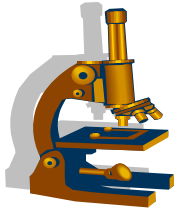




# DISTRICT PUBLIC SCHOOL & COLLEGE DEPALPUR



SUBJECT: SCIENCE

SUMMER VACATION HOMEWORK

SESSION 2021-2022

CLASS: SIX



STUDENT'S NAME: \_\_\_\_\_ FATHER'S NAME: \_\_\_\_\_

CLASS: \_\_\_\_\_ SECTION: \_\_\_\_\_

TOTAL MARKS: \_\_\_\_\_ OBTAINED MARKS: \_\_\_\_\_

TEACHER'S NAME & SIGN: \_\_\_\_\_

SECTION HEAD'S SIGN: \_\_\_\_\_ PRINCIPAL'S SIGN: \_\_\_\_\_



Parent's sign: \_\_\_\_\_

# SINGLE NATIONAL CURRICULUM

*Single National Curriculum Is A Diversion. Quality and Access to Education is what Matters. Single National Curriculum is a must For social cohesion and National Integration*

## ONE NATION ONE CURRICULUM

Non-uniformity in the curriculum has created a gap between the opportunities available for, rich and the poor, leading to disintegration in society. Implementation of a Single National Curriculum at all levels of education ties the society together by eliminating a major disparity which, later on, may prove to be the root cause of other social divides. Single National Curriculum aims to achieve cohesion and integration in society by gathering all and sundry on a single platform to achieve their goals in life. It overlooks the divisions in society which are based on class, color, language, social status, religion and culture, and provides a strong reason to remain united. The effective implementation of the policy of Single National Curriculum is based on inclusion of all forms of knowledge coming from different cultures, introduction of modern methods of learning and focusing on the development of critical thinking among students

### **Salient Features of science according to SNC**

- Realignment in view of latest global trends and practices in Science education
- Addition of Technology based content as separate chapters
- Integration of themes such as conservation, bio-ethics, scientific responsibilities & care for the environment and all living beings

Promotion of inquiry-based learning

Integration of ICT into the curriculum through web links and project work

Integration of STEAM as a cross cutting strand

Parent's sign: \_\_\_\_\_

**BLOCK SYLLABI OF 1<sup>ST</sup> SEMESTER 2021-2022**

Class: 6<sup>th</sup>

Subject: Science

CHAPTER 1 CELLS, TISSUES, ORGANS

(Book and Workbook)

CHAPTER 2 SENSES AND SENSE ORGANS

(Book and Workbook)

CHAPTER 3 PHOTOSYNTHESIS AND RESPIRATION

(Book and Workbook)

CHAPTER 4 LIVING THINGS AND THE ENVIRONMENT

(Book and Workbook)

CHAPTER 5 ATOMS, MOLECULES, MIXTURE, AND COMPOUND

(Book and Workbook)

CHAPTER 6 AIR AND THE ATMOSPHERE

(Book and Workbook)

CHAPTER 7 SOLUTIONS AND SUSPENSIONS

(Book and Workbook)

Parent's sign: \_\_\_\_\_

Organization of the Body



<p>Epithelial Cell</p>	<p>Epithelial Tissue</p>	<p>Epithelium (Skin)</p>	<p>Integumentary System</p>
<p>Osteocyte (Bone Cell)</p>	<p>Skeletal Tissue</p>	<p>Bone</p>	<p>Skeletal System</p>
<p>Ciliated Columnar Epithelium</p>	<p>Respiratory Epithelium</p>	<p>Lungs</p>	<p>Respiratory System</p>
<p>Skeletal Muscle Cell</p>	<p>Skeletal Muscle Tissue</p>	<p>Muscle</p>	<p>Muscular System</p>
<p>Neuron (Nerve Cell)</p>	<p>Nervous Tissue</p>	<p>Brain</p>	<p>Nervous System</p>
<p>Erythrocyte (Red Blood Cell)</p>	<p>Blood (Connective Tissue)</p>	<p>Heart</p>	<p>Circulatory System</p>
<p>Cuboidal Epithelial Cell</p>	<p>Cuboidal Epithelium (Stomach Lining Cell)</p>	<p>Stomach</p>	<p>Digestive System</p>

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**Unit 01: Cells, Tissues, and Organ**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question.

