

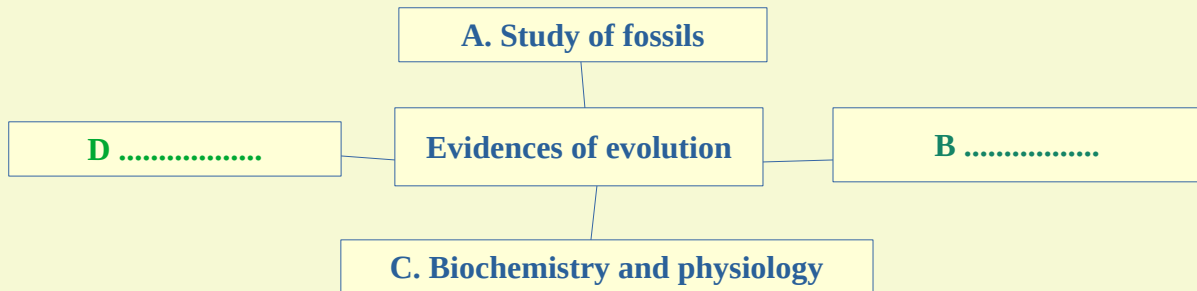
**A JOINT VENTURE OF DIET AND
SSK, PALAKKAD**



**STUDENT SUPPORT MATERIAL
FOR
STANDARD 10 BIOLOGY
THE PATHS TRAVERSED BY LIFE
WORK SHEET FOR CLASS 48
ON 17-01-2021**

1. Write the branch of science which deals with study of fossils ?

2. Complete the illustration given below, related to the evidences that support the evolution of new species.



3. Scientific study of the remnants, body parts, and imprints of primitive organisms are evidences of evolution

- (a) What inferences do we arrive at, through such scientific studies?
- (b) How will you explain these inferences as evidences on evolution?

4. The morphological and anatomical structure of forelimbs in lizard, bat, sea cow are shown here. Observe the illustration and answer the following questions



- (a) Are these forelimbs differ morphologically or anatomically or both ? What is the reason behind this difference?
- (b) what is the term used for such organs that are similar in structure but different in function

5. There is a common ancestor for all the different species that exist today. Explain how Biochemical and Physiological studies substantiate the above statement?

6. Fossils obtained from the different layers of rocks clearly indicate the evolution of eukaryotes from prokaryotes

(a) What are fossils?

7. The table given below shows the difference in aminoacids obtained from a comparative study of the β chain of haemoglobin of different organisms. Analyse the table and answer the questions:

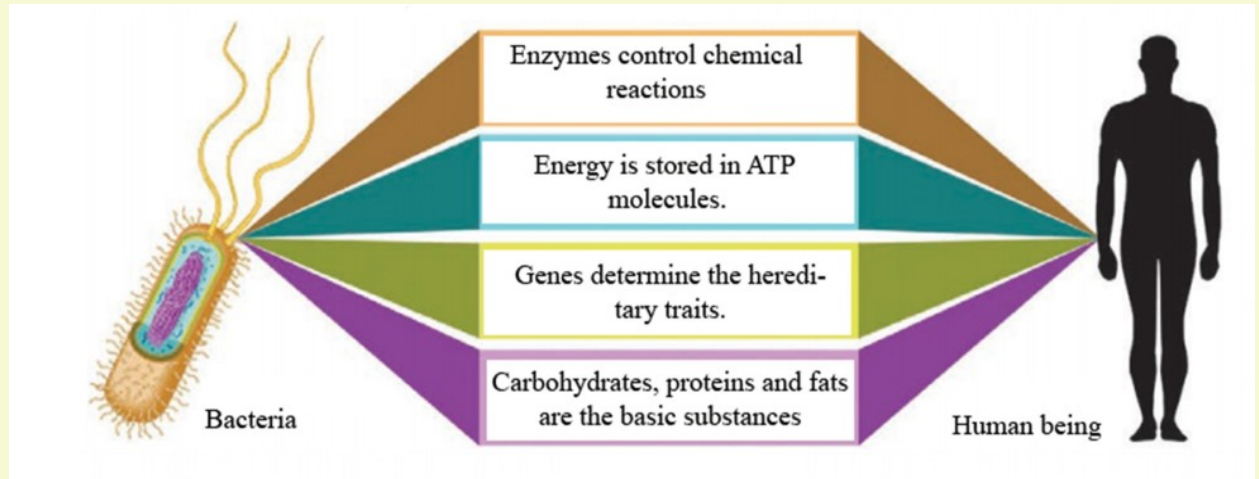
Organism	Difference from the aminoacids in the β chain of haemoglobin in man.
Chimpanzee	0
Gorilla	1
Rat	31

(a) Which organism is more closely related to man on the basis of evolution? Substantiate your observation.

(b) Explain the reason for the difference in amino acids of haemoglobin of the organisms listed in the table on biochemical basis.

**8. “Bacteria and Human beings are evolved from a common ancestor”
Analyse the statement and give evidences to prove this.**

9. Observe the illustration and write what proof of evolution do you get from these facts?



for first bell online class 48

