

Vocabulary and Section Summary B

The Necessities of Life

VOCABULARY

After you finish reading the section, try this puzzle! Use the clues below to fill in the blanks with the term being described. Then, find the vocabulary terms in the word search puzzle. Terms can be hidden in the puzzle vertically, horizontally, diagonally, or backward.

- | | |
|---------------|---|
| carbohydrates | 1. class of molecules that includes sugars |
| nucleic acids | 2. molecule made up of subunits called nucleotides |
| consumer | 3. organism that eats other organisms for food |
| decomposer | 4. organism that breaks down the nutrients of dead organisms or wastes for food |
| phospholipids | 5. molecules that form much of the cell membrane |
| producer | 6. organism that can make its own food |
| lipids | 7. fat molecule that cannot mix with water and is used to store energy |
| protein | 8. large molecule made up of amino acids |
| ATP | 9. molecule that is the main energy source for cell processes |

Vocabulary and Section Summary B *continued*

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

SECTION SUMMARY

Read the following section summary.

- The cells of living things need water to function.
- The cells of some living things need gases, such as oxygen, to release the energy contained in food.
- Living things must have a place to live.
- Cells store energy in carbohydrates, which are made up of sugars.
- Proteins are made up of amino acids. Some proteins are enzymes.
- Lipids store energy and make up cell membranes.
- Cells use molecules of ATP to fuel their activities.
- Nucleic acids, such as DNA, are made up of nucleotides.

Skills Worksheet

Directed Reading B

Section: The Electromagnetic Spectrum (pp. 76–81)

1. What kind of light can a bee see that you cannot see?

ultraviolet light

2. In what way is visible light similar to ultraviolet light?

They are both forms of energy that travel as certain kind of waves

LIGHT: AN ELECTROMAGNETIC WAVE

A.

3. How is light different from other kinds of waves?

- a. Light does not need to travel through matter.
- b. Light does not differ in any way from other kinds of waves.
- c. Light must travel through matter.
- d. Light is not able to travel through matter.

4. What kind of wave is light?

an electromagnetic wave

5. A wave that consists of changing electric and magnetic fields is called

a(n) an electromagnetic wave

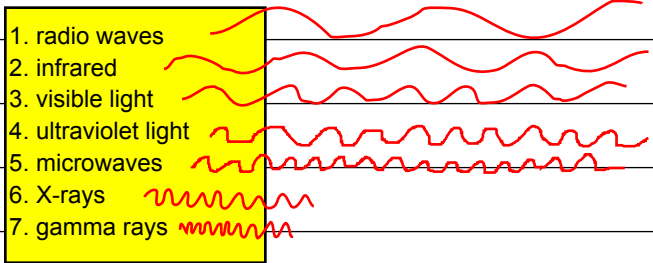
A SPECTRUM OF WAVES

6. The entire range of EM waves is called the Electromagnetic spectrum

7. Which EM wave is only a small band within the broad electromagnetic spectrum?

visible light

8. Name the seven kinds of EM waves.



Directed Reading B *continued*

9. List two examples of how EM waves are used in everyday life.

1. microwave
2. radio

10. The distance from any point on a wave to an identical point on the next wave is called a(n) wavelength.

INFRARED WAVES

- b. 11. Which of the following statements about infrared waves is NOT true?
- a. Infrared waves from the sun make temperatures on Earth suitable for life.
 - b. Infrared waves are only given off by the sun.
 - c. Warmer objects give off more infrared waves than cooler objects do.
 - d. All things give off infrared waves.

- c. 12. What does the amount of infrared waves given off by an object depend on?
- a. the wave's speed and weight
 - b. the wave's frequency and surface properties
 - c. the object's weight and temperature
 - d. the object's temperature and surface properties

VISIBLE LIGHT

13. The very narrow range of wavelengths in the electromagnetic spectrum that humans can see is called visible light.

14. What range of wavelengths can humans see?

400nm - 700nm

15. What kind of energy is turned into chemical energy during photosynthesis?

blue light especially

16. The visible light of all wavelengths combined is called

white light

17. To the human eye, the longest wavelengths of visible light appear as the color

red