**Question 1: Choose the correct option**

• **What is the main difference between plant and animal cells?**

- (a) Plant cells have a nucleus, animal cells do not
- (b) Animal cell move about
- (c) Plant cell have a cell wall which is easily seen
- (d) Animal cells are always bigger than plant cells

• **Which one of the following substances in a cell traps sunlight?**

- (a) Cytoplasm
- (b) Cellulose
- (c) Cell sap
- (d) Chlorophyll

• **The job of the cell membrane is to:**

- (a) Give a plant cell its shape
- (b) Control what happened inside the cell
- (c) Control what substances go into and out of the cell
- (d) Stop water entering the cell

• **The job of the cell wall in a plant is to:**

- (a) Control what substances go into and out of the cell
- (b) Give a plant cell its shape
- (c) Allow photosynthesis to happen
- (d) Store food for the plant

• **What sort of structure is the heart?**

- (a) A tissue
- (b) An organ system
- (c) An organ
- (d) A group of cells

• **Which of the following is not an organ system?**

- (a) Circulatory system
- (b) One-way system
- (c) Nervous system
- (d) Digestive system

• **Cells of the same type of grouped together to make a:**

Parent's sign: \_\_\_\_\_

- (a) Tissue (c) Organ  
(b) Organ system (d) Organelle

• An organ is made up of several different:

- (a) Organelle (c) Cells  
(b) Tissues (d) Nerve

• An organ is made up of:

- (a) Different cells (c) Different tissues  
(b) Same cells (d) Same tissues

• Chloroplasts are present in:

- (a) Only Animal cells (c) Only Plant cells  
(b) Both a and b (d) None of these

Parent's sign: \_\_\_\_\_

**Unit 01: Cells, Tissues, and Organ**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question.

**Activity:** **Biography of Ibn al-Nafis**

**Web link:** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2612469/>



His full name was Ala al-Din Abu al-Hassan Ali Ibn Abi-Hazm al-Qarshi al-Dimashqi, and so not surprisingly he is commonly referred to as Ibn al-Nafis. He was born in Damascus. **Ibn al-Nafis** (Arabic: ابن نفيس), was an Arab physician from Damascus mostly famous for being the first to describe the pulmonary circulation of the blood. As an early anatomist, Ibn al-Nafis also performed several human dissections during the course of his work, making several important discoveries in the fields of physiology and anatomy. Besides his famous discovery of the pulmonary circulation, he also gave an early insight of the coronary and capillary circulations, a contribution for which he is sometimes described as "the father of circulatory physiology". Apart from medicine, Ibn al-Nafis studied jurisprudence, literature and theology. He was an expert on the Shafi'i school of jurisprudence and an expert physician. The number of medical textbooks written by Ibn al-Nafis is estimated at more than 110 volumes.

**Question 01: Who was the Ibn-al-Nafis?**

**Answer:** Ibn-al-Nafis was an Arab physician from Damascus.

**Answer:** \_\_\_\_\_

**Question 02: For which reason Ibn-al-Nafis was famous?**

Parent's sign: \_\_\_\_\_

**Answer:** Ibn-al-Nafis was famous for being the first to describe the pulmonary circulation of the blood.

**Answer:** \_\_\_\_\_

**Question 03: What was the full name of Ibn-al-Nafis?**

**Answer:** His full name was Ala al-Din Abu al-Hassan Ali Ibn Abi-Hazm al-Qarshi al-Dimashqi.

**Answer:** \_\_\_\_\_

Parent's sign: \_\_\_\_\_



**Unit 01: Cells, Tissues, and Organ****Topic: Objective type (work book)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01****Fill in the blanks**

