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Gr. / 7

Subject/ Science

Worksheet#6

Unit:2, Lesson:1**Archaea, Bacteria, and Viruses****Textbook Pgs. (78 - 91)*****Lesson Vocabulary***

Bacteria:	a domain made up of prokaryotes, single celled organisms that have a cell wall and reproduce by cell division
Archaea:	a domain made up of prokaryotes that differ from bacteria in their genetics, live in extreme environments (ex: hot springs)
virus:	a nonliving, infectious particles composed of nucleic acid and a protein coat; it can invade and destroy the cell.
binary fission:	a form of asexual reproduction in single celled organisms by which one cell divides into two cells of the same size.
host:	an organism from which a parasite takes food or shelter.

Q1. Choose the correct answer.

- 1- Archaea are organisms that belong to
a-prokaryotes b-eukaryote c-Plants

- 2- are microscopic particles that cannot replicate on their own.
a-Archaea b-Bacteria c-Viruses

- 3-lived in extreme environments.
a-Archaea b-Bacteria c-Viruses

- 4- All the following are true about the archaea **except**
a-They are closely related to eukaryotes than to bacteria
b-They can live in extreme environments
c-Each cell of archaea has a nucleus

- 5- All are **true** about the bacteria **except**
a- They are prokaryotes
b- They are round, spiral, and rod shapes
c- They live only in extreme environments

Q2. Mention three ways that bacteria can acquire new genetic information.

- 1-.....
- 2-.....
- 3-.....

Q3. Explain

1- Archaea are more closely related to eukaryotes.

.....
.....

2- Viruses are not considered live.

.....
.....

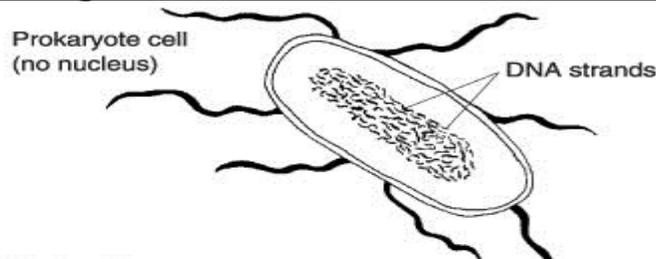
3- Viruses replicate instead of reproduce.

.....
.....

Q4. Compare between the prokaryotic and eukaryotic:

<u>Prokaryotic</u>	<u>Eukaryotic</u>

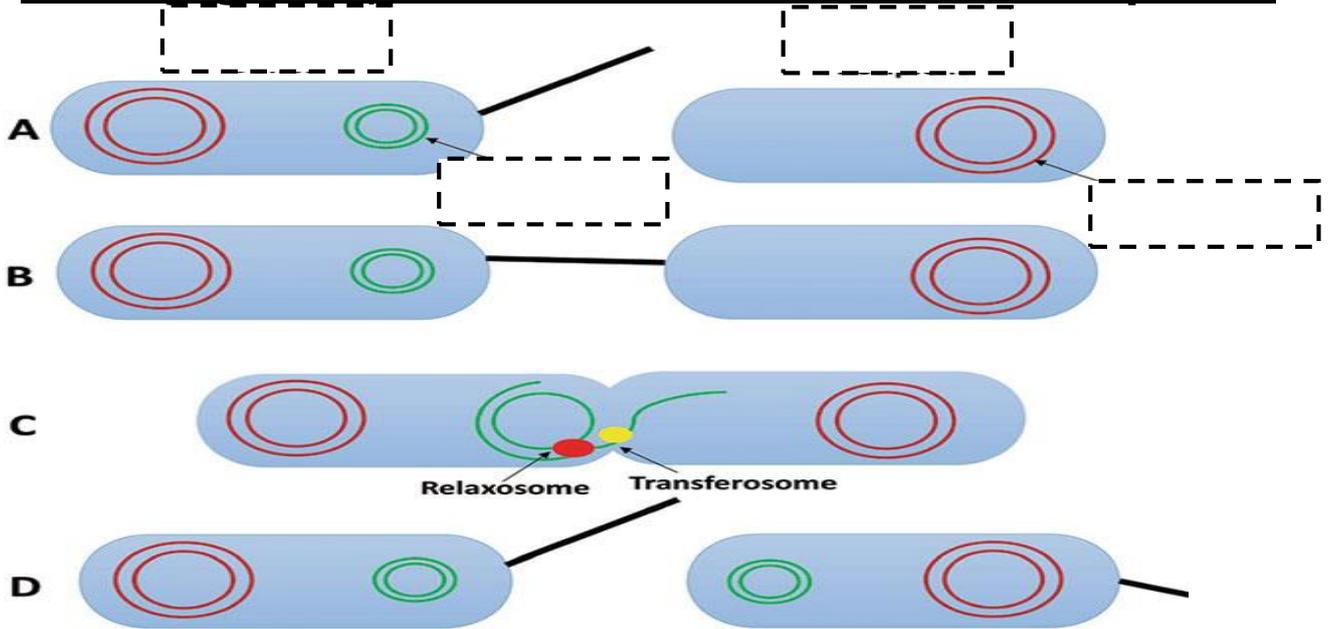
Q5. Look at the figure below, then answer.



