Long Term Plan

Date: July 2016

Year Group: 10

Content/Topic: Corporate Bag Project Making

Assessments: At the end of each unit of the project [four units]

Homework: Bi-Weekly

Subject Aim:

- To engage students in a rewarding practical subject that is concerned with all aspects of how we live and is linked to our intellectual, emotional and physical needs.
- To offer opportunities which are fun, practical, challenging and rewarding
- To develop a range of designing and making skills which are readily transferable to higher level study, apprenticeships or the world of work.
- To achieve as high a grade as possible at GCSE.

Learning:

In y10 students will be engaged in the first year of the OCR Design & Technology Graphics.

The first year embeds a range of theoretical elements and engages students in designing and making the first project a prototype trophy [worth 30% of the final overall mark.] and producing a portfolio of supporting research and design work.

Summer 2	Corporate Bag Project	• Disassembly – reprocessing materials for use in new products • REUSE Products that can be reused for either the same or a new purpose • Products that can be adapted to suit an alternative use. REDUCE• Life cycle of a product(s)/Eco footprint.• Built-in obsolescence.• Energy and waste of production process.• Materials – waste. REFUSE • Issues relating to sustainable design.• Materials we should refuse to use. RETHINK• How it is possible to approach design problems differently. An existing product that has become waste, e.g. utilising the materials or components for another purpose without processing them. REPAIR• Products that can/cannot be repaired.
Autumn 1	Corporate Bag Project	SOCIAL ISSUES • Social development, through recognising the need to consider the views of others , including people with disabilities , when designing or discussing designed products MORAL ISSUES • Conditions of working. • Protecting the safety of users of products. • Ethical trading initiative (ETI).

		• Anthropometrics and ergonomics. • Signs and symbols giving valuable information about materials products and safety issues.
Autumn 2	Corporate Bag Project	CULTURAL ISSUES . Looking at, responding to and valuing the responses of others to design solutions.• The impact of different cultures on modern products. ENVIRONMENTAL ISSUES• Understand and be able to select materials (including smart and modern materials) that are both suitable and sustainable.• The reduction in the common use of chemicals and materials dangerous to the environment i.e. Bleaches,CFC's and Toxic materials• Carbon footprint – transportation of materials and goods, energy usage in manufacture.• Carbon offsetting. • The need to dispose of redundant products and their packaging in a safe and environmentally friendly way.
Spring 1	Corporate Bag Project	DESIGN ISSUES • Identify how good design and product choice improves the quality of life • Examine the way that designers respond to changing styles, taste, technological advances and environmental issues. • Eco-design. The whole system of looking at a product from design to finished article, it's use of materials and energy • The globalisation of products.
Spring 2	Corporate Bag Project	Materials The general classification of graphic materials.• Paper – sizes and types and their suitability for different situations • Card and Board Foam Board – its nature and properties • Sheet Plastics (up to 1mm thick) – their suitability for different situations; suitability of thermoplastic sheet for line bending and vacuum forming. • Corriflute • Styrofoam
Summer 1	Corporate Bag Project	Physical and aesthetic properties of graphic materials • Hardness, toughness, strength, flexibility, impact resistance, strength to weight ratio and aesthetic qualities • Recognise the importance of understanding the physical and aesthetic properties of graphics materials when selecting a material for a specific use • The purpose of self and applied finishes protecting, preserving and/or enhancing the appearance of products, including: laminating; spirit varnish; ultra violet (UV) lacquer; embossing; foil application
Summer 2	Corporate Bag Project	Joining materials • Joining methods, including PVA adhesive, spray adhesive,solvent cement, hot melt glue (glue gun), epoxy resin, gluesticks, single and double-sided adhesive tape • Pre-manufactured components including Velcro, double sided sticky pads, paper fasteners, eyelets, press fit 'click' fasteners, Clic rivets (plastic rivets), and their suitability for different situations. 'Smart' and modern materials • Including – Polymorph, Thermochromic inks, pigments and film, Photochromic inks and pigments, Phosphorent pigments, Fluorescent pigments • Be aware of developments in nanotechnology as they emerge, for example NanoComposites, NanoCrystals, NanoClays, NanoStructured materials, NanoParticles and NanoTubes and how they are used in products such as glues, packaging, paints, coatings, displays and fabrics

Across all terms the following will be considered as part of the preparation and completion of the Controlled Assessment tasks

Design and generate and record a range of innovative design solutions for a specific task/user need using a range of graphic techniques	Evaluate and modify ideas with consideration to creativity and sustainability	Consider the initial task, the need to be met	Justify choice and rejection of ideas	Select and justify materials when designing and making products	Understand the purpose of prototyping when designing and making products	Identify specific ergonomic and anthropometric requirements within a product	Product planning Choose and prepare materials economically	Plan work to make best use of materials, components, equipment and resources