**DEEPER LIFE HIGH SCHOOL**

**SECOND TERM E-LEARNING NOTE**

**SUBJECT: COMPUTER STUDIES CLASS: JS 1(BASIC 7)**

**SCHEME OF WORK**

**WEEK TOPIC**

**SUB-THEME: BASIC COMPUTER OPERATIONS AND CONCEPTS**

**1. Revision of last term’s work.**

**2 & 3 Computer Ethics**: (a) Computer room management ethics: maintaining dust free environment, appropriate lighting system, appropriate ventilation, and setting computer.

**4. Computer Ethics:** (b) Laboratory rules and regulations: - arrange chairs and tables in a comfortable manner

**5. Computer Ethics:** (c) Laboratory rules and regulation: Arrange the computers and their peripherals in an orderly manner (d) Health concerns of computer use

**SUB-THEME: BASIC KNOWLEDGE OF INFORMATION TECHNOLOGY**

**6 Use of IT:** (a) Communication; timing and control (b) Communication; information processing/management

7 **Mid Term Holiday**

**8. Use of IT:** (c) IT and society

**9&10. Revision**

**11-13. Examination**

**REFERENCES:**

* **HiiT Plc (2016) Computer Studies for Junior Secondary Education (JS1), HiiT Publisher, Nigeria Computer Society (NCS).**
* **Basic Science and Technology: Computer Studies for Junior Secondary Schools 1 by Wole Olatokun et al**

**Searchlights on Computer Studies for JSS, Bk 1 by Kayode Owolabi**

**WEEK 2-3**

**TOPIC: COMPUTER ETHICS**

**CONTENT:**

Computer room management ethics

**Sub-Topic 1: COMPUTER ROOM MANAGEMENT**

**What is a computer room?** **This is a room specially created for keeping computers and other peripheral devices.** It is also called computer laboratory. In designing this room, the components of a computer room must be put into consideration.

**Components of a computer room**

1. **Computer system**
2. **Furniture (computer tables and chairs)**
3. **Electric surge protector**
4. **Stabilizer**
5. **Air conditioner or ceiling fan**
6. **Printer**
7. **Scanner**
8. **Dust cover**
9. **Printing paper**
10. **Photocopy machine**
11. **Fire extinguisher**
12. **Multimedia speaker**
13. **Curtain**
14. **Uninterruptable power supply**
15. **Web camera**
16. **Projector**
17. **Interactive white board**

**What is computer room management ethics?**

**This refers to the basic rules and regulations governing the behavior of individuals while using computers in the laboratory.** As a result of the delicate nature of the computer, it is very important to take good care of the computer to make it work properly. Always keep your computer in a dust-free room. Clean it regularly using a soft, dry cloth. Never touch the monitor or any part of the computer with dirty hands.

**WAYS TO TAKE CARE OF YOUR COMPUTER**

1. Always make sure that the computer is kept in a well-ventilated area
2. Place the computer on a desk, not in a closed cabinet
3. There should be appropriate lighting in the computer room to keep the room well lit up.
4. The arrangement of the computer system should be done in a way that the user would not need to strain their neck, back or eyes.
5. Cables should not be left to litter the ground so as t avoid accident
6. Wipe desk or table tops, component casings and other exposed surface with a soft cloth or any recommended cleaning product intended for computer use
7. Do not eat or drink anything near your computer
8. Shutdown the machine properly before switching off the power outlet
9. Unplug the system when it is not in use for long.
10. The use of anti-glare is recommended when using computer, in order to protect the eyes.

**EVALUATION**

1. Define the following;
2. Computer room
3. Computer room management ethics
4. Mention five (5) ways to take of your computer
5. Mention ten (10) components of a computer room

**GENERAL EVALUATION**

1. State FIVE (5) reasons why it is necessary to take good care of your computer

2. Name the parts of the computer that tend to get dusty easily. How can you take care of them?

**READING ASSIGNMENT**

Search the textbook for computer laboratory ethics.