- Living organisms differ from non-living objects in that they carry out \_\_\_\_\_ vital processes.  
(seven)
- The release of energy from food molecules is called \_\_\_\_\_. (respiration)
- The ability of living things to produce copies of themselves is known as \_\_\_\_\_. (reproduction)
- The ability to respond changes in their surroundings is called \_\_\_\_\_. (sensitivity)
- The removal of waste products that have been produced by the organism is known as \_\_\_\_\_.  
(excretion)
- Organisms are made up of units called \_\_\_\_\_. (cells)
- Cells are surrounded by \_\_\_\_\_. (cell membrane)
- Cell membrane control what enters and leave the \_\_\_\_\_. (cell)
- The \_\_\_\_\_ controls all the activities of the cell. (nucleus)
- Cell wall is made up of \_\_\_\_\_. (cellulose)
- Plant cells contain tiny organelles called \_\_\_\_\_ that make food for their plant by photosynthesis.  
(chloroplasts)

**Question 02:****Match the column****Match the tissues with the job they perform**

Tissues	Special job or Function
Epidermal tissue	Support and strengthen the plant
Photosynthetic tissue	Protect the plant from damage and prevent it from drying up
Supporting tissue	Protect the structure underneath
Epithelial tissue	Carries messages from one part of an animal's body to another

Parent's sign: \_\_\_\_\_

Muscle tissue	Make food for the plants
Nerve tissue	Contract to bring about movement in an animal's body

**Answer:**

Tissues	Special job or Function
Epidermal tissue	Protect the plant from damage and prevent it from drying up
Photosynthetic tissue	Make food for the plants
Supporting tissue	Support and strengthen the plant
Epithelial tissue	Protect the structure underneath
Muscle tissue	Contract to bring about movement in an animal's body
Nerve tissue	Carries messages from one part of an animal's body to another

**Match the plant and animals with their respective organs:**

<b>Plant organs</b>	heart
	brain
	leaves
	eye
<b>Animal organs</b>	lungs
	flowers
	Stomach

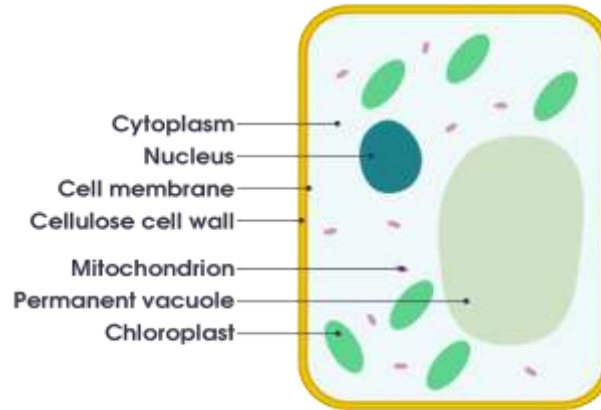
**Answer:** Plant organs are leaves and flower

