

MARINA INTERNATIONAL SCHOOL

DESIGN & TECHNOLOGY SCHEME OF WORK

FORM 2 - TERM 1

WEEK	TOPIC	TOPIC DETAILS
1.1	Construction of plane figures	Construct quadrilaterals and regular polygons
2.1	Mathematical patterns	Construct the following stars: 5-point, 6-point, 7-point and 8-point.
3.1	Mathematical patterns	Construct square patterns
4.1	Mathematical patterns	Construct simple logo involving shapes
5.1	Inscribed circles and circumscribed circles	Construct the inscribing circle to a triangle
5.2	Inscribed circles and circumscribed circles	Construct the circumscribing circle to a triangle
6.1	Radiused corner	Construct an arc to blend with two lines meeting at right angle. (RADIUSED CORNERS).
7.1	Radiused corner	Construct an arc to blend with two lines meeting at any angle. (RADIUSED CORNERS).
8.1	Tangency 1- straight lines	Construct a tangent at a point on a circle or arc
8.2	Tangency 1- straight lines	Construct a tangent from a point outside a circle to the circle.
9.1	Tangency 1- straight lines	Construct a common external tangent to two equal circles

WEEK	TOPIC	TOPIC DETAILS
10.1	Construction of symbols and everyday objects	Construction of road symbols- T-junction, crossroads, mazes, car parks, directional arrow-turn etc.
11.1	Energy	Know and understand the different mechanisms for conversion of energy from one form into another
12.1	Energy	Make flow diagram of energy conversion from one form into another e.g. electrical energy-electric bulb-heat & light
13.1	Energy	Know and understand RENEWABLE and NON-RENEWABLE energy sources
14.1	Energy	Know that during energy conversion, there are losses through friction, heat, sound and light leading to inefficiency of appliances or equipment.
15.1	REVISION	REVISION

DESIGN & TECHNOLOGY SCHEME OF WORK

FORM 2 - TERM 2

WEEK	TOPIC	TOPIC DETAILS
1.1	Friction	Define friction as a force and the unit of measurement of force
2.1	Friction	Know and state the advantages and disadvantages of friction
3.1	Friction	Know and state the effects of friction on moving parts and the mechanism in general
4.1	Friction	Know and state high and low frictional materials
5.1	Friction	Know the meaning and purpose of lubrication and state the different type of lubricants.
6.1	Motion and mechanism	Define motion and state, through line sketches, the types of motion
7.1	Motion and mechanism	Define mechanism as the working part of a machine
8.1	Motion and mechanism	Know and understand the different type and principles of simple mechanisms including: belt drive, chain drive, gear drive, cams, screw threads etc.
9.1	Motion and mechanism	Transmission of motion by force or power in mechanisms
10.1	Motion and mechanism	Know and make sketches of conventional graphical representation of belt drives, chain drives and gear drives
11.1	Motion and mechanism	Maintenance of simple mechanisms including regular cleaning and checking of parts.

WEEK	TOPIC	TOPIC DETAILS
12.1	REVISION	REVISION
13.1	REVISION	REVISION

DESIGN & TECHNOLOGY SCHEME OF WORK

FORM 2 - TERM 3

WEEK	TOPIC	TOPIC DETAILS
1.1	Graphic and packaging	Simple construction of NET or DEVELOPMENTS packing of products
2.1	Graphic and packaging	Construction and production of paper items like bags
3.1	Graphic and packaging	Lettering and numbering on logos
4.1	Working materials	<ul style="list-style-type: none">• Know and state the four main processes in shaping or working material as:<ul style="list-style-type: none"><input type="checkbox"/> WASTING<input type="checkbox"/> FORMING<input type="checkbox"/> CASTING/MOULDING<input type="checkbox"/> FABRICATION
5.1	Working materials	Know the simple wood, metal and plastic joints and their sketches
6.1	Working materials	Know and sketch the textural representations of metal, wood, plastic, glass, and rubber
7.1	Working materials	Know and state the common adhesives and their uses
8.1	Project	<ul style="list-style-type: none">• Simple projects involving:<ul style="list-style-type: none"><input type="checkbox"/> Metal<input type="checkbox"/> Wood
9.1	Project	<ul style="list-style-type: none">• Simple projects involving:<ul style="list-style-type: none"><input type="checkbox"/> Plastic,<input type="checkbox"/> Card/paper

WEEK	TOPIC	TOPIC DETAILS
10.1	Field trip	Pay visit to relevant areas related to design and technology
11.1	REVISION	REVISION
12.1	REVISION	REVISION