

# Healthy Bodies

## Learning Objective:

To investigate some different food groups and find out why a variety of foods is important for a healthy diet.



Do you know what these different food groups are and why they are important for our bodies?

protein

carbohydrate

fat

minerals

fibre



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# Carbohydrate

There are two different types of carbohydrates. Simple carbohydrates are sugars. These can be the sugars found in sweets and in your sugar bowl but also the sugars in fruit and other foods. The other type of carbohydrates are starches. Starches are foods such as breads, rice, pasta, potatoes and cereals. It is important to eat a lot of carbohydrates as they provide your body with the energy it needs. However, it is not good to eat too much refined sugar as it can cause problems for your body. It is better to eat lots of starches which will give you energy over a longer period of time.



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# Protein

Protein is found in foods such as meat, fish, eggs, seeds, nuts, dairy products (such as milk, cheese and yoghurt) and lentils. Protein is very important for your body as it is protein that enables you to grow and to repair and maintain your body. Your muscles, organs (such as the heart, lungs, liver and kidneys) and immune system are mostly made up of protein. Your body naturally produces some kinds of proteins but not all the varieties that your body needs. By eating foods that are rich in proteins your body will be able to grow properly, protect itself from disease and repair damage to body tissue. When you cut yourself, it is because of protein that your body can heal the cut.



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## Fibre

The main function of fibre is to keep the digestive system working properly. It helps to make the waste that your body doesn't need pass through the body easily without sitting in the intestines and bowel for too long. If the waste and toxins in the body stay in the bowels and intestines for too long they can cause discomfort and disease. Fibre is found in lots of different foods, such as bran, wholewheat flour, fruits (including dried fruit), vegetables, oats, cereals, potatoes and beans.



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## Fat

Fats have a lot of functions in our bodies. They are a source of energy which is used when blood sugar levels are low. They help to absorb certain vitamins your body needs. They provide insulation under the skin from the cold or the heat. Fats also help to prevent damage to organs and bones as well as insulating nerve fibres. However, some fats are good for us and some aren't so good. Some foods, such as nuts, fish, seeds and olives, contain fats that are essential for your bodies. Other foods that are high in fat, such as butter, cheese, fried food, ice-cream, fatty cuts of meat, cakes, pizza and chocolate, are less beneficial and should only be eaten in small amounts.



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# Minerals

Minerals are substances that are found in soil or water and are absorbed by plants or animals. When we eat the plants or animals we ingest the minerals. Have a look at this chart to see why some different minerals are important:

Iron	Iron is important as it helps the blood to carry oxygen to the different parts of the body. Without enough iron you will feel very tired. Iron is found in foods such as red meat, fish, lentils, beans, spinach and raisins.
Calcium	You need calcium to grow strong, healthy bones and teeth. It is important to have lots of calcium particularly when you are young and your bones and teeth are still growing. Calcium is found in dairy products such as milk, cheese and butter.
Magnesium	Magnesium has lots of functions in the body. It helps the muscles and nervous system to function properly as well as keeping your heart beating steadily. Magnesium is mainly found in wholegrain foods, nuts, seeds, bananas and avocados.
Zinc	Zinc helps your body and its organs to grow and repair themselves properly. Without zinc your body would have difficulty in healing cuts and scrapes. Zinc is found in meat, fish, nuts and dairy products.
Potassium	Potassium helps your body to regulate the level of blood and water in body tissue. Potassium is found in citrus fruits (such as oranges and lemons), broccoli, bananas, potatoes, peas and leafy vegetables.

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Let's recap...



- Sugars, starches and fats all provide us with ENERGY and are all important. However, you should mostly eat starches to give you energy and eat small amounts of fats and sugars.
- Proteins are important for GROWTH. They help your organs and body to maintain and repair themselves.



Can you think of any foods that would go in each of these food groups?