Animal organs are heart, brain, lungs, stomach

Parent's sign: \_\_\_\_\_

Unit 01: Cells, Tissues, and Organ

Activity: *Draw and Label the diagram of plant cell?*

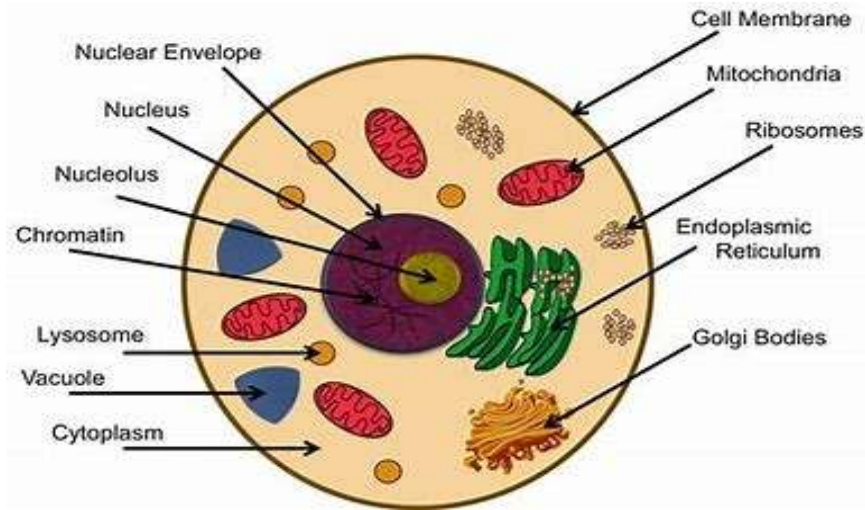


*Draw and label the diagram here:*

A large empty rectangular box provided for the student to draw and label a diagram of a plant cell.

**Draw and label diagram of animal cell**

Parent's sign: \_\_\_\_\_



Parent's sign: \_\_\_\_\_



**Unit 01: Cells, Tissues, and Organ**

**Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Write answers of the following questions on the lines below**

**Q1. A microscope is fitted with a x5 eyepiece and a x20 objective lens. Which answer below shows how much the object will be magnified?**

**A x 5 B x 20 C x 25 D x 100 E x 520**

**Answer:** D x 100

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q2. Which of the following is not a tissue?**

**A: bone B: nerve C: blood D: stomach E: epithelium**

**Answer:** D stomach (it is an organ)

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q3. Why do you usually need to cut a very thin slice of a specimen to look at it under a light microscope?**

**Answer:** So that the material is thin enough for light to be able to pass through it.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q4. Why are cells stained or dyed before being looked at with a light microscope?**

**Answer:** To show up the different parts of the cell, particularly the nucleus and other organelles

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q5. How many cells are there in a unicellular organism? Name two examples of a unicellular organism.**

**Answer:** one;

Amoeba and chlorella are common unicellular organisms.

**Answer:** \_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Q6. Name three different types of specialized cells. Which part of a cell determines how it will specialize?**

**Answer:** Blood cells, nerve cells, root hair cells, palisade cells and stomata. The nucleus of a cell determines how it will specialize.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q7. What is the function of the cell membrane?**

**Answer:** The cell membrane controls the movement of materials into and out of the cell.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q: 8. What is the name of the green-colored pigment inside chloroplasts?**

**Answer:** Chlorophyll

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q.10 Arrange these body parts in order of their size and level of organization in the body: organ, tissue, cell, organ system.**

**Answer:** Cell, tissue, organ, organ system

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q11. Look at the sequence on page 9 showing the relationship between cells, tissues, organs, and organisms in a plant. Using either labelled drawings, or just words, make up a similar sequence for a human being or some other animal.**

**Answer:** One example of the sequence is:

- 1. Cell                      Red blood cell
- 2. Tissue                    Blood
- 3. Organ                    The heart

Parent's sign: \_\_\_\_\_

4. System                      Circulatory system

5. Individual                The human body

**Answer:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Parent's sign: \_\_\_\_\_



**Unit 01: Cells, Tissues, and Organs****Assessment****/20****Question 01****Encircle the correct option****/5**

- Which one of the following substances in a cell traps sunlight?

- (a) Cytoplasm                      (c) Cell sap  
 (b) Cellulose                      (d) Chlorophyll

- The job of the cell membrane is to:

- (a) Give a plant cell its shape  
 (b) Control what happened inside the cell  
 (c) Control what substances go into and out of the cell  
 (d) Stop water entering the cell

- The job of the cell wall in a plant is to:

- (a) Control what substances go into and out of the cell  
 (b) Give a plant cell its shape  
 (c) Allow photosynthesis to happen  
 (d) Store food for the plant

- What sort of structure is the heart?

- (a) A tissue                      (c) An organ  
 (b) An organ system              (d) A group of cells

- Which of the following is not an organ system?

