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Computers in MTW

KEYWORDS

CAD
computer

hardware
software

Everyone today is familiar with computers. They play an important role in business, and can be very useful in preparing your project report for your exam.

Recent developments in CAD (computer-aided design) software have been introduced in schools. This software enables complex drawings to be produced quickly and easily.

HARDWARE AND SOFTWARE

Computer systems include the hardware (the parts that can be seen) and the software applications or programs that allow you to use the computer).



A computer system that includes a monitor, systems box, printer, speakers, keyboard and mouse

Word-processing software allows you to type up documents. SolidWorks® is the CAD modelling software used in most schools.

As you work with computers, you will save your work as files. It is always good practice to save (back-up) your work on a storage device like a memory stick, CD/DVD or hard disk.



You can use back-up devices such as a memory stick or external hard disk to save your work

SOLIDWORKS IN MTW

SolidWorks is a computer program that engineers and designers use to help them design and illustrate their work. In SolidWorks, the item or product is created as a 3D model in one or many parts. These parts are then put together in an assembly. Once made, the assembly is used to generate drawings on a sheet, which are then printed out.

3D models will help you to visualise your final piece. Changes are quick and easy to make to the models. The drawings are quickly produced once the model is made.

SolidWorks is a very useful tool when designing your project in year 3 and will assist you in gaining marks.

The teacher's CD-ROM contains a section dealing with SolidWorks. There are some simple exercises that can be done using the software. Also on the CD are examples of models of joints and projects.

Web Link

www.solidworks.com

Projects

- Project 1 Design and make a decorative container to store spare change securely
- Project 2 Design and make an object to hold and display a maximum of three tea lights
- Project 3 Design and make a slimline shelf to accommodate a telephone and accessories
- Project 4 Design and make a stand for displaying three of your favourite potted plants
- Project 5 Design and make a simple toy for a child. It should be colourful and be of interest to a child
- Project 6 Design and make a small desktop mirror with open storage for personal grooming items
- Project 7 Design and make a clock