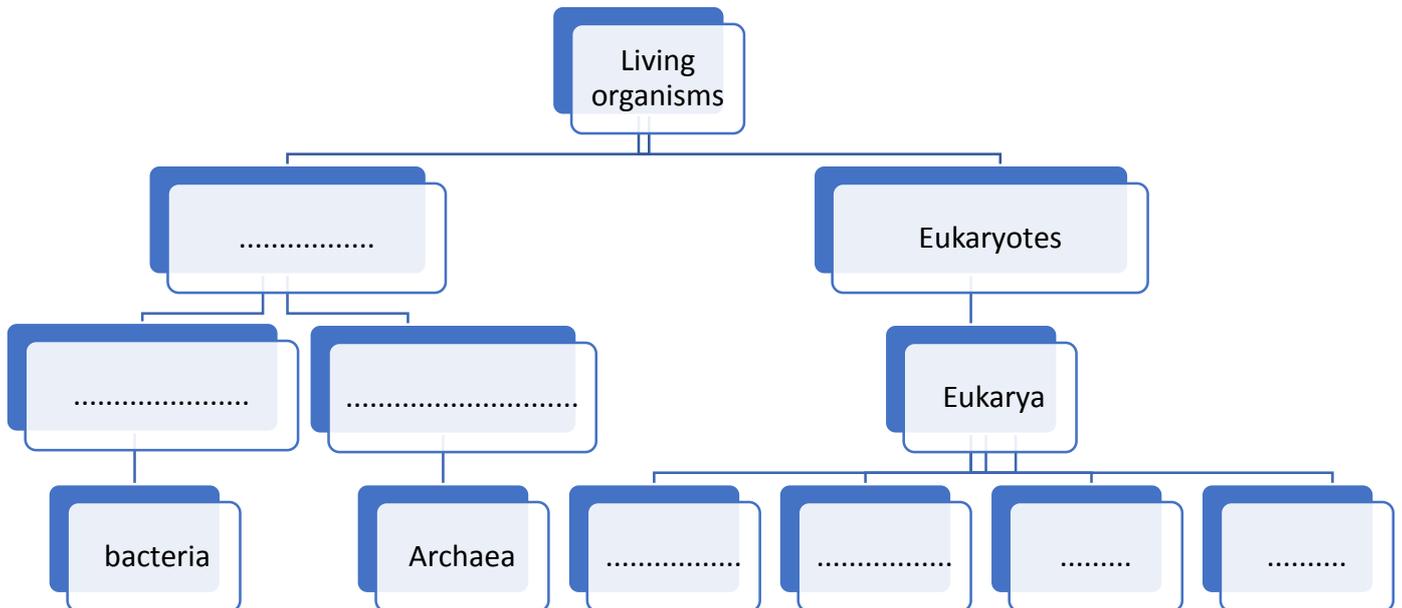
1- What is the kind of this cell? Explain your answer

.....
.....

Q6. Fill in the blank labels to complete the description of conjugation, label the cells as donor or recipient?



Q7. Complete the chart to classify the following organisms.



Q8. Complete the following sentences.

1. Many bacteria are that get nutrients by feeding on other organisms.
2. Some bacterial are, which feed on dead organisms.
3. Bacteria that make their own food are called
4. Bacteria that are shaped like can move like corkscrews.
5. Bacteria that are shaped like, they quickly absorb nutrients.
6. is the way of the bacteria to protect themselves and made up of a thick, protective coating, the bacteria's genetic material, and cytoplasm.
7. Both archaea and bacteria reproduce by

Q9. Put true (T) if the statement is correct and false (F) if it is wrong then correct the mistakes.

1. When the host cell is full of new viruses, they burst from the host cell. This step, called lysis, kills the host cell. ()
.....
2. Viruses can replicate without entrance into a living cell that serves as a host. ()
.....

3. Viruses contain only a genetic material and a protein coat. ()

.....

4. Transformation occurs when bacteria take up DNA from the environment. ()

.....

5. Transduction happens when a bacterium injects DNA into a bacterium. ()

.....

6. At the end of binary fission, there are three identical bacterial cells, each with identical DNA. ()

.....

7. Bacteria can be found almost everywhere on Earth ()

.....

8. Round bacteria are characterized by that they do not dry out quickly. ()

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