- (a) Circulatory system              (c) Nervous system  
 (b) One-way system              (d) Digestive system

**Question 02****Match the column****/5****Match the tissues with the job they perform**

Tissues	Special job or Function
Epidermal tissue	Support and strengthen the plant
Photosynthetic tissue	Protect the plant from damage and prevent it from drying up
Supporting tissue	Protect the structure underneath

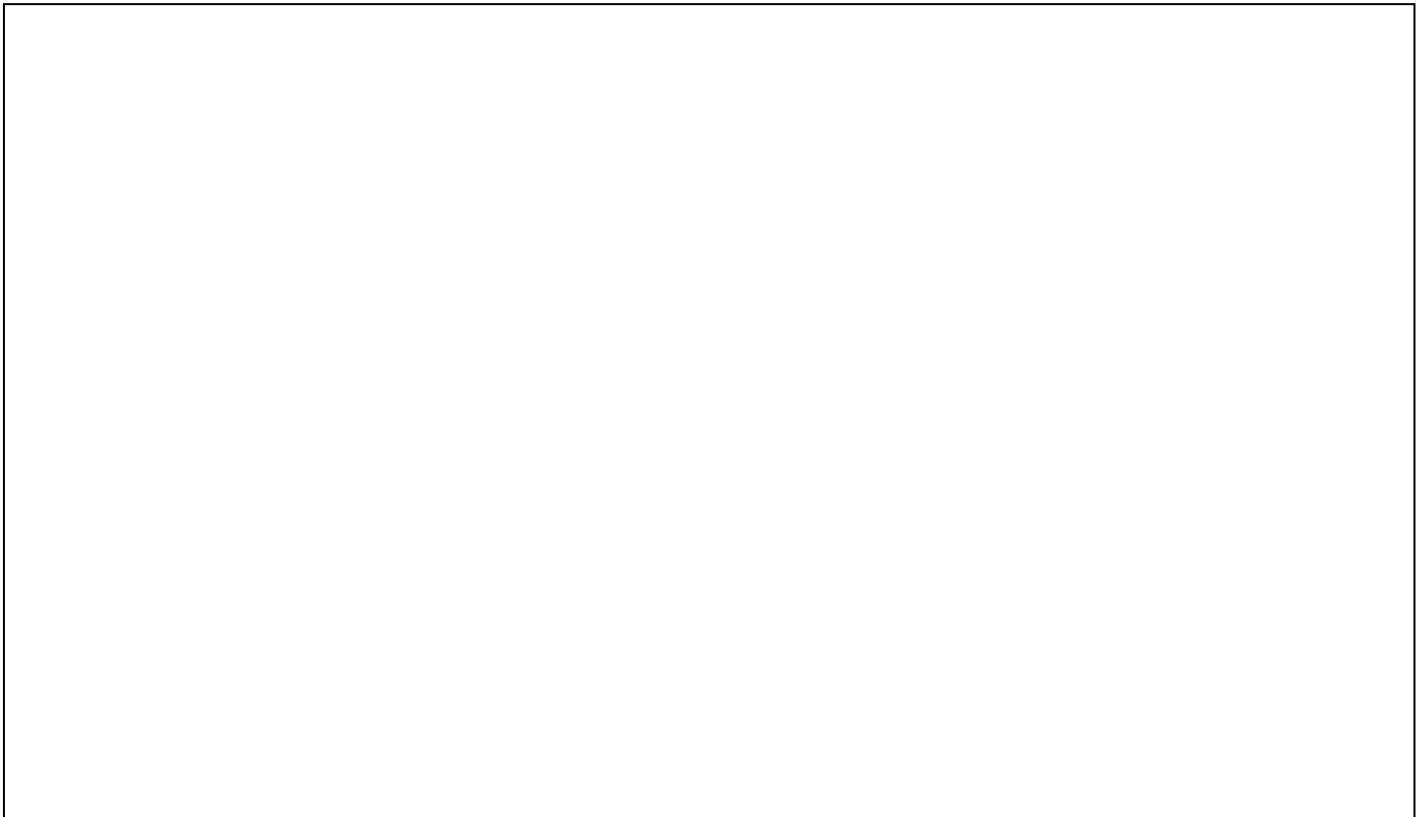
Parent's sign: \_\_\_\_\_

Epithelial tissue	Carries messages from one part of an animal's body to another
Muscle tissue	Make food for the plants
Nerve tissue	Contract to bring about movement in an animal's body

