

Name and surname:

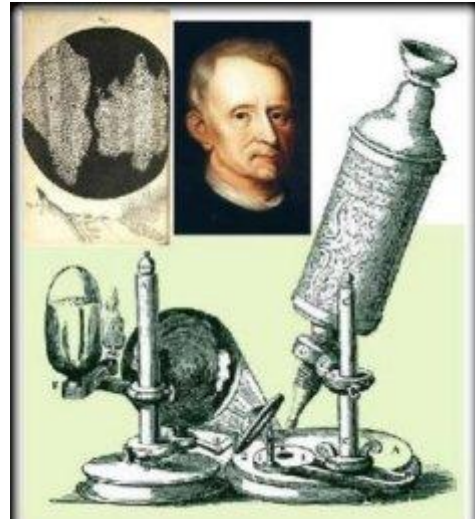
Worksheet - Cell

9 th grade

Robert Hooke

English physicist and biologist.

*In 1665 as the first one described
cell in cork.*



Exercise 1:

Read the text and answer the questions:

Cells are the structural and functional units of all living organisms. Some organisms, such as bacteria, are unicellular, consisting of a single cell. Other organisms, such as humans, are multicellular, or have many cells—an estimated 100,000,000,000,000 cells! Each cell is an amazing world unto itself: it can take in nutrients, convert these nutrients into energy, carry out specialized functions, and reproduce as necessary.

What are cells?

- a) the structural and functional units of non - living organisms.
- b) the structural and multifunctional units of all living organisms.
- c) the structural and functional units of all living organisms.

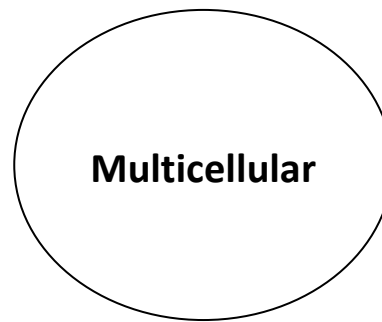
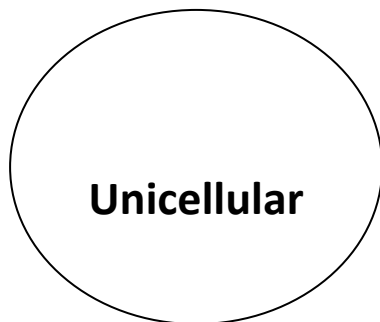
The three basic functions of a cell are:

- a) it converts nutrients into energy and reproduces as necessary.
- b) it only takes in nutrients and converts these nutrients into energy
- c) it reproduces, it takes in nutrients and converts these into energy

Exercise 2:

Read the text from exercise 1 and divide these organisms according to the number of cells.

tulip snail bacteria fly frog green hydra mushroom pine tree yeast



Exercise 3:

Find the following words:

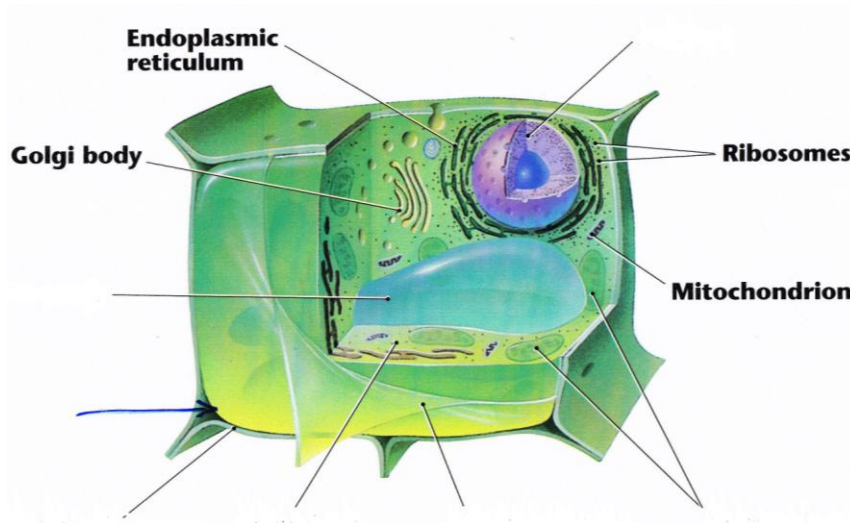
Q D B W F
R H G M N O G M
K E Q U T X T D
T M Y U R D V G L
N U C L E U S S T N
A D Q B Z W E L H E H A L I
I Q B D P R J C H L O R O P L A S T S D
K X O P J U B A W L T L V A C U O L E G N
W K F R M N O I R D N O H C O T I M V I N N
S E M O S O B I R O C E L L M E M B R A N E
Y C W F M T I G O L G I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

VACUOLE
CELLWALL
CELLMEMBRANE
NUCLEUS
CHLOROPLASTS
MITOCHONDRION
RIBOSOMES
CYTOPLASM
GOLGIAPPARATUS

Exercise 4:

Describe a plant cell:

