

## Revision sheet for test 2-----Principles of Nutrition

- Refresh your memory by using the attached recipe for LEMON DRIZZLE CAKE
- **Macronutrients** include proteins, fats, carbohydrates, Macro = Big needed in large amounts...
- **Micronutrients** include Vitamins, Minerals and Trace elements, Micro = Small needed in smaller amounts...
- Carbohydrates = ENERGY  
eaten > broken down into glucose > absorbed into bloodstream > used for energy -Carbohydrates should provide 50% of the body's energy. Too much carbohydrate = stored as body fat
- Simple Carbohydrates (known as sugars) Energy is released quickly e.g. sugar, pasta, white bread ,cereals
- Complex Carbohydrates Energy is released slowly e.g. nuts, potatoes, bananas, brown bread.
- NSP /fibre is not digested by the body, but helps with digestion and prevents constipation.
- **Fat soluble vitamins**- vitamins that dissolve in fat. This includes vitamins A, D, E AND K.
- **Water soluble vitamins**-vitamins that dissolve in water. This includes B group vitamins and vitamin C.
- Vitamin B1 **Thiamin**
- Vitamin B2 Riboflavin
- Vitamin B3 niacin
- **Vitamin C Ascorbic Acid**—**Found in** Fruits especially citrus fruits such as oranges and lemons. It Helps to absorb iron from other foods, Produces collagen which makes connective tissues bind cells together in the body. Is an anti-oxidant
- Vitamin A and D and K are not destroyed by normal cooking processes.
- All B vitamins are destroyed by cooking in water. The loss can be reduced by steaming vegetables or using the water the vegetables have been cooked in to make gravy or sauces.
- Vitamin C is destroyed by exposure to heat and water.
- Vegetables should be as fresh as possible, prepared the last minute and cooked in as little water as possible, for as short a time as possible. Steaming is the best way to preserve most of the vitamin C.

- **Calcium found in:** Dairy products milk and cheese. Added to white bread by law, Oily fish, green veg, nuts and seeds. It Works with vita D to make strong bones and teeth. Helps with blood clotting
- **Iron Found in:** Liver, Red Meat, Beans, Nuts, green veg, egg yolk, and lentils, chocolate. Needed to make haemoglobin which gives blood its red colour. Vit C is needed to help with the absorption of iron in the body.
- **Saturated Fats** The “bad” fat Solid at room temperature ‘Stick the walls of arteries. Comes mostly from animal products- cheese, butter, milk and meat fats
- **Unsaturated Fats** The “good” fats - Liquid at room temperature. Do not ‘stick’ to the walls of arteries. Comes mostly from vegetable sources -vegetable oils, whole grains seeds, nuts, avocado.....and fish.
- If we do not use up the energy provided from fat we eat it will be stored as fat in our body and we will gain weight. Too much can be stored in the liver and cause health problems. Can increase the risk of a stroke. Can raise blood cholesterol levels and increase the risk of heart disease. Hydrogenated fat can increase the risk of cancer, diabetes, obesity and bone problems.
- Protein foods are made up of small units called amino acids that are linked together. When heated the links change. Protein is a micronutrient
- Protein is needed for growth, repair and maintenance of the body to make enzymes and hormones and is a secondary source of energy.
- Proteins are made up of amino acids.
- There are 9 essential amino acids. Foods containing these are known as HBV proteins.
- HBV proteins are found in meat, fish, eggs, milk, cheese, and soya.
- LBV proteins are found in cereals, peas, beans, lentils, nuts and seeds.
- If we do not have enough protein we will become thin and weak.
- Babies, children, teenagers, pregnant women and lactating mothers need more protein than adults
- High biological (HBV) proteins- foods that contain all the essential amino acids.
- Low biological (LBV) protein- foods which contain some of the essential amino acids.