**WEEKEND ASSIGNMENT:**

**Objective:**

1. \_\_\_\_\_ is a set of moral principles that regulate the use of computers.

a. Computer Profession b. Computer behavior c. Computer ethics

d. computer users

2. \_\_\_\_\_ is a place where the teaching and learning of computer studies takes place. a. Computer laboratory b. Computer shop c. Computer factory d. Computer house

3. These are some of the components of an ideal computer laboratory except \_\_\_\_\_ a. white marker board b. printers c. chairs and computer system d. washing machine

4. Which of the following is NOT necessary when setting a computer laboratory?

a. Cables should not litter the ground b. Chairs and tables should be well positioned to avoid strain c. There must be a reading table d. Adequate ventilation

5. The use of a dust cover to cover a computer system when it is not in use is a computer laboratory rule. (True / False)

**WEEK 4 & 5**

**TOPIC: COMPUTER ETHICS**

**CONTENT**

- Laboratory Rules and Regulations

**SUB TOPIC: 1**

**RULES AND REGULATIONS OF THE COMPUTER LABORATORY**

1. Computer room should be kept tidy always by regular cleaning

2. Do not remove or load any software into the computer

3. The security should be very tight to prevent stealing of the equipment.

4. Eating: eating in whatever form should be discouraged.

5. No user should attempt to repair any faulty system but the attention of a qualified engineer should be called in the event of any faulty equipment.

6. All electrical appliances should be switched off at the end of each day’s activity.

7. Noise: noise of all form should be discouraged such as stereo set, sound set etc.

8. Always shut the door when coming in or going out.

9. On no account should anyone remove cable from the socket.

10. Always shut down the system properly and arrange the chair before leaving computer room.

11. Always cover the computer system after use.

12. Do not access any restricted files on the computer system

13. Lousy conversations and cell phones are not allowed in the computer laboratory

14. All users should record the use of computers in the computer logbook.

1. Users are prohibited to enter the computer laboratory except authorized by the instructor
2. Scan flash drives before using them
3. Report all problems related to the computer system to the instructor
4. Do not change the settings in the computer
5. Do not move any equipment from its original position
6. Smoking is not allowed in the computer laboratory
7. Internet facility is strictly for educational purposes only

**HEALTH CONCERNS OF COMPUTER USE**

Users are key component in any information system. Therefore, protecting users is just as protecting hardware, software and data. The wide spread use of computers have led to some important health concerns which are;

1. Repetitive Strain Injury (RSI): computer related RSI’s are the largest job related injury and illness in the United States today. These are
2. Tendonitis: inflammation of tendons due to some repeated motion or stress of that tendon.
3. Carpal Tunnel Syndrome (CTS) is inflammation of the nerve that connects the forearm to the palm of the wrist. Repeated or forceful bending of the wrist can cause CTS.
4. Long term computer work can cause Tendonitis or CTS.

**Factors that can cause these disorders include;**

1. Prolonged typing
2. Prolonged mouse usage
3. Continual shifting between the mouse and the keyboard

**Ways to prevent Repetitive Strain Injury**

Take frequent breaks during computer sessions to exercise your hands and arms

1. **Computer Vision Syndrome (CVS):** this is a disorder that has to do with the eyes due to a long term focus on the screen.

**Symptoms of CVS**

1. Sore
2. Tiredness
3. Dry eyes
4. Burning
5. Itching
6. Double vision

**Ways to prevent Computer Vision Syndrome**

1. Take an eye break every 10 to 15 minutes
2. Blink your eyes every 5 seconds
3. Use large fonts
4. If you wear glasses, ask your doctor about computer glasses
5. Adjust the lightening
6. Place your device about an arm’s length away from your eyes with the top of the screen at eye level or below

**EVALUATION**

1. Itemize five ways of caring for the computers
2. Mention five (5) rules that must be observed in the computer laborary

**READING ASSIGNMENT**

Read more on Computer Laboratory Management ethics

**WEEKEND ASSIGNMENT:**

**Objective:**

1. One of the following should not be found in a computer room
2. Chalk (b) Computer
3. UPS (d) Printer
4. Pick out the wrong statement from the following:
5. The computer room should be well lit.
6. Liquids like water should be kept away from the computer room.
7. Eating in the computer is allowed.
8. The computer room should be very clean.
9. \_\_\_\_\_\_\_\_\_\_\_\_ is used to protect the eyes when using the computer.
10. Nylon (b) Treated nets

(c) Anti-glare protection (d) Papers

**WEEK 6**

**TOPIC: ICT Application in Everyday Life**

**CONTENT:**

**Uses of ICT**

1. Communication
2. Timing and control
3. Information processing/management

**What is ICT?**  ICT is an acronym which stands for **I**nformation and **C**ommunication **T**echnology. It can be described as a diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. These technologies include;

