

Name \_\_\_\_\_

Date \_\_\_\_\_

## Atmospheric Pressure & Light

Planet Earth is the only known planet that has conditions suitable enough for living organisms to grow, and reproduce and survive. These conditions are a combination of non-living components like water, sunlight, temperature and living components like micro-organisms, plants and animals. The non-living components (forces) of a particular environment that make the conditions ideal for sustenance of life are known as the **A-biotic factors**.



Some of the important abiotic factors that affect living organisms are:

### Light

Light is the main source of energy for many organisms. Natural light plays an important part in the life of most plants as they utilize it in the process of photosynthesis. During photosynthesis, light energy is converted into chemical energy and into complex organic substances that are vital for growth, flowering and germination. Plants are a food source that indirectly transfers energy to animals. For animals, the intensity of light affects their skin color, sensitivity, and sight

### Atmospheric Pressure

Because of the gravitational force of the earth, atmospheric gases are pulled towards the surface of the earth. Many organisms can only survive in particular ranges of atmospheric pressure and when air pressure is low, especially in higher altitudes some may find it difficult to breathe. This is due to the insufficient amount of oxygen present at a certain height. Deep underwater in an ocean the atmospheric pressure increases as the depth of the water increases and again this causes only certain kinds of plants and animals to survive in certain specific ocean regions.

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## **Atmospheric Pressure & Light Multiple Choice Questions**

- 1. Light (sunlight) helps in the process of**
  - a) Photosynthesis
  - b) Reproduction
  - c) Survival
  - d) None of these
  
- 2. Intensity of light affects the \_\_\_\_\_ of animals.**
  - a) Skin color
  - b) Sensitivity
  - c) Sight
  - d) All of the above
  
- 3. The non-living components (forces) of environment that makes survival possible are known as \_\_\_\_\_**
  - a) Biotic Factors
  - b) A-Biotic Factors
  - c) Non-Biotic Factors
  - d) None of these
  
- 4. Atmospheric gases are pulled towards the surface because of**
  - a) Atmospheric pressure
  - b) Gravitational Forces
  - c) High temperature
  - d) All of these

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## Atmospheric Pressure & Light

### *Answer Key*

1. a
2. d
3. b
4. b

### *Explanation of Answers*

1. Photosynthesis is the process by which plants make their food (i.e. glucose) and without sunlight, they cannot make it.
2. For animals the intensity of light affects their skin color, sensitivity, sight etc. So correct option is d
3. The non-living components (forces) of a particular environment that make the conditions ideal for sustenance of life are known as the **A-biotic factors**.
4. Because of the gravitational force of the earth the atmospheric gases are pulled towards the surface

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## Atmospheric Pressure & Light Writing Activity

1. What are A-biotic factors?

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2. Give three examples of A-biotic factors that help you in survival?

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3. How is atmospheric pressure important to us?

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4. Is rainfall an A-biotic factor or biotic factor?

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