Option Subject: Engineering Technology

Kindly indicate route offered:
Applied

General introduction to the subject:
The aim of the applied programme in Engineering Technology is to provide learners with hands on experience related to the Industrial Environment. Throughout the programme, candidates are expected to apply skills, using tools / equipment and materials in order to gain knowledge on theoretical principals.

List topics studied:
a. Manufacturing Processes
b. Mechanical Systems
c. Electrical and Electronics Systems

Class activities involved:
Applied exercises where students experiment and practice with tools, equipment and materials in order to understand concepts and systems.

Homework assigned:
Research work related to the work being covered during the lesson and in preparation for other lessons and / or assignments.

Assessment given:
Each unit will be assessed by means of three assignments each year, one of which must be an assessment conducted within a controlled school environment. The other two assignments involve hands on projects and are to be covered during school hours.

List skills acquired studying the subject:

a. Demonstrate an understanding of Health and Safety practices while working in an engineering context.
b. Make use of measuring and marking out tools on materials with specific properties.
c. Make appropriate use of tools and equipment used for cutting materials.
d. Make use of permanent and non-permanent joining processes.
e. Finish a product according to set requirements.
f. Manufacture different threads according to given specifications.
g. Assemble pulleys and sprockets according to given ratios.
h. Use 3D printers to construct gears and ratchets according to given specifications.
i. Assemble cams and cranks according to given specifications.
j. Use different sub-mechanical systems to construct a mechanical system.
k. Demonstrate an understanding of the principles of electrical and electronic components.
l. Manufacture a PCB.
m. Construct electrical lighting circuits.
n. Construct electrical power circuits.

List skills required to study the subject:
a. Learns by doing
b. ICT skills

c. Being able to work in a team *d. Good level of applied science* *e. Willing to carry out hands on activities related to the use of Engineering tools*
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My Journey Option Subjects Info Sheet

(*Each field should be between 50 – 60 words)*