Year 7 Design and Technology Vocabulary List

(Tier 2 and Tier 3)

CAD/CAM - computer-aided design/computer-aided manufacturing (CAD/CAM) is a combination of two terms CAD and CAM to describe the process that is used to design and manufacture prototypes, finished products using computers.

Coniferous – this type of tree bears cones and has needle-like or scale-like leaves that are typically evergreen. Conifers are of major importance as the source of softwood, and also supply resins and turpentine.

Deciduous - the term deciduous means "falling off at maturity" and "tending to fall off", in reference to trees and shrubs that seasonally shed leaves, usually in the autumn and grown new ones in the spring. These are used in the manufacture of hardwoods.

Evergreen – refers to plants and tress which have foliage that remains green and functional through more than one growing season. (See softwoods)

Hardwood – these come from deciduous trees which take a long time to grow, around 60 years (sometimes up to 100). This means that they are rarely planted and very expensive.

Polymer - long chain molecules made from small repeating units called monomers. Polymers occur naturally, but can also be manufactured. Synthetic polymers are better known as plastics and have a wide range of uses.

Renewable - a natural resource or source of energy that is not depleted when used.

Softwood – comes from coniferous trees. They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material.

Sustainability - sustainability is a social goal about the ability of people to co-exist on Earth over a long time. It focuses on resource efficiency and the use of environmentally friendly materials to develop products and processes.

Thermoforming - these polymers can be heated and formed repeatedly. They are pliable and recyclable

Thermosetting - these polymers do not melt when heated, rather they tend to char and burn, but they are resistant to much higher temperatures than thermosetting

polymers. They are used to make electrical plugs, casing for electrical appliances and in other applications involving heat and electricity.