

BA SANGAM COLLEGE
YEAR 12
APPLIED TECHNOLOGY
WORKSHEET 3

(Attempt the questions at the back of your exercise book)

Design Problem: Providing comfortable furniture to guests is what many hotel owners strive for, however, the storage of these furniture often can create a problem to the hotel owner.

Design Brief: Design a pool-side chair for guests to use while sunbathing around the hotel's swimming pool.

Specifications: The furniture should:

- be made of readily available materials;
- cater for two people;
- be portable;
- be easily folded using mechanical joints for limited storage space;
- have a headrest that can be raised and lowered.

(a) Draw two possible solutions.

(b) Draw the Final solution

(c) Draw the Detail drawing between any two components or joints

(d) Explain how the pool-side chair will be stored.

(e) Evaluate

Safety	Material used	Environmental factor

Design Problem: A small village in the interior of Viti Levu requires electricity for their lights, refrigerators and other electrical appliances.

Design Brief: Design a simple mechanical or electrical device that will make use of sunlight, water or wind to produce electricity.

Specification: The device should:

- be made of readily available materials;
- have fittings and members that can be dismantled and refitted;
- have electrical and mechanical parts that comply with OHS standards;
- have mechanical and electrical parts that are replaceable and serviceable;
- have a storage voltage of 12 volts (DC)

(a) Draw two possible solutions.

Possible solution 1

Possible solution 2

(b) Draw the Final solution

(c) Draw the Detail drawing between any two components or joints

(d) Explain how to preserve the structural parts of the device

(e) Evaluate

Safety	Material used	Environmental factor