**Question 03**

**Draw and label the diagram of animal cell**

**/5**



**Question 04 Write the answers of the following question**

**/5**

**1) . Name three different types of specialized cells. Which part of a cell determines how it will specialize?**

**/3**

**Answer:** \_\_\_\_\_

**2) What is the function of the cell membrane?**

**/2**

**Answer:** \_\_\_\_\_

Parent's sign: \_\_\_\_\_



**SMELL**



**SENSES**



**SIGHT**



**TASTE**



**HEARING**



**TOUCH**

Parent's sign: \_\_\_\_\_

**Unit 02: Senses and sense organs**

**Topic: Objective type (work book)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01 Choose the correct option**

- **The amount of light entering the eye is controlled by the:**

- (a) Iris (c) cornea
- (b) Lens (d) retina

- **The cornea of the eye is the transparent part of the:**

- (a) Iris (c) lens
- (b) Sclerotic (d) retina

- **A cricketer loses the sight of one eye in a car crash. The other eye is not affected. When he plays cricket again, the effect will be that:**

- (a) He can see the ball only half the time
- (b) He cannot focus on the ball
- (c) He cannot judge how far away the ball is
- (d) The ball look smaller

- **A boy is told to shut his eyes and some food is put on his tongue. He would best be able to guess what it is by using:**

- (a) Taste only (c) taste and feel
- (b) Smell only (d) taste, smell, and feel

- **A man with a heavy cold finds his food does not taste because:**

- (a) The cold germs kill the taste of the food
- (b) The cold germs numb the taste buds
- (c) His blocked nose cuts out his sense of smell
- (d) He has lost his appetite

- **The three tiny bones in the middle ear are there to:**

- (a) Stop the eardrum from collapsing
- (b) Transmit sound vibrations

Parent's sign: \_\_\_\_\_

(c) Transmit the sense of balance

(d) Stop the ear from vibrating too much

- A girl who is going to a wedding sprays some long-lasting perfume behind her ears. A few minutes later she realizes she cannot smell the perfume any more. This is because:

(a) It has all evaporated

(b) She cannot smell behind her ears

(c) perfume only smells for a very short time

(d) her sense of smell has become used to that smell

- The four basic tastes to which your tongue is sensitive are:

(a) Sweet, sour, salt, and bitter

(c) sweet, sour, salt, and pepper

(b) Acid, sour, salt, and bitter

(d) sweet, sour, salt and creamy

- Which part of the eye carries nerve impulses to the brain?

(a) Blind spot

(c) optic nerve

(b) Rodes

(d) cones

- What is the function of the pupil:

(a) Allows the light into eye

(c) clear the image

(b) Change the shape of the lens

(d) carries nerve impulse to the brain

Parent's sign: \_\_\_\_\_

**Unit 02: Senses and sense organs**

**Topic: Objective type**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Activity: Abu Al Qasim Al Zahrawi (Albucasis): Pioneer of Modern Surgery**

Web Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6077085/>



Abu Qasim Khalaf Ibn Abbas Al Zahrawi, known in the West as Albucasis or Zahravius, was born in Muslim Spain. Al Zahrawi is considered the father of operative surgery. He is credited with performance of the first thyroidectomy. He wrote his famous book "*Al Tasreef Liman 'Ajaz 'Aan Al-Taleef*". The last chapter of his comprehensive book, named "On Surgery", was dedicated to surgical instruments. He introduced over 200 surgical tools, a staggering number by all standards. He gave detailed descriptions of for using probes, surgical knives, scalples, and hooks. He also devised and invented surgical scissors, grasping forceps and obstetrical forceps. His illustrations of surgical instruments were the earliest intended for use in teaching and in methods of manufacturing them. Al Zahrawi contributed early descriptions of neurosurgical diagnoses and treatment including management of head injuries, skull fractures and spinal injuries.

