

# Food and health

Answer the questionnaire about your eating habits then compare and discuss them in groups.

- a. How are your daily meals arranged?
- ☐ Breakfast time .....
  - ☐ Lunch time .....
  - ☐ Dinner time .....
- b. Do you have breakfast?
- ☐ Yes, I have a full breakfast. I have .....
  - ☐ Yes, I have a light breakfast. I just have .....
  - ☐ I don't usually have breakfast because I'm not hungry in the morning
  - ☐ I usually have no time for breakfast
  - ☐ Other .....
- c. Where do you have lunch on school days?
- ☐ At home
  - ☐ In the school canteen / cafeteria
  - ☐ In a snack-bar
  - ☐ In a fast food restaurant
  - ☐ I buy food from a shop and eat it somewhere near the school
  - ☐ I bring food from home and eat it somewhere near the school
  - ☐ Other .....
- d. Do you eat sweets / snacks during the day? If so, how many?
- |                               |                                |
|-------------------------------|--------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> One   |
| <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
- e. Who chooses and prepares your food?
- ☐ Your parents
  - ☐ The school caterers
  - ☐ Yourself
  - ☐ Other .....
- f. Do you think you eat:
- ☐ a balanced diet
  - ☐ enough fresh fruit and vegetables
  - ☐ enough protein
  - ☐ enough fibre
  - ☐ too much sugar
  - ☐ too much fat
  - ☐ too much salt
  - ☐ too much junk food
  - ☐ Other .....
- g. How could you improve your diet?
- ☐ I wouldn't change a thing!
  - ☐ By eating less ..... (sweets/fatty foods/fried foods/processed foods/red meat/etc.)
  - ☐ By eating more ..... (fruits/veggies/etc.)
  - ☐ Other .....



h. Are you a vegetarian? If so, why?

- ☐ Because I'm concerned about animal welfare.
- ☐ Because I don't want to eat meat or animal products.
- ☐ Because I believe there are health benefits in following a vegetarian diet.
- ☐ Other .....

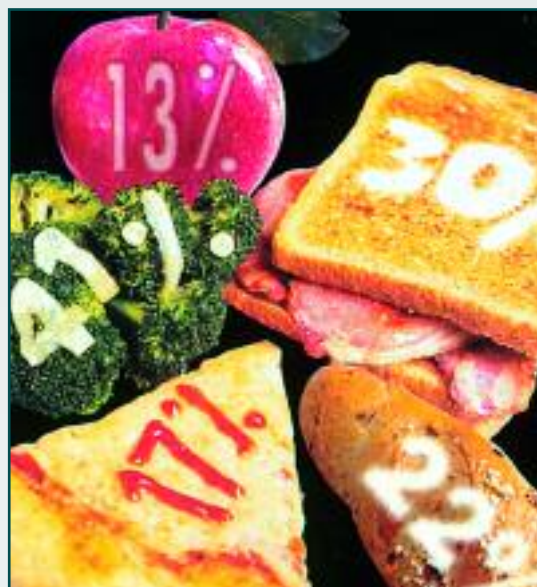
A healthy balanced diet can be achieved by eating sufficient amounts of each of the following types of food: protein, fat, carbohydrate, fibre, vitamins, minerals and water. These food types are described as nutrients.

Protein is needed to build new body cells. Our bodies are constructed from thousands of different proteins, each with a different job to do. Some proteins form an important part of the body's structure. Other proteins called enzymes control the chemical reactions in our cells.

Fats provide a concentrated source of energy which can be stored easily in the body. We have special fat storage cells that form a layer beneath the skin surface. The subcutaneous fat is particularly useful in cold climates. A fat layer also surrounds certain organs such as kidneys and eyeballs. It cushions them against severe knocks and reduces the chance of damage. Fat is needed to build new cell membranes. Finally we need a certain amount of fat to provide us with the fat soluble vitamins A and D.

Carbohydrates include two different food types: sugar and starch. Starchy foods, sometimes called complex carbohydrates, such as rice, bread, pasta and potatoes, are important in the diet because they can provide a good source of fibre. Carbohydrates give us energy. Starchy foods are preferable to sugars as an energy source.

Fibre is only found in plant foods. The highest quantities of fibre are found in the husks (the outside coverings of grains and seeds) of



cereal grains and the skin of fruits and vegetables. Fibre speeds up the passage of food through the body.

Vitamins are complex chemical substances that our cells cannot make themselves. We have to include them in our diet. They are only needed in tiny quantities but without them, many chemical reactions in our cells could not take place. We can make sure that we have enough vitamins by eating a variety of different foods including fresh fruit and vegetables.

Minerals are simple chemicals needed for many of the





body's activities. We only need small amounts of them to function properly, as with vitamins. Water is essential for our survival. We would die within a few days if we did not have water, yet we can survive for several weeks without food. It forms about 65% of our total mass. Our blood is about 90% water. Water in cells is the solvent that allows vital chemical reactions to take place.

Stone-Andrews-Williams, *Examining GCSE – Science*, Stanley Thornes Ltd



### What on earth is *keratin*?

*Keratin* is a tough hardwearing protein that makes up our skin, hair and nails.

- 1 Student A asks questions about why the nutrients listed below are needed and where they are found. Student B answers the questions using the hints given.

WHAT?	WHY?	WHERE?
Carbohydrates	To provide energy and heat	Bread, pasta, rice, potatoes, sweets, cakes, jam etc.
Vitamins	To act as antioxidants and to carry out metabolic reactions in the body	Mainly fresh fruit and vegetables
Proteins	For growth and repair of body tissue being essential components of all living cells	Plants and animal foods (meat, fish, eggs, milk products)
Fats	Concentrated source of heat and energy	Oil, butter, margarine, milk, cheese, meat, fatty fish, eggs
Minerals	For the regulation of the conditions and processes of the body	Different foods
Water	Constituent of body mass. Needed to carry out life processes and to carry away waste products	Almost all foods, particularly fruit and vegetables
Fibre	To speed up the passage of food through the body	In plant food only

**2** Now join the answers you have given into a passage entitled "Eat healthy stay healthy".

**3** Match these words into meaningful compounds/pairs to suit the descriptions.

balanced • ball • diet (2) • eye • fat • hard • products • slimming  
• subcutaneous • waste • wearing

- a. Food regime followed by people who want to lose weight. ....
- b. Food regime which includes all the required nutrients in the right proportion. ....
- c. Greasy substance found under the skin in animal bodies. ....
- d. Round part of the eye within eyelids and socket. ....
- e. Able to stand much use. ....
- f. Refuse. ....



**4** Read the list of "food facts" and say whether you think they make scientific sense. Complete the questionnaire and then check your answers with your teacher.

## A DISH OF OLD WIVES' TALES

Science has knocked Granny's advice about food off the table! So eat your fill – pasta is not fattening, eggs don't increase the production of cholesterol in the organisms, and there's more to come!

	T	F	Don't know
a. "Fish is good for the brain", because it contains phosphorous fish is supposed to improve memory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. "Take vitamin C and it will prevent you from catching a cold".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. "Eat fruit between meals and not at meals".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. "Eat fruit with the peel on", because the peel is supposed to contain the greatest amounts of vitamins.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. "Cane sugar and honey are better for you than 'white poison' or refined sugar".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. "Eating red meat preferably only lightly cooked 'makes' red blood".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. "Lemon juice will disinfect raw shellfish".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. "Yoghurt is a panacea".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. "Chickens are fed on chemically produced feedstuffs and therefore the meat is not nutritious".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. "Chickens are reared in battery cages".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>