**Ratu Navula College**

**Year 12 Computer Studies 2021**

**Week 1: Lesson Notes & Activities**

**Lesson 36**

**Strand 12. 1 : Computer and Applications**

**S/ Strand 12. 1. 4: Environmental Issues, climate change and safe practices**

 **LO**: discuss ways how technology harms the environment.

Electronic waste-computers, office electronic equipment and other electronic devices which are broken and discarded by the original users

Ways that the technology can harm the environment:

* Pollution – air, water, heat and noise
* Consuming resources- coal, electricity which are consumed to use technology
* Waste- manufacturing technology creates large amounts of waste
* Disrupting ecology- clearing land and animals used to live to build factories and allowing pollution and contaminate food chain.
* Health hazards- use toxic materials that can harm our health

Techno Trash- also called electronic waste

* If we continue to throw away techno trash like regular trash, it usually ends up in a landfill
* These toxic materials can leak into the ground, they can contaminate the water we drink, plants we eat and the animals.

Review Exercise 4. 1

**Lesson 37**

**LO**: state the importance of electronics recycling

* E- waste has increased at rapid rate therefore are looking for ways to get rid of equipment in order to minimize information or identity theft
* Common replaced electronics include cell phones( every 22months), desktop computer (every 2 years), portable music player (every 2/ 3 years), DVD player (every 4/ 5 years), printer (every 5+ years), televisions (every 10+ years)
* By the end of 2015 it was estimated that there were 422 million unused and unwanted cell phones accumulating in people’s homes.
* Electronics are full of valuable materials like copper, tin, iron, aluminum, fossil fuels, titanium, gold and silver.
* These materials used can be recovered, reused and recycled including plastics, metals and glass.

**Lesson 38**

**LO**: discuss ways ICT can help tackle climate change.

* ICT can reduce manufacturing needs by replacing material goods with virtual products like online music downloads.
* They provide the means for virtual meetings (to reduce travelling)
* Intelligent transport system to cut emissions and traffic congestion
* ICTs are widely employed for environment and climate monitoring including weather forecasting.
* Internet is an important part is played by remote monitoring of Earth by satellite and by sensors on the ground and in the ocean.
* Monitoring can give data on information deforestation or crop patterns.
* ICT is also used to warn people on natural disaster.

**Lesson 39**

**LO**: Discuss ways cloud computing can protect the environment.

* Cloud computing (shared pool of configurable computer resources) can be used for sharing resources with less management effort.
* It a tool to improve business management, boosting productivity and cutting costs.
* ICT have helped protecting our environment.

**Lesson 40**

**LO:** discuss ways ICT can be used to protect our environment.

1. **An iPhone application that helps to recycle electronic waste**- the recycling website company helps people who want to recycle materials of any kind.
2. **Cardboard flash drives**- an eco- friendly alternative, the Russian developed disposable USB flash drives into sheets of cardboard.

**Week 1 Worksheet**

1. List what are recycled from scrapped electronics.

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1. State the effects of e- waste on the environment.

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1. State the importance of e- waste management.

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1. States some ways waste affect people’s health.

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1. What is e- waste?

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1. Explain how technology affects our environment.

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1. What is techno trash?

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1. State the most valuable recyclable component of a circuit board.

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