1. Computer
2. Internet
3. Broadcasting technologies (radio and television)
4. Telephone

**USES OF ICT IN COMMUNICATION**

1. ICT is used to send information across to people using the electronic-mail (e-mail) through the internet.
2. Many people use the GSM (mobile phone) to communicate.
3. Audio and Video conferencing is also made possible through the internet. With video conferencing, people at various distant locations can discuss on different topics. Each of these people makes their contributions to the topic under discussion.
4. Chatting and instant messaging

**USES OF ICT IN TIMING AND CONTROL**

Many of the devices that are used in everyday life are controlled by small computers to save time. They are:

1. Washing machine
2. Air conditioning system
3. Programmable microwave ovens

Traffic lights are switched off and on according to programs running on computers which manage traffic flow through cities

1. Controlling equipment used for scientific research.
2. Monitoring and reporting on the status of security equipment.
3. Monitoring and reporting status of weather and other atmospheric activities.
4. Manipulating and controlling equipment used in aircraft, ships, oil rigs, Automated Teller Machines (ATMs), etc.

**USES OF ICT IN INFORMATION PROCESSING/MANAGEMENT**

ICT can be used in the following areas of information processing and management.

1. Typing letters, notes and other documents.
2. Distributing and sharing of information.
3. Keeping records and inventory, storing, retrieving and manipulating data and information.
4. Transmitting information.

**EVALUATION**

1. How are computers helpful in communication?
2. What are the uses of computers in information processing management?

**WEEK 7 (MID TERM HOLIDAY)**

**WEEK 8**

**TOPIC 2: ICT AND SOCIETY**

**CONTENTS**

1. ICT in Education
2. ICT in Banking Industry
3. ICT in Medical Sciences
4. ICT in Government

Many of us go through our daily routine without noticing how many times we come into contact with computers. Computer technology has become such a part of our daily lives that if it were taken away we would lead radically different lives. Information communication technology involves the use of modern communication channels to convey information. **The Global System Mobile – telecommunication (GSM), Facsimile (Fax), computers, television, satellite, communication, cellular networks, internet** are among the gadgets used for this.

**ICT in Education Industry**

ICT has really widened the scope of education. Computers are used to aid student learning through Computer Aided Instruction (CAI) and Computer Assisted Learning (CAL). CAI takes the form of:

1. **Drills:** This allows students to practice concepts through repeated questions.

*(ii) Tutorials:* which are self-instructional programs that guide the student through new materials, but which allow the student to move at his/her own pace. The student can repeat a lesson if he/she does not understand it the first time.

1. **Simulation:** Which are basically ‘what if’ analyses. These use sound, text and graphics (multimedia) to bring about an outcome based on a specific scenario. Topics on different subjects are on CDs and can be played on the computer by students. Students can then learn at their own paces. Degree and Masters Courses are also obtainable on through internet. These are made possible through on-line courses.

**ICT in Banking Industry**

The bank uses the high power of ICT equipments to handle wide variety of task such as:

* Keeping of customers accounts
* Processing of cheques
* Processing of deposit and withdrawals
* Money transfer
* Automated Teller Machine (ATM)

**ICT in Medical Sciences**

The versatility of computer and ICT equipment is most useful in medical profession. Doctors, nurses, pharmacists, physiotherapists, radiologists and researchers find computer to be very useful and indispensable tools. Many lives have been saved because of the use of computers.

**ICT in Government**

E-government has become a global phenomenon, especially in the western world. Information from the government is passed to the citizen’s logical decision much faster and accurate.

**ICT in Law**

Computers are revolutionizing legal practices rather than spending days researching related cases in legal case books, lawyers use keyboards to search through massive full text database containing more cases than in any law office’s library.

**Airlines**

An airline reservation agent communicates with a centralized computer via a remote terminal to update the database the moment a seat on any flight is filled or becomes available.

**EVALUATION**

1. How does ICT play an essential role in daily life?
2. Explain briefly on the use of computer in (a) Airlines (b) Law (c) Banking (d) Medicine

**READING ASSIGNMENT**

Search through the Internet or textbook and read the following topic:

1. Ancient method of information transmission
2. Modern method of information transmission