VCE GLOSSARY LIST (This list will be added to as we work on the last area of study)

**DEXTRINISATION-** The browning of starch foods when dry heat is applied

**GELATINISATION-** The swelling and consequent thickening of starch granules when they are heated in water

**SYNERSIS-** This occurs on cooling and standing when many gels lose liquid and shrink. This is known as weeping or reverse of gelatinisation

**GLUTEN-** The main proteins in wheat (glutenin and gliadin) which is activated with moisture and mechanical action or kneading to form gluten. It is important for the production of the open texture and structure of bread. Air gets trapped between the strands of gluten

**ENZYMATIC BROWNING-** The process that occurs when the enzymes in cut or peeled fruits cause browning when exposed to the oxygen in the air(oxidation).

**PECTIN-** A polysaccharide, with gum like properties found in the cell walls of fruit. It is released on cooking and reacts with sugar and acids to forma gel.

**CASEIN-** The protein present in the curds of the milk.

**LACTOSE-** The CHO or sugars present in milk

**CHEESE-** Made from the curds of milk which are separated from the water and lactose or whey.

**COAGULATION-** This occurs when proteins are either heated or agitated and are changed from a liquid to a solid.

**COLLAGEN-** A structural protein in meat(colla gen and elastin are both connective tissues ; it forms gelatine when heated in water, gives slow cooked meats the gelatinous texture

**HYDROLYSIS-Large molecule such as collagen in red meats breaks down into smaller molecules, gelatins with addition of water and heat and would be assisted with an acid or alkali. This makes meat tender when it has been slow cooked (braised)**

**HYDRATION- Large molecules e.g glutenin and gliadin mix with water and sped up if heat applied means water binds to the large molecule, this swelling of these two proteins forms the gluten( without breaking down the original proteins)**

**ENZYMES- Proteins that act as catalysts that is they allow chemical reactions to occur without changing themselves (maintain their chemical structure)e.g when the enzyme reanin (rennet) is added to warmed milk it reacts with the proteins in the milk (caseinogen, lactalbumin and lactoglobin). These proteins denature and coagulate to form curds (cheese) changing their chemical structure but the reanin enzyme is unaltered.**

**EMULSION-** When two liquids which do not naturally mix are combined together in solution. E.g vinegar and oil in a mayonnaise

**SUPERSATURATED SOLUTION**-Sugar dissolves in water to form a solution, but it can only dissolve a certain amount (saturated), however if heat is applied more sugar can be dissolved. (higher the temperature, the more sugar that can be dissolved, water evaporates forming a more concentrated solution, allowing more crystals to form as it cools (more crystals means a finer texture)

**CRYSTALLISATION**-Is the formation of crystals from a supersaturated solution

**BLIND BAKING-** To cook a pastry shell before the filling is added: usually a heavy, dry product such as beans or rice to weigh the case.

**LIPIDS-** The group name for fats and oils.

**HYDROGENATION-** The chemical process which converts unsaturated fats into saturated fats.

**SATURATED FATS-** From an animal origin and solid at room temperature. Found in fatty meats, some dairy products, and palm and coconut oil.

**Monounsaturated Fats-** Found in large proportions in olives, olive oil, canola oil, nuts and avocados.

**Polyunsaturated Fats-** Large amounts of these fatty acids are found in vegetable oils and margarines.

**Maillard Reaction-** A browning reaction which occurs when sugar and protein are present in the same food and heat is applied.

**SIMMERING-** Not true boiling as the temperature is around 85C and bubbles rise slowly up the sides of the pan

**CARAMELISATION-** The process which occurs when sugar solutions or the sugars in the fruits are strongly heated. These sugars are converted to a brown substance.

**CONDUCTION-** When heat is transferred from one molecule to another by collision or movement. It occurs when there is direct contact with a heat source, such as the base of a saucepan with the direct flame of stove or electric hotplate. Dry frying is best example

**CONVECTION-** When the molecules in liquids or gases move from a warmer area to a cooler one. Boiling water is convection even though conduction heats the pan.

**RADIATION**- Heat rays pass directly from source to an object, toasting bread in toaster, toasting marshmallows on fire, barbequing

**WHOLEGRAIN-** The cereal which has the bran, endosperm and the germ intact

**YEAST-** A microscopic single-celled organism that reproduces by budding, in the presence of CHO, moisture and warmth.

**MOIST COOKING METHOD: Poaching,steaming, boiling, stewing**

**DRY COOKING METHODs- Roasting baking, grilling, shallow or deep frying**

**Homogenisation-** This process breaks the globules of fat into minute particles so that the cream does not rise to the surface of the milk.

**PASTEURISATION-** This process destroys pathogenic, or disease bacteria and also extends the shelf-life of milk, while having a limited affect on the flavour, usually heating to 72 degrees C and then cool down rapidly to 4 degrees C

**Ultra High Temperature-** This is a type of milk which has undergone temperature processing of heating the milk to approximately 135C for 2-3 seconds.

**CONTAMINATION-**can be defined as any substance or object in food that makes the food harmful or objectionable (physical-Hair, bandaids, chemical-cleaning productssuch as bleach or pesticides and biological such as bacteria, yeasts or moulds

**POTABLE WATER**-water acceptable for human consumption

**FOOD SPOILAGE-** Is the end result of changes to the physical and chemical properties of food that make it unpleasant or unsuitable for eating

**POTENTIALLY HAZARDOUS FOODS**-Are foods that are neutral or slightly acidic that are high in moisture, contain protein or carbohydrates and are likely to support the growth of food-poisoning bacteria e.g milk, milk products cheese, egg products, meat, fish, poultry, cooked rice and pasta

**CROSS CONTAMINATION-** This involves the transfer of harmful bacteria from uncooked or raw food to food which has already been cooked or prepared.

**BACTERIA-** Single celled micro organisms that can cause food poisoning by being consumed live in food or through the toxins they produce once ingested.

**DANGER ZONE-** The temperature range between 5C and 60C in which most bacteria will grow, provided they have enough food and moisture.

**AERATE-** To incorporate gas or air into a mixture. This may be accomplished by a number of ways and should result in increase in volume of mixture.

**CHALAZA-** The protein strands attached to the egg yolk that hold it in the centre of the egg.

**ALBUMIN-** A simple protein found in eggs and milk. Refers to the egg white.

**BIND-** To use milk, cream, or egg in a mixture to help hold the ingredients together.

**DENATURATION-** The change in the nature of protein where the protein molecules are untwisted as the peptide bonds between atoms are broken. It may occur due to heat, acid or alkali or by whipping.

**BLANCH-** To plunge food into boiling water and bring the water back to the boil.

**CANNING-** A preservation technique whereby food is heated in a sealed container to destroy micro-organisms.

**CARETENOIDS-** Yellow, orange, and red pigments found in food. Responsible for the colour in carrots, corn and citrus fruits.

**DIETARY FIBRE-** A complex CHO found in plant foods that cannot be digested by human enzymes, but it makes a valuable contribution to health.

**REFRIGERATION-** The preservation of food through storage at temperatures between 2C and 7C.

**GERM-** The embryo of the cereal grain(contains the B group vitamins and most of the oil

**ENDOSPERM-** The starchy inner part of the cereal grain. Starch and protein

**BRAN-** The seed coat of a grain and the main source of fibre in cereals