**6.2 Learning through Computers**

A computer is a machine that can be instructed to carry out sequences of arithmetic or logical operations automatically via computer programming.

* Early computers were only conceived as calculating devices.
* Modern computers have the ability to follow generalized sets of operations, called programs.
* These programs enable computers to perform an extremely wide range of tasks.
* Conventionally, a modern computer consists of at least one processing element, typically a central processing unit (CPU), microprocessor, along with some type of computer memory.
* Peripheral devices include input devices (keyboard, mouse, joystick etc.), output devices (monitor screens, printers etc.), and input/output devices that perform both functions.
* Peripheral devices allow information to be retrieved from an external source and they enable the result of operations to be saved and retrieved.
* A complete computer including the hardware, the operating system (main software), and peripheral equipment required and used for “full” operation can be referred to as a computer system.
* This term may as well be used for a group of computers that are connected and work together, in particular a computer network or computer cluster.
* Computers are used as control systems for a wide variety of industrial and consumer devices.
* This includes simple special purpose devices like microwave ovens and remote controls, factory devices such as industrial robots and computer-aided designs, and also general purpose devices like personal computers and mobile devices such as smart phones.
* The internet is run on computers and it connects hundreds of millions of other computers and their users.

**Purpose of computers in Education**

* Computers are one of the most valuable resources in a classroom because they serve so many useful functions.
* One of the most common applications of computers in educations today, involves ongoing use of educational software and programs that facilitate personalized instructions for students.
* Programs like iReady use computers to assess students in reading and mathematics lessons that are designed to target the specific academic needs identified during diagnostic testing.
* **Computer** supported collaborative **learning (CSCL)** is a pedagogical approach wherein **learning** takes place **via** social interaction **using a computer or through** the internet.
* **CSCL** can be implemented in online and classroom **learning** environments and can takes place synchronously or asynchronously.
* This kind of learning is characterized by sharing and construction of knowledge among participants using technology as their primary means of communication or as a common resource.
* The study of computer supportive collaborative learning draws on a number of academic disciplines, including instructional technology, educational psychology, sociology, cognitive psychology and social psychology.
* Use of Internet and mobile phones serves as a motivated learning.
* Internet has made knowledge seamless and accessible and in this age of communication revolution, no one can afford to ignore it.
* Young students love the technology based learning, because it plays a big role in increasing our information based on various subjects.
* The transition from rote learning to tech-based education is clearly evident; we are bound to adopt it.
* Technology has brought about a huge transformation in education system and rote learning is likely to diminish in coming years.
* Today technology has arrived with a bang, and everyone who prefers a thorough learning is compelled to appreciate it.
* Right kind of education is provided nowadays only through computers, audio-visual aids, use of CDs/DVDs, e-mail learning etc.
* Thus, it is imperative to provide students the right kind of education through prevailing education system.
* E-learning ensures the data quality besides facilitating the development of content.
* The introduction of IT will not only aid the students but also the faculty, and as a result overall efficiency of the system is bound to improve.
* The young lot will certainly take more interest in the curriculum and will unleash their creativity.
* Everything is available at internet to make the best use of it.
* Beside the formal note-books and text-books, laptops will also be required for presentation up to a possible extent in near future.
* In such a situation teachers will also have to widen their knowledge base, as the students can now put up questions on any and every topic.
* Subject teacher is required to make a CD (fortnightly) of the delivered lectures. The CD should be placed in the audio-visual room in order to revise the completed lessons.
* CD will be a recorded asset for future use and will provide guide lines, if we opt for an award to good teachers.
* Technological advances have ensured that today no information is unavailable. Parents can also find out what is being taught is correct or not.
* Technological tools are bound to improve with the passage of time.
* We should remember that these are the tools which provide only the assistance to the teacher. These are not a substitution to a teacher.
* The fact is that our education system has not been able to cope up with the rapid evolution; our lack-luster attitude deserves amendment.
* With the introduction of technology based education, students competing with each other will increase their knowledge and confidence.
* It will increase their presence of mind and spontaneity that acts as a judge in quiz competitions and elsewhere.
* It also improves their analytical skills and gives them practical exposure.
* CBSC has advised heads of all affiliated institutions to set-up at least one class-room for each class in their school, equipped with technology to enable usage of digital instruction material.
* It will be a good beginning as online literacy is the first step towards digital information.
* It is imperative to search and identify the authenticity of the subject matter. A teacher trained in IT is thus required.
* Students should be given more practical exposure like visits to industrial establishments, research centres and museums, which will help them in increasing their knowledge and broaden their horizons.
* Students should be given proficiency awards including prizes in academics, sports and cultural programs.
* Installation of Smart-board in every class-room is required for improving the quality of teaching and overall academic scenario.
* Teaching through smart-board requires pre-planning of lessons before its delivery in the class-room.

***Only those teachers may oppose the proposed installation, who are not willing to work a bit extra, as they will have to prepare the lesson-plan at home. Yet decision is to be taken after consultation with teachers.***