SCIENCE

Food and Digestion

It is not necessary to carry out all the activities contained in this unit.
Please see *Teachers' Notes* for explanations, additional activities, and tips and suggestions.

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***Note:** The categorisation of activities is indicative only and should not prevent teachers from using any activities that are considered suitable for a particular group of students.*

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Making the best use of these units

Learning Record

A copy of the Learning Record should be distributed to each learning support and language support student.

Students should:

1. Write the subject and topic on the record.
2. Tick off/date the different statements as they complete activities.
3. Keep the record in their files along with the work produced for this unit.
4. Use this material to support mainstream subject learning.

Introduction of a topic or activity should ensure that students understand **what** they are doing and **why**. Many students will have some difficulty in understanding both the language in the activity and the instructions/purpose for carrying out the activity.

You can create your **personal teaching resource** by printing these units in full and filing them by subject in a large ring binder.

Encourage students to:

- Bring the relevant **subject textbooks** to learning/language support class. It does not matter if they have different textbooks as the activities in these units refer to vocabulary and other items that will be found in all subject textbooks. These units are based on curriculum materials.
- Take some **responsibility for their own learning** programmes by:

Developing a **personal dictionary** for different subjects, topics, and other categories of language, on an on-going basis. This prompt is a reminder.

Recording what they have learnt on the ***Learning Record,*** which should be distributed at the start of each unit.

Keeping their own **files** with good examples of the work produced for different subjects and topics. This file will be an invaluable **learning resource** in supporting mainstream learning.

Indicates that answers may be found at the end of the unit.

Don't forget that many of the activities in these units are also suitable as **homework** tasks or for **self-study.**

Keywords

The list of keywords for this unit is as follows:

Nouns

absorption
amino acids
amount
anus
apparatus
assimilation
balance
bloodstream
body
calories
carbohydrates
cells
colour
constituents
content
diet
digestion
egestion
energy
enzymes
fats
fatty acids
food
gas
glucose
glycerol
growth
kilocalorie (kcal)
kilojoules (kj)
ingestion
liquids
material
method
milk
minerals
nutrient
nutrition
organs
paper
pieces
presence
process/processes
protein
record
sample
solution
spoon
starch
substance
sulfate
tissue
tube
types
vitamin
water
worker

Verbs

to break down
to eat
to feed
to involve
to need
to provide
to repair
to test
to use

Adjectives

designated
digested
digestive
excreted
following
healthy
soluble
undigested
various

Adverbs

chemically
physically

NAME: _____ DATE:_____
SCIENCE: Food and Digestion

Vocabulary file 1

Word	Meaning	Note or example*
absorption		
amino acids		
assimilation		
calories		
carbohydrates		
constituents		
diet		

*You may wish to write a sentence or phrase, make a note of the page in your textbook where this word appears or, if English is not your first language, provide a translation into your language.

 Get your teacher to check this, then file it in your folder so you can use it in the future.

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NAME: _____ DATE:_____
SCIENCE: Food and Digestion

Vocabulary file 2

Word	Meaning	Note or example
digestion		
egestion		
fatty acids		
ingestion		
nutrition		
process		
protein		

Get your teacher to check this, then file it in your folder so you can use it in the future.

NAME: _____ DATE:_____
SCIENCE: Food and Digestion

Vocabulary file 3

Word	Meaning	Note or example
to break down		
to repair		
starch		
substance		
designated		
digestive		
soluble		

Get your teacher to check this, then file it in your folder so you can use it in the future.

Language Level: all
Type of activity: whole class
Suggested time: 10 minutes

Activating students' existing knowledge

Use a spidergram to activate students' ideas and knowledge on the key points in this chapter. See **Teachers' Notes** for suggestions.

Possible key term for the spidergram:

Food

Energy

- Invite newcomer students to provide key words in their own languages.
- Encourage dictionary use.
- Encourage all students to organise their vocabulary into relevant categories (e.g. meaning, nouns, keywords, verbs etc.).

All students should record vocabulary and terms from the spidergram in their personal dictionaries.

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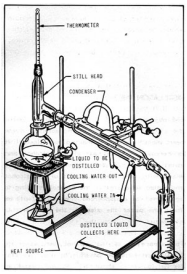
NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A1
Type of activity: pairs or individual
Suggested time: 30 minutes

Working with words

1. Tick the correct answer



a) flower

b) fruit

c) car

d) apparatus

a) lesson

b) piano

c) food

d) bones

2. Find these words in your textbook.

Write your own explanation for these words. Then write a note or example to help you remember the word. Use your dictionary if necessary.

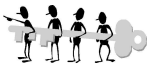
Word	Page in textbook	Explanation	Note or example
balance			
bloodstream			
glucose			
ingestion			

Check that these key words are in your personal dictionary.

