

LIVING AND NON-LIVING THINGS (KEY)

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. C) Reproduction.

The process by which living things make more of themselves is called reproduction.

2. B) Growth.

Growth allows living things to develop and become more complex as they age.

3. C) By producing seeds or spores.

Plants primarily reproduce through the production of seeds or spores.

4. B) By making their own food through photosynthesis.

Plants primarily obtain energy for survival through photosynthesis.

5. C) Response to stimuli.

This characteristic helps living things survive in their environment by allowing them to react to changes around them.

6.B) Photosynthesis.

Plants use the process of photosynthesis to make their own food.

ADVANCED LEVEL

More than One Answer Type

7. A) Growth, C) Response to stimuli, D) Need for energy.

Reproduction is important for the continuation of a species but not essential for individual survival.

Fill In the Blanks

8. Energy

9. Stimuli.

Matching Type

10.

1. Dogs, Cats, Birds - B. Give birth to live young or lay eggs that hatch into offspring.
2. Plants - C. Produce seeds or spores.
3. Bacteria - A. Divide to create more bacteria.

Answer the Following Questions

11. Living organisms exhibit key features related to their response to stimuli and cellular structure:

Response to Stimuli

- Definition: The ability to detect and react to environmental changes, such as light, temperature, and sound.
- Types of Responses: Immediate reflexes, behavioral adaptations (like migration), and physiological changes (like increased heart rate).
- Importance: Essential for survival, helping organisms find food, avoid danger, and adapt to their environment.

Educational Operating System

Cells

- Basic Unit of Life: All living organisms are made of cells, which can be unicellular (like bacteria) or multicellular (like plants and animals).
- Cell Structure: Cells have membranes, cytoplasm, nuclei, and organelles that perform specific functions.
- Functionality: Cells respond to stimuli through signal transduction and communication, allowing coordinated responses to their environment.

These features enable living organisms to interact effectively with their surroundings and maintain homeostasis.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. B) Reproduction.

The process that ensures life can continue from one generation to the next is reproduction.

2. B) Cells.

The basic building block of all living things is cells.

3. D) Other plants or animals.

Animals primarily use other plants or animals for energy.

4. A) Cells.

The characteristic that allows living things to carry out life processes like growing and reproducing is the presence of cells.

5. A) Sunlight.

The primary source of energy for plants is sunlight.

6. C) Response to stimuli.

This characteristic helps living things survive in their environment by allowing them to react to changes around them.

ADVANCED LEVEL

More than One Answer Type

7. A) Growth, B) Reproduction, C) Response to stimuli, D) Need for energy, E) Cells.

All of the options listed are characteristics of living things.

Fill In the Blanks

8. Photosynthesis

9. Cells

Matching Type

10.

1. Response to stimuli - B. Living things react to what's happening around them, adapting to their environment for survival.
2. Need for energy - C. To carry out life processes like growing, moving, and reproducing.
3. Cells - A. All living things are made up of basic building blocks.

Answer the Following Questions

11.

Living organisms exhibit distinct features related to growth and reproduction, both of which are essential for their survival and continuation of species.

Growth

1. Definition: Growth refers to the increase in size, mass, and complexity of an organism over time.

2. Characteristics:

- Cell Division: Growth occurs through cell division, where cells multiply to form new cells, leading to the development of tissues and organs.

- Development Stages: Organisms often undergo specific developmental stages (e.g., from embryo to adult) that involve differentiation into specialized cells.

- Environmental Influence: Growth can be influenced by environmental factors such as nutrients, light, and water availability.

3. Importance: Growth is vital for the physical development of an organism, enabling it to mature, reproduce, and adapt to its environment.

Reproduction

1. Definition: Reproduction is the biological process by which living organisms produce new individuals, ensuring the continuation of their species.

2. Types:

- Asexual Reproduction: Involves a single organism producing offspring genetically identical to itself (e.g., budding in yeast, binary fission in bacteria).

- Sexual Reproduction: Involves the combination of genetic material from two parents, resulting in genetically diverse offspring (e.g., plants and animals reproducing through seeds and eggs).

3. Importance: Reproduction is crucial for maintaining population stability, allowing for genetic variation, which enhances adaptability and survival in changing environments.

Conclusion

The features of growth and reproduction are fundamental to the life processes of all living organisms. Growth enables organisms to develop and thrive, while reproduction ensures the survival of their species across generations. Together, these processes contribute to the dynamic nature of life on Earth.

FEATURES OF NON LIVING THINGS (KEY)

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. D) All of the above.

Non-living things can be made of wood, metal, plastic, and various other materials.

2. B) They don't have life.

A key feature of non-living things is that they don't have life.

3. C) Both a and b.

Both a toy getting dusty and a paper getting wet are examples of how non-living things can change.

4. B) A metal spoon.

A metal spoon is often mentioned as super tough.

5. B) It will break easily. A glass cup can break easily if it is not handled carefully.

6. A) They are made of different materials.

Non-living things feel different when you touch them because they are made of different materials.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. D) All of the above.

Non-living things do not eat, grow, or move on their own.

2. D) All of the above.

Non-living things come in all shapes, sizes, and colors.

3. B) For sitting.

The primary job of a chair is for sitting.

4. B) For writing.

The job of a pencil is for writing.

5. A) Non-living things.

Non-living things make our lives easier by providing tools and conveniences.

6. C) Bed.

A bed is mentioned as helping you sleep.