Carbohydrates

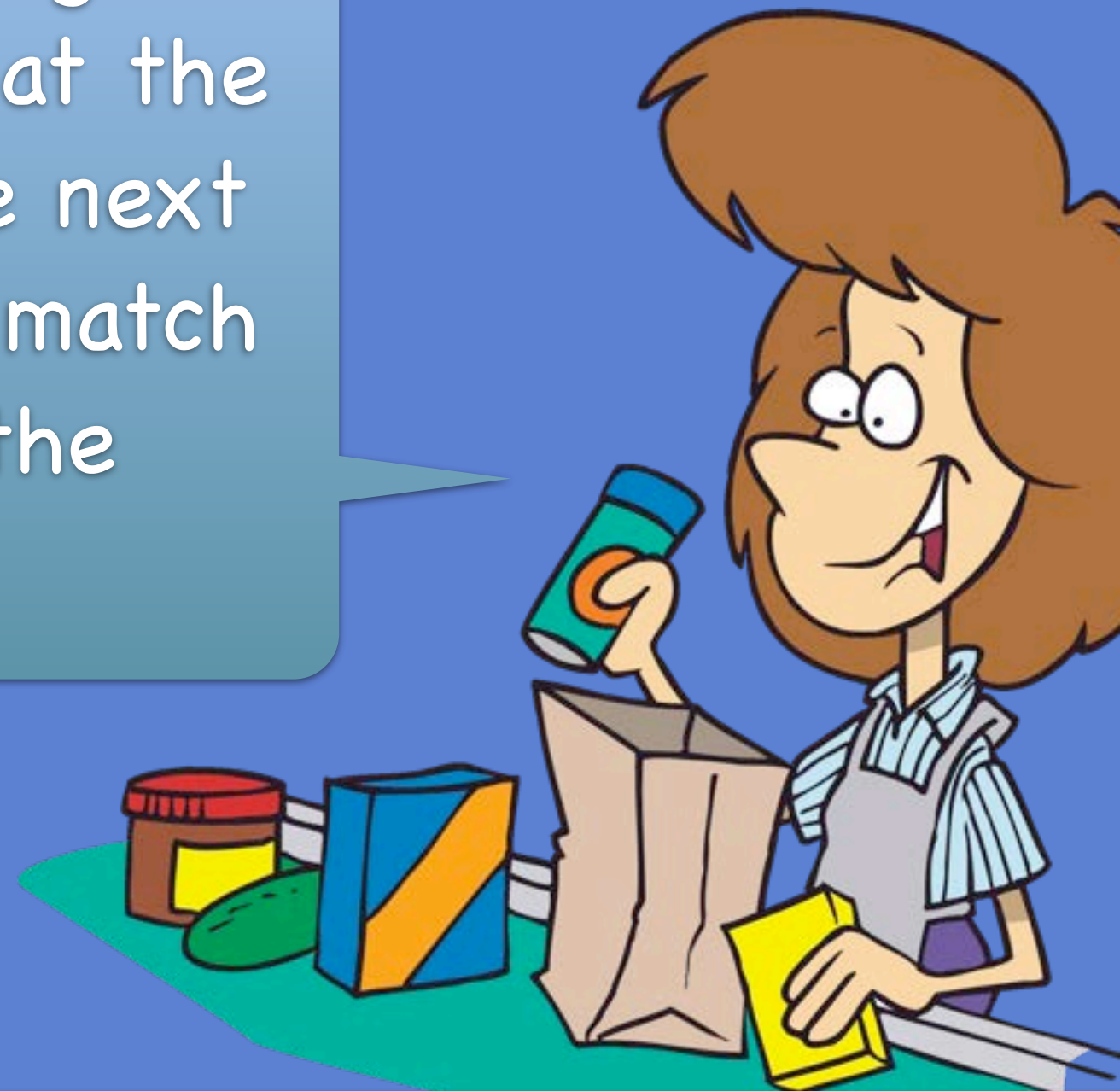
Fats

Proteins

Fibre

Minerals

You can find out how much of the different nutrients are in different foods by looking at food labels. Have a look at the three food labels on the next slide and see if you can match the correct food to the correct label...



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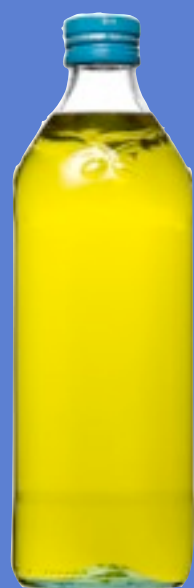
per 100g	
Energy	47kcal
Protein	2.8g
Carbohydrate of which sugars	8.0g 8.0g
Fat of which saturates	0.4g trace
Fibre	1.8g
Sodium	trace



crackers

per 100g	
Energy	356kcal
Protein	9.0g
Carbohydrate of which sugars	70.6g 5.1g
Fat of which saturates	1.4g 0.2g
Fibre	12.6g
Sodium	0.27g

per 100g	
Energy	823kcal
Protein	trace
Carbohydrate of which sugars	0g 0g
Fat of which saturates	91.4g 13.1g
Fibre	0g
Sodium	trace



olive  
oil

tinned  
tomatoes



# Did you get each of those right?

## TINNED TOMATOES

per 100g

Energy	47kcal
Protein	2.8g
Carbohydrate of which sugars	8.0g 8.0g
Fat of which saturates	0.4g trace
Fibre	1.8g
Sodium	trace



## CRACKERS

per 100g

Energy	356kcal
Protein	9.0g
Carbohydrate of which sugars	70.6g 5.1g
Fat of which saturates	1.4g 0.2g
Fibre	12.6g
Sodium	0.27g



## OLIVE OIL

per 100g

Energy	823kcal
Protein	trace
Carbohydrate of which sugars	0g 0g
Fat of which saturates	91.4g 13.1g
Fibre	0g
Sodium	trace



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PLENARY



# Plenary:

White rice	
per 100g	
Energy	115kcal
Protein	2.6g
Carbohydrate of which sugars	24.8g nil
Fat of which saturates	0.3g 0.1g
Fibre	1.2g
Sodium	nil

Brown rice	
per 100g	
Energy	110kcal
Protein	3g
Carbohydrate of which sugars	19.3g 0.2g
Fat of which saturates	1.3g 0.3g
Fibre	4.7g
Sodium	nil



Which of these foods do you think is healthiest and why?

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Pork chops	
per 100g	
Energy	199kcal
Protein	15.6g
Carbohydrate of which sugars	nil nil
Fat of which saturates	15.2g 5.6g
Fibre	nil
Sodium	trace

Prawns	
per 100g	
Energy	59kcal
Protein	14.2g
Carbohydrate of which sugars	0.3g <0.1g
Fat of which saturates	0.1g <0.1g
Fibre	nil
Sodium	0.75g



Which of these foods do you think is healthiest and why?

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Digestive biscuits	
per 100g	
Energy	496kcal
Protein	7g
Carbohydrate of which sugars	63.4g 18.4g
Fat of which saturates	23.3g 9.4g
Fibre	2.3g
Sodium	0.5g

Ready salted crisps	
per 100g	
Energy	437kcal
Protein	6.8g
Carbohydrate of which sugars	59.8g 0.5g
Fat of which saturates	21.8g 1.8g
Fibre	5g
Sodium	0.61g



Which of these foods do you think is healthiest and why?

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