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A1
Type of activity: pairs or individual
Suggested time: 30 minutes

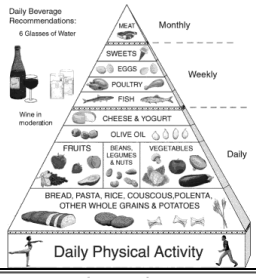


Picture Sentences

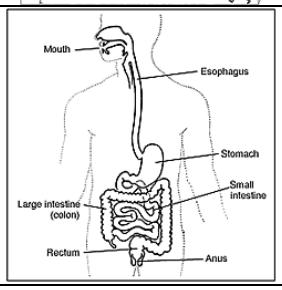
1. Tick the correct answer

a) This is a tree.
b) These are cells.
c) This is a copy book.

a) This is a camera.
b) This is a desk.
c) This is a diet.



a) This is the digestive system.
b) These are clouds.
c) This is photosynthesis.



2. Put these words in the correct order to form sentences.

need all living things food

_____

balanced should we diet a eat

_____

provide foods fatty energy a of lot

_____

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A1 / A2
Type of activity: pairs or individual
Suggested time: 20 minutes

Odd One Out

1. Circle the word which does not fit with the other words in each line.

Example: ***chair*** ***desk*** ***book*** ***train***

telephone	call	ring	vitamin
window	door	energy	room
protein	garden	grass	tree
green	red	blue	water

2. Find these words in your textbook. Then put them in short sentences in your own words. Use a dictionary if necessary.

to break down _____

to provide _____

to repair _____

to test _____

to need _____

Check that these key words are in your personal dictionary.

NAME: _____ DATE:_____
SCIENCE: Food and Digestion

Language Level: A2 / B1
Type of activity: individual
Suggested time: 20 minutes

Science Keywords

1. Fill in the missing letters of the keywords listed below.
On the line beside each word, write whether the word is a noun, an adjective or a verb.

en_rg_ _____

he_lth_ _____

pr_te_n _____

nu_rie_ts _____

2. Write as many words as possible related to **food and digestion**. You have 3 minutes!

_____

_____

_____

_____

_____

_____

Check that these keywords are in your personal dictionary.

Have you ticked this activity on your Learning Record?

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A1 / A2
Type of activity: pairs or individual
Suggested time: 20 minutes

Unscramble the letters

1. All living things need FODO

Answer _____

2. Food gives us this EREYGN

Answer _____

3. Five of these can be found in food NUTIRTENS

Answer _____

4. 70% of the human body consists of WTAER

Answer _____

Look at each word as you write the answer.

Is your spelling correct?

Can you pronounce the word?

Do you know what the word means?

Have you got this word in your personal dictionary?

Solve the secret code

English=	G	C	D	E	L	I	N	M	O	S	T	U
Code=	B	X	Y	F	G	Q	R	O	L	E	A	W

example: (code) EAWYFRA = STUDENT (English)

BGWXLEF =

_____

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A2 / B1
Type of activity: pairs or individual
Suggested time: 30 minutes

Completing text

1. Fill in the blanks in these sentences. Use words from the Word Box below.

Nutrition: feeding in humans and most other animals involves the following processes.

Ingestion: food is taken into the mouth.

Digestion: _____ is broken up into soluble substances by the _____ and by digestive organs.

Absorption: soluble substances are absorbed into the _____.

Assimilation: the soluble products of _____ are reorganised and used for growth of new cells, for _____ and for the repair of organs and tissue.

Egestion: undigested material is got rid of (excreted) through the anus.

Word Box

energy	food	bloodstream	digestion	teeth

2. Teeth play an important role in digestion. You will be learning about different types of teeth in your science textbook. But perhaps you know something already! With a partner, try to match the types of teeth, to the descriptions.

incisors	canines	premolars	molars

- Pointed teeth which tear the food.
- Large flat teeth at the back.
- Sharp teeth at the front of the mouth.
- Flat teeth used to grind the food.

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Language Level: A2 / B1
Type of activity: individual
Suggested time: 30 minutes

Multiple choice

Read the text below and choose the best answers.

Food has to be broken up into smaller pieces before the body can use it.

Food is broken up physically by the teeth. An adult has 32 teeth to do this. – 16 in the upper jaw and 16 in the lower jaw. The second stage of digestion involves the use of chemicals called enzymes The digestive enzymes are made in the mouth, stomach, pancreas and small intestine Each enzyme is different and each will break down only one of the food types. Proteins, carbohydrates and fats are all worked on by digestive systems. They are broken down into their simplest, soluble parts, which can then enter the blood. Carbohydrates are broken up into glucose, proteins are broken up into amino acids and fats are broken up into fatty acids and glycerol

1). What does food have to be broken up into?

a) nothing b) smaller pieces
c) the body d) teeth

2). What breaks the food physically?

a) teeth b) jaws
c) the body d) machines

3). What breaks up the food chemically?

a) high energy foods b) walking
c) talking d) enzymes

4). Are carbohydrates broken up into glucose?

a) Yes b) No

5). Are proteins broken up into glycerol?

a) Yes b) No

NAME: _____ **DATE:**_____

SCIENCE: Food and Digestion

Language Level: B1
Type of activity: individual
Suggested time: 40 minutes

Planning and writing text

Use this chart to plan a short text on the topic 'We are what we eat'.

Introduction
The importance of food in our lives, food and family, food and culture.

First paragraph
The scientific process – how we digest food, the importance of food to our health.

