



## LESSON 6 Characteristics of Living Things: What Makes Them Tick

Grade Level: 7-8

### 1. Grades 7-8

**2. Overview** Living things are many and varied. Human beings like you are living things. Cows, lizards, rats and butterflies are living things. Orange trees, and palm trees and other plants are living things. It is generally observed that all living things have certain characteristics common to them. Living things feed, respire, excrete, move, respond to external stimuli, grow and reproduce young ones. These are sometimes referred to as "life processes". There are so many living things that people try to sort them into some kind of order.

**3. Purpose** The purpose of this lesson is to make the students recognise those characteristics which all living things possess. Living things have been classified into two groups- plants and animals.

**4. Objectives** Students will be able to:

- i. List the characteristics of living things
- ii. Describe each of the characteristics
- iii. Give specific examples of living things exhibiting the characteristics.

**5. Resources/materials** The students should be involved in collecting a number of living things:

- Plants of different types and sizes
- Animals-insects, toad/frog, fish in cup of water
- Charts of various animals.

**6. Activities and Procedures** The teacher should begin this lesson by drawing the attention of the students to some easily recognisable differences between living and non-living things. It is difficult to say that only one thing distinguishes living from non-living. We must use a number of distinguishing features, known as CHARACTERISTICS so as to be quite sure. The teacher could present the chart of different animals doing a number of things-feeding, walking, a plant being watered, going to the toilet, a hen with its chicks, etc.

Although plants and animals are regarded as living things, there might be certain things which an animal can do but which a plant cannot do. It is here for instance that movement in plants and animals can be distinguished. Locomotion as distinct from just movement should be explained. Animals perform locomotion while plants do not.

Although also both plants and animals respire, only animals actually breathe. Both plants and animals take in oxygen and give out carbon dioxide during respiration. While both plants and animals need food, green plants on their own manufacture the food which they need while most animals depend on plants and other animals for their food. The process by which green plants manufacture their food is known as PHOTOSYNTHESIS. The conditions under which photosynthesis takes place should be explained.

All living things, both plants and animals reproduce themselves. The two forms of reproduction, asexual and sexual, should be explained. Also, both plants and animals respond to external stimuli. Plants in particular could be shown to respond to light.

Living things excrete. People largely get rid of the materials not needed by the body in a toilet but plants put their waste into the leaves which drop off.

**7. Tying it all together** This lesson should bring out clearly to the student the differences between living and non-living things. The characteristics of living things vary slightly in the animal and plant world but in general, they both have similar characteristics.

**8. Assessment** The teacher should use practical sessions to assess the students. Some test items which could be answered through the usual paper and pencil could be introduced.

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**10. References** Bajah, Sam. Tunde et al (1996) **Integrated Science: A New Approach for Junior Secondary Schools. Book One** [New Edition] Ibadan: University Press, Plc.

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