**WORKBOOK ANSWERS**

**GRADE 8**

1. **LIFE AND LIVING**

**PHOTOSYNTHEIS**

**Question 1**

1. Photosynthesis
2. Oxygen
3. Radiant/sunlight
4. Chlorophyll
5. Glucose

**Question 2**

1. A = carbon dioxide C = oxygen
2. Glucose
3. Water
4. Atmosphere

**Question 3**

1. Captures maximum sunlight for photosynthesis.
2. Has xylem to transport water to the leaf and phloem to transport manufactured food away.
3. It is the leaf stalk that connects the leaf to the stem. It holds the leaf in a favourable position for maximum photosynthesis to occur.

**Question 4**

* Maintains balance of oxygen and carbon dioxide levels in the atmosphere. Oxygen is released while carbon dioxide is taken up from the atmosphere.
* food that is produced during photosynthesis is used by plants and herbivores.

**RESPIRATION**

**Question 1**

1. Starch
2. Cellular respiration
3. Oxygen
4. Glucose
5. ATP (energy)

**Question 2**

1. Glucose + oxygen carbon dioxide + water + energy
2. Lungs

Skin

Gills

Stomata

1. **Energy** in form of ATP is used by plants and animals for growth, excretion and reproduction.

**Carbon dioxide** is released into the atmosphere.

**Water** gets released by animals as urine, sweat or water vapour. Plants release the water as water vapour during transpiration.

**Question 3**

* To grow
* To excrete
* To digest food
* Muscle action when breathing
* To reproduce

**Question 4**

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| --- | --- |
| **PHOTOSYNTHESIS** | **RESPIRATION** |
| Occurs in green plants only | Occurs in plants and animals |
| Sunlight is required | Not dependant on sunlight |
| Energy storing process | Energy releasing process |
| Gas oxygen is released | Gas carbon dioxide is released |

**Question 5**

1. Clear lime water
2. Clear lime water turns milky.