Second paragraph
Food fashions, food and the modern world versus food in the past.

Concluding points
How to improve our health, and the health of the world by changing our food habits, because we are what we eat.

Important words for this topic.

Have you ticked this activity on your Learning Record?

NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Use your plan and your textbook to write about: '**We are what we eat**'

'.

When your teacher has checked this, file it in your folder so you can use it in the future.

NAME: _____ DATE:_____
SCIENCE: Food and Digestion

Language Level: A2/B1
Type of activity: individual and pairs
Suggested time: 30 minutes

Grammar Points

1. The passive form of the verb is used a lot in science. This is because the **process** is important, not the person/thing who carries out the process.

Examples:

Water **is used** to dissolve substances.

Energy content **is measured** in KJ (kilojoules).

Starch **is tested** for by adding iodine solution.

We form the passive with **be + –ed form (past participle)**

2. Underline the passive forms of the verbs in the following sentences:

Starch is broken down in the mouth.
Maltose is made of two glucose modules linking together.
Food is chewed in the mouth.
Food is carried from the mouth to the stomach in a tube.

3. Rewrite and improve the following sentences by taking out **they** or **somebody** and using the passive form. The first one is done for you.

Somebody wants you in the office.
You **are wanted** in the office.

- They announced a delay.
- They make these cars in Germany.
- They empty the bins.
- Someone stole my mobile phone.

4. Open your science textbook on any page. Look for examples of verbs in the passive form. Write out five sentences, leaving blanks. Give them to another student to fill in.
Example: Oxygen _____ by the red blood cells combined with haemoglobin. (to carry)

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SCIENCE: Food and Digestion

Alphaboxes

Using your textbook, find **one** word beginning with each of the letters of the alphabet. Write the word in the relevant box. You could also write the word in your own language.

a	b	c
d	e	f
g	h	i
j	k	l
m	n	o
p	q	r
s	t	u
v	w	xyz

Do you understand all these words?

Get your teacher to check this, then file it in your folder so you can use it in the future.

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NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Word search

Find the words in the box below.

```
          S F C R P
        B A T A S T E D
      Z M J N K   H Y X
    B I H I U E     S E L
  F O O D S Z X       A W W
  S W Z E A U W       V H T E S T A
T A P P A R A T U S P C X T L J F A T S
F O O D V K T L S T A R C H R A E E B Y C
C B C A M O U N T S U B S T A N C E S F Y A
V H G L U C O S E K X R C H E M I C A L S R
Z U X Z P R O T E I N L G Y P N J B O V O R
V V F M T D I E T S O L U T I O N V F V Z K
  J K B A L A N C E D K Q B E N E R G Y K
    Y V Y U           Q L Q Q
      X S               D M
```

AMOUNTS	FATS	STARCH
APPARATUS	FOOD	SUBSTANCES
BALANCED	FOODS	TEST
CHEMICALS	GLUCOSE	
DIET	PROTEIN	
ENERGY	SOLUTION	

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Play Snap

Make Snap cards with 2 sets of the same keywords. See *Notes for teachers* for ideas about how to use the cards.

energy	**energy**
glucose	**glucose**
starch	**starch**

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chemicals	chemicals
healthy	healthy
diet	diet

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NAME: _____ DATE:_____

SCIENCE: Food and Digestion

solution	solution
minerals	minerals
substance	substance

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Answer key

Working with words, page 8
d,c

Picture Sentences, page 9
b,c,a
All living things need food.
We should eat a balanced diet.
Fatty foods provide a lot of energy.

Odd one out, page 10
Vitamin, energy, protein, water

Key words, page 11
Energy (noun), healthy (adjective), protein (noun), nutrients (noun)

Unscramble the letters, page 12
Food, energy, nutrients, water
Secret code: glucose

Completing text Page 13

1. Nutrition: feeding in humans and most other animals involves the following processes.
Ingestion: food is taken into the mouth.
Digestion: **food** is broken up into soluble substances by the **teeth** and by digestive organs.
Absorption: soluble substances are absorbed into the **bloodstream**.
Assimilation: the soluble products of **digestion** are reorganised and used for growth of new cells, for **energy** and for the repair of organs and tissue.
Egestion: undigested material is got rid of (excreted) through the anus.

2. **Canines** - pointed teeth which tear the food. **Molars** - large flat teeth at the back. **Incisors** - sharp teeth at the front of the mouth. **Premolars** - flat teeth used to grind the food.

Multiple Choice, page 14
1b,2a,3d,4a,5b

Grammar points, page 17
2. Starch is broken down in the mouth.
Maltose is made of two glucose modules linking together.

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NAME: _____ DATE:_____

SCIENCE: Food and Digestion

Food <u>is</u> <u>chewed</u> in the mouth.
Food <u>is</u> <u>carried</u> from the mouth to the stomach in a tube.

3. A delay <u>was</u> <u>announced</u>.
These cars <u>are</u> <u>made</u> in Germany.
The bins <u>are</u> <u>emptied.</u>
My mobile phone <u>was</u> <u>stolen.</u>

4. <u>is</u> <u>carried</u>

Word Search, page 19.