise	Modify (something) to suit an individual or task.
Evaluation	The making of a judgement about the value of something.
Image	In this case, a picture displayed on the computer screen.
Instructions	Detailed information about how something should be done or operated.
Interactive	Responding to a user's input on a computer or device.
Screenshot	An image of the data displayed on the screen of a computer or mobile device.
Texture	High frequency detail or colour information on a computer-generated graphic.
Perspective	Representing three-dimensional objects on a two-dimensional surface to give the right impression of their height, width, depth, and position in relation to each other.
Playability	A measure of either the ease by which a video game may be played, or of the overall quality of its gameplay.

Year 5: 3D Modelling

3D Modelling

CAD software is used by businesses to design 3D objects in a 2D environment. Some examples are; Architectural plans for buildings; designing layouts for interiors; designing objects such as packaging and designing mechanical components; designing shoes and clothing. You can design the object in 2Design and then turn it into 3D objects by printing the net and then cutting and folding this into shape. You could also convert the file into a format recognised by 3D printers.

What you will learn by the end of the unit:

To be introduced to 2Design and Make and the skills of computer aided design.

To explore the effect of moving points when designing.

To understand designing for a purpose.

To understand printing and making.

Key Resources



Vocabulary

CAD	Computer aided Design – A CAD computer program or app allows you to design a 3D object or environment in 2D and visualise it in 3D on the screen from many angles.
Modelling	The activity of making models.
3D	Something that has three dimensions; height, width and depth..
Viewpoint	A person's opinion or point of view.
Polygon	An object with at least three straight sides and angles, and typically five or more.
2D	Something that has only two dimensions; height and width.
Net	A pattern that you can cut and fold to make a model of a solid shape.
3D Printing	The action or process of making a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession.
Points	An exact position or location on a 2D surface.
Template	Something that serves as a model for others to copy.