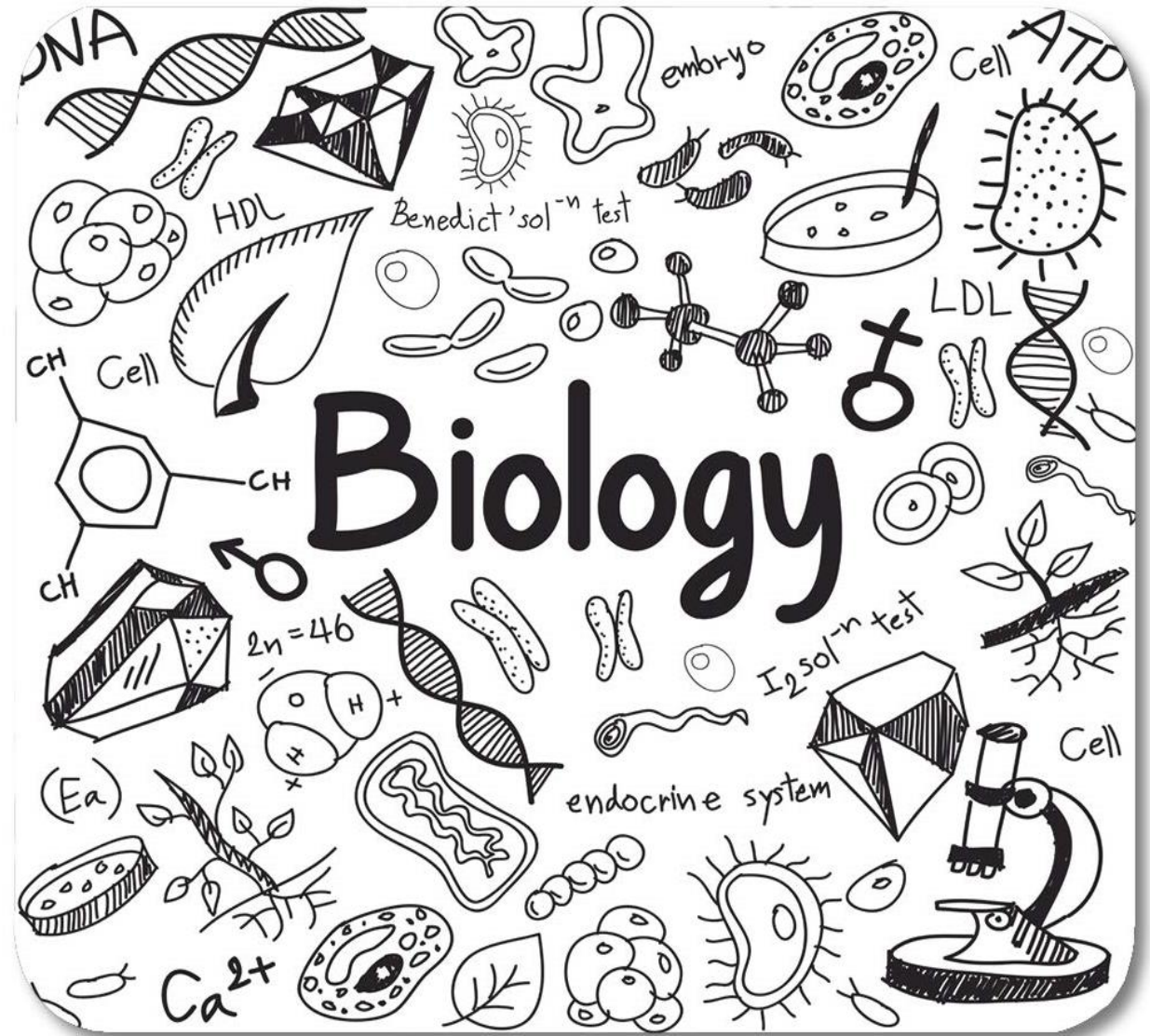




The National
Orthodox School
Shmaisani

Lesson : A balanced diet .
Scholastic Year: 2022-2023
Grade: 7CS



Objective : understand what a balanced diet is .

Resources :

Book pages 96 and 97

What is a balanced diet ?

It is a diet that contains the right amounts of all the nutrients your cells need to function properly , **to get a balanced diet you have to eat a wide variety of foods.**

A balanced diet

What is a balanced diet?

To stay healthy you need a balanced diet. This is a diet that contains the right amounts of all the nutrients your cells need to function properly. To get a balanced diet, you have to eat a wide variety of foods.

Nutritional requirements vary from country to country. They are higher in colder places and where people get more exercise. They are also different for males and females and different age groups. But some recommendations are the same for everyone. Your diet needs to replace the energy you use and give you a suitable mix of proteins, fats, and carbohydrates.



Proteins :

It should come from a variety of different foods , each type of protein is made from different amino acids .

Fats :

There are two main types of fat :

Saturated : processed food are often high in it .

(they increase the risk of heart disease)

Unsaturated : found in fish, nuts ,vegetable oil.

(these are better for your health)

Note : another 2 types of essential fatty acids that the cells need but cannot make them are omega -3 and omega -6

7.3

A balanced diet

Objective

- Understand what a balanced diet is

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Proteins

Scientists estimate that 10–13-year-olds need 34 g of protein per day. It should come from a variety of different foods. Each type of protein is made from different amino acids. Our cells can make some of them, but there are others we can only get from food.

