

Alavi

Primary



Learner's Book

5

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Introduction

The Primary Science book has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy to use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to actively engage with the content, and develop enquiry skills as well as subject knowledge.

The content pages contain many images and questions that you can use as a basis for class discussions. The emphasis in this stage is on linking what learners know about everyday life to scientific ideas.

Throughout the book, you will find ideas for practical activities which will help learners to develop their Scientific Enquiry skills as well as introduce them to the thrill of scientific discovery.





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CHAPTER

1

Food and nutrition



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
1.1. Different nutrients	identify different types of nutrients.
1.2. Sources of minerals and vitamins	identify different sources of minerals and vitamins.

Word bank

1	nutrients	2	carbohydrate	3	protein	4	fat	5	mineral
6	vitamin	7	fibre	8	bulk up	9	waste	10	provide
11	make repair	12	calcium	13	iron	14	salt	15	substance
16	egg yolk	17	liver	18	green vegetables	19	nuts	20	carrot
21	milk	22	rice	23	bean	24	pineapple	25	apricot
26	nerve	27	gum	28	blood vessel	29	properly	30	blood clotting

1.1. Different nutrients

All living things need nutrients. **Nutrients** are the substances a body uses to build, repair and maintain itself. The process of feeding the body with nutrients is called **nutrition**.

There are five main types of nutrient we need from our food. These are carbohydrates, proteins, fats, minerals and vitamins. A sixth important part of our diet is roughage or fibre.



Fibre

Fibre does not provide nutrition, but it helps bulk up waste so that it passes easily through the body. People who do not consume enough roughage are more likely to suffer from constipation, which can sometimes lead to more serious diseases of the intestines.



Carbohydrates

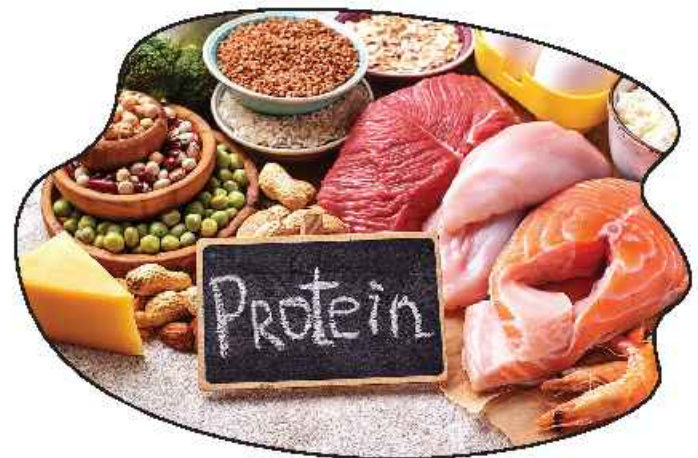
Carbohydrates are mainly used by body as fuel. Digestion breaks them into a simple sugar called glucose. This is carried in the blood to provide energy for all our body parts.

An athlete must eat plenty of carbohydrate before a race to provide the energy needed.



Proteins

Proteins perform many important jobs in the body. Your body needs them to grow, and to make repairs when it is damaged.



Fats

The body needs some fat to build its parts and keep them working properly. Fat can also be used as fuel, for energy. Surplus fat is stored under our skin as a reserve fuel supply.

Take care! Eating too much fat can make you gain weight or become obese. As you get older too much fat can damage your heart.



Minerals

Minerals are simple substances such as calcium, iron and salt that the body needs for building bones, carrying oxygen in the blood, and controlling blood pressure. You need to eat a lot of mineral-rich foods when your body is growing.



If you lose blood, then the iron it contained must be replaced or you will become weak. Dark green vegetables and liver are good sources of iron.

Young children need calcium from milk to build strong bones.

We need some salt in our diet to replace the sodium we lose by sweating, but too much salt can raise our blood pressure.

Vitamins

Vitamins are special substances that your body needs in tiny amounts but cannot make itself.



Primary Science

Copy and complete this table with a description of the importance of each food group.

	Nutrient	Importance in the diet
1.	carbohydrates	provide energy
2.	proteins	
3.	fats	
4.	vitamins	
5.	minerals	
6.	fibre	



* 1.2. Sources of minerals and vitamins

Different foods contain different amounts of the important nutrients we need. This is why we must eat a mixture of different foods – not just one type of food all the time. Foods may be grouped as sources of carbohydrate, protein or fat.

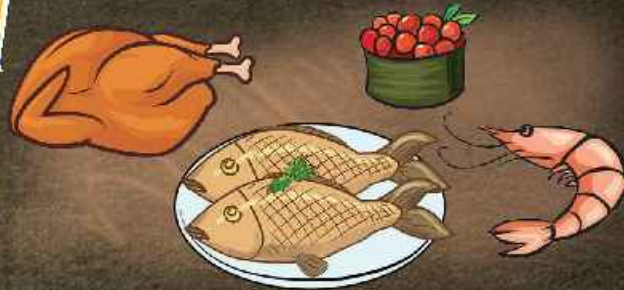


Carbohydrates

are contained in starchy foods such as roots, cereals, bread and rice, and in sweet foods in the form of sugars.

Proteins

are contained in meat, dairy products, fish, beans, seeds and nuts.



Fat-rich foods

are butter, margarine, groundnuts, animal and plant oils and fatty meat.

