

WORKBOOK 4

THE FIRST FOSSILS

PART 4 ASSIGNMENT Complete and hand in to your instructor before commencing Part 5.

Name: Class Date

Fossilised stromatolites (mat-like structures formed by blue green algae) have been found in sediments of the Pilbara Block region of Western Australia. They are regarded by many as the oldest fossils on earth. Stromatolites are found still living not far away in Shark Bay Western Australia. Another deposit of micro fossils is found at “North Pole” in Western Australia in similar Pre-Cambrian rocks. Micro fossils of bacteria, algae and blue green algae have also been found in the Bitter Springs formation of Central Australia which are also classified as Pre-Cambrian. To the date of printing of this text all known Pre-Cambrian micro fossils have almost identical representatives still alive today.

THINK IT THROUGH

4-1 How complex is an algae or bacterial cell compared to a protein chain or an RNA molecule?

4-2 Can protein and RNA survive outside a living cell in today’s world?

4-3 Does the discovery of fully formed fossil cells help the evolutionary theory of Spontaneous Generation of life? Explain your answer.

4-4 Does the discovery of fully formed fossil algae and bacteria cells in what many regard as the world’s oldest fossil bearing rocks help the creationist case that life was specially created to produce its own kind? Explain your answer.

4-5. Why does a matching reciprocal code of a DNA pair enable the repair of a Thymine dimer.

(Hint: Consider what would happen if both strands contain the same coded sequence which was hit by UV radiation. Could it be repaired?)

4-6. The principle of Energy dissipation and loss of Information is also known as the Second Law of Thermodynamics. Can you list any known exceptions to the Second Law?

4-7. Comment on the statement “even though the universe in general is losing energy, local areas such as the earth are receiving energy from the sun, so it would be possible for life molecules to evolve on earth”.

HAND YOUR COMPLETED ASSIGNMENT SHEETS TO YOUR INSTRUCTOR PRIOR TO COMMENCING PART 5

Instructors Comments and Rating