Meat, eggs, soya beans, and dairy products supply all the amino acids we need in the right proportions. Most plant products need to be combined to supply a full set of amino acids.



↑ Soya beans supply more protein than any other crop per square metre of land.

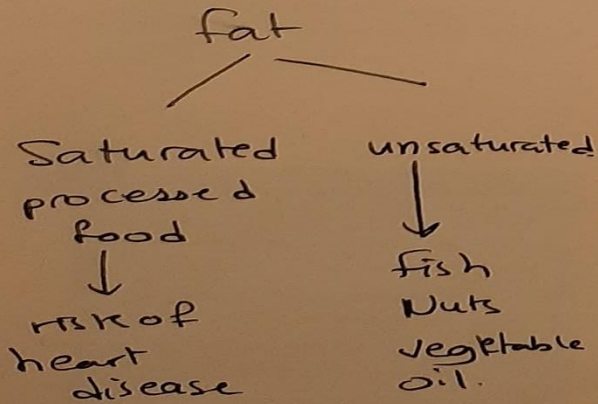
Fat

Fats should make up 20–30% of the food you eat. They supply more than twice as much energy per gram as carbohydrates. They also contain some essential vitamins.

There are two main types of fat, saturated and unsaturated. Processed foods are often high in saturated fat. You should minimise the amount of these you eat. They increase your risk of heart disease. Fish, nuts, and vegetable oils contain unsaturated fats, which are better for your health. Fats contain fatty acids. Two types of fatty acid are essential. Your cells need them but can't make them. They are called omega-3 and omega-6 fatty acids.



↑ Fish are a good source of essential fatty acids.



Carbohydrate

You should get about 60% of your energy from carbohydrates. As many of these as possible should come from fruits and vegetables because these also give you plenty of vitamins, minerals, and fibre. The rest should come from starchy foods like rice, cassava, and bread.



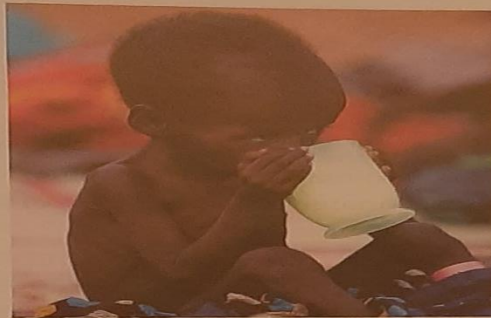
← Vegetables provide carbohydrates, vitamins, and minerals.

Malnutrition

Many people don't have a balanced diet. They suffer from **malnutrition**. Some people don't get enough energy and nutrients to function normally. They can't grow to their full height and they suffer health problems.

Others eat too much. Their bodies store this extra energy as fat. The excess fat makes them more likely to suffer from heart disease or diabetes when they are older.

Sweet food and fizzy drinks cause another problem. Their sugar coats our teeth and gums and encourages microbes to grow there. Some of these microbes convert the sugar to acid which causes tooth decay.



~~Obesity~~

Calculating how much food you need

On average, students need to eat around 2000 kilocalories per day, which is about 8000 kilojoules (kJ) per day. Each gram of carbohydrate supplies 16 kJ, and 60% of your energy should come from carbohydrates, so we can calculate the recommended mass of carbohydrate you should eat each day.

$$\begin{aligned} \text{Mass of carbohydrate recommended} &= \frac{60}{100} \times \text{energy needed} \div \text{energy supplied} \\ (\text{g per day}) & \quad (\text{kJ per day}) \quad (\text{kJ per g}) \\ &= \frac{60}{100} \times 8000 \div 16 = 300 \text{ g} \end{aligned}$$

- 1 Which type of nutrient should you eat most of?
- 2 Explain why we should get our proteins from a variety of different foods.
- 3 Rice and beans are often eaten together. Together they supply all the amino acids we need. Explain what amino acids are and why we need them.
- 4 Eating too many fats can damage your health. Give two reasons why it is essential to eat some fats.
- 5 Give two reasons why eating too many sweets can damage your health.
- 6 **Extension:** fat supplies 37 kJ per g. How much fat would you need to eat to get 40% of your daily energy requirements?

- A balanced diet contains every essential nutrient, in the correct proportions.
- The body stores energy foods that it can't use straight away as fat.
- Eating sugar can lead to tooth decay.

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- 6 **Extension:** fat supplies 37 kJ per g. How much fat would you need to eat to get 40% of your daily energy requirements?

1. You should eat more carbohydrates than other nutrients.
2. Each type of protein contains a different combination of amino acids, so we need to eat a variety of proteins to get all the amino acids we need.
3. Amino acids are small molecules that can be joined together to form the proteins needed to build and repair cells.
5. Eating too many sweets can cause tooth decay and lead to obesity.

Workbook page 44:

Q2 . a The missing values are:

Type of nut	Unsaturated fat (g/100 g)
brazil	47
coconut	7
almond	35

b. A patient at risk of heart disease should eat almonds because they have least saturated fat.

Q3. Chocolate is high in sugar which causes tooth decay, and saturated fat which has a high energy content. Too much saturated fat could cause heart disease .

Q4. To take different types of amino acids .