

Practical Task Term 1: Biosphere to ecosystems

Date: _____

Name: _____

Total	
	30

Duration: 45 minutes

INSTRUCTIONS AND INFORMATION**Read the following instructions carefully before answering the questions.**

1. This is a formal SBA task and must be done under supervised conditions in the classroom.
2. Each learner completes this task on his/her own (under test conditions).
3. Present the answers according to the instructions of each question.
4. Draw all diagrams in pencil and labels in blue ink.
5. The diagrams in the question paper may NOT be drawn to scale.

BACKGROUND INFORMATION

The biosphere is the thin layer of land, air and water around the earth's surface that supports life. The abiotic, or non-living, portion of each ecosystem in the biosphere includes the flow of energy, nutrients, water, and gases and the concentrations of organic and inorganic substances in the environment. The biotic, or living, portion includes organisms based on their methods of acquiring energy: the primary producers, largely green plants; the consumers, which include all the animals; and the decomposers, which include the microorganisms that break down the remains of plants and animals into simpler components for recycling in the biosphere.

Ecological pyramids are a graphical representation in the shape of a pyramid to show the feeding relationship of groups of organisms, and the flow of energy or biomass through the different trophic levels in a given ecosystem.

QUESTION 1: Abiotic factors

Grade 10 learners carried out an investigation to determine the water content,

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