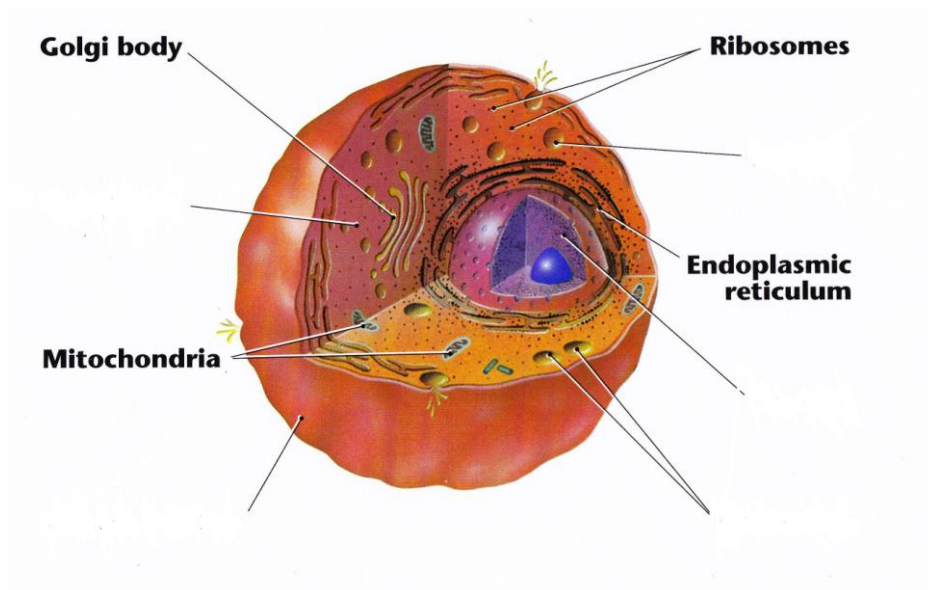
vacuole, cell wall, cell membrane, nucleus, chloroplasts, cytoplasm



Exercise 5:

Describe an animal cell:

cytoplasm, nucleus, cell membrane, vacuole, lysosomes



Exercise 6:

Match the terms with their definitions.

9 – it is responsible for processes and a transfer of genetic information

1 - Cell

D – Cell wall

K - the structural and functional unit

I - chlorofyl

10 – nucleus, cell membrane, cytoplasm, mitochondrion

6 – they are able to absorb and carry out solar energy

2 - Mitochondrion

12 – English physicist and biologist, in 1665 started using a word - cell

5 – it defines the cell's shape and stability

G - Vacuole

C – energetic centre of a cell

B – cell membrane

E – it happens in plant's cell

F - Nucleus

11 – nucleus, cell membrane, cell wall, cytoplasm, vacuole, chloroplasts, mitochondrion

J – the structure of a plant cell

4 - photosynthesis

A – Robert Hooke

L - chloroplasts

H – common organelles of a plant and animal cell

8 – it allows substances to go in and out of a cell

7 – it is filled with a cell liquid and storage substances are stored here

3 – green substance

CORRECT ANSWERS, e.g. 1C:

1 -

2 -

3 -

4 -

5 -

6 -

7 -

8 -

9 -

10 -

11 -

12 -

Exercise 7:

The basic difference between a plant and an animal cell is in:

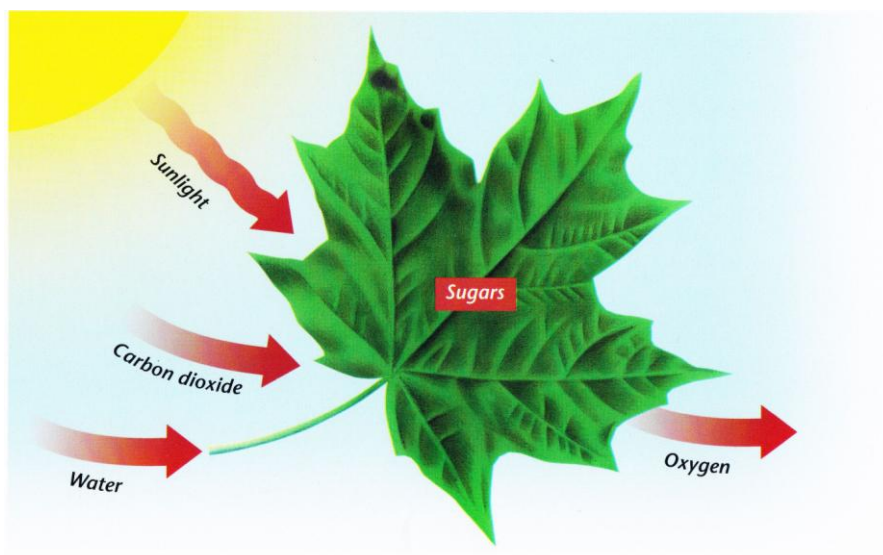
- a) shape b) size c) form of nutrition

Exercise 8:

Photosynthesis is the process that produces “food” in plants. Photosynthesis happens in the leaves of all green plants. Photosynthesis happens inside the chloroplasts.

Name four factors that are needed for photosynthesis:

- ❖ _____
- ❖ _____
- ❖ _____
- ❖ _____





Write the chemical equation of photosynthesis:

_____ + _____ → _____ + _____

Exercise 9:

Photosynthesis makes glucose. The glucose may then be converted to other substances. Some of these substance are listed below:

cellulose sucrose starch amino acid

Match each of these substances to its correct function from the list below.

- Making cell walls.
- Making enzymes.
- Making fruit sweet.
- Storing energy.

How did you feel about your work today:

Which exercise was interesting for you?

Which exercise was difficult for you?

Did you need any help of classmates/ teacher?

Your evaluation in %:



Zdroje:

http://1.bp.blogspot.com/-CAi1pIG4bvo/TaYNat7hVil/AAAAAAAAAJc/_VdEajvZUNE/s400/Robert+Hooke+2.jpg
http://www.ncbi.nlm.nih.gov/About/primer/genetics_cell.html
<http://tools.atozteacherstuff.com/word-search-maker/wordsearch.php>