**Question 01: Al Zahrawi was the founder of?**

**Answer:** Al Zahrawi is considered the father of operative surgery. He is credited with performance of the first thyroidectomy.

Answer: \_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Question 02: Which is the famous book of Al Zahrawi?**

Answer: He wrote his famous book "*Al Tasreef Liman 'Ajaz 'Aan Al-Taleef*".

Answer: \_\_\_\_\_

**Question 03: What are the contributions of Al Zahrawi?**

**Answer:** He introduced over 200 surgical tools. He gave detailed descriptions of for using probes, surgical knives, scalples, and hooks. Al Zahrawi contributed early descriptions of neurosurgical diagnoses and treatment including management of head injuries, skull fractures and spinal injuries.

Answer: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 02: Senses and sense organ****Topic: Objective type (work book)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01****Fill in the blanks**

- Human skin has nerve ending sensitive to \_\_\_\_\_, pressure, pain, and temperature. **(touch)**
- Sensory nerve endings are called \_\_\_\_\_. **(receptors)**
- Most touch and pressure receptors are concentrated in the skin of the \_\_\_\_\_ and fingertips. **(tongue)**
- Touch and pressure receptors detect the \_\_\_\_\_ of object. **(texture)**
- Touch receptors are also attached to the roots of \_\_\_\_\_. **(hairs)**
- \_\_\_\_\_ act as the warning signal. **(pain)**
- There are separate heat and \_\_\_\_\_ receptors in the skin. **(cold)**
- Pain receptors tell the \_\_\_\_\_ that something is wrong with the body. **(brain)**
- Pain receptors are also found inside the body in most \_\_\_\_\_ and tissues. **(organs)**
- Receptors receive the \_\_\_\_\_ from the outside world. **(signals and stimuli)**

**Question 02****Match the column****Match the organs with the respective senses**

Organ	Senses
Tongue	Sense of touch, detect, heat, cold, pain
Nose	Sense of hearing
Skin	Sense of taste
Eyes	Sense of smell
Ears	Sense of sight

**Answer:**

Organ	Senses
Tongue	Sense of taste

Parent's sign: \_\_\_\_\_

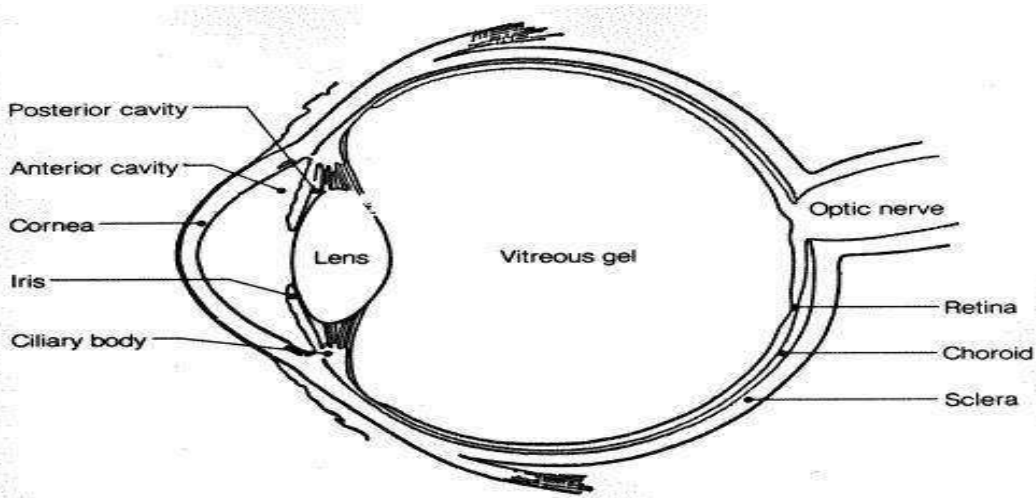


Nose	Sense of smell
Skin	Sense of touch, detect, heat, cold, pain
Eyes	Sense of sight
Ears	Sense of hearing

Parent's sign: \_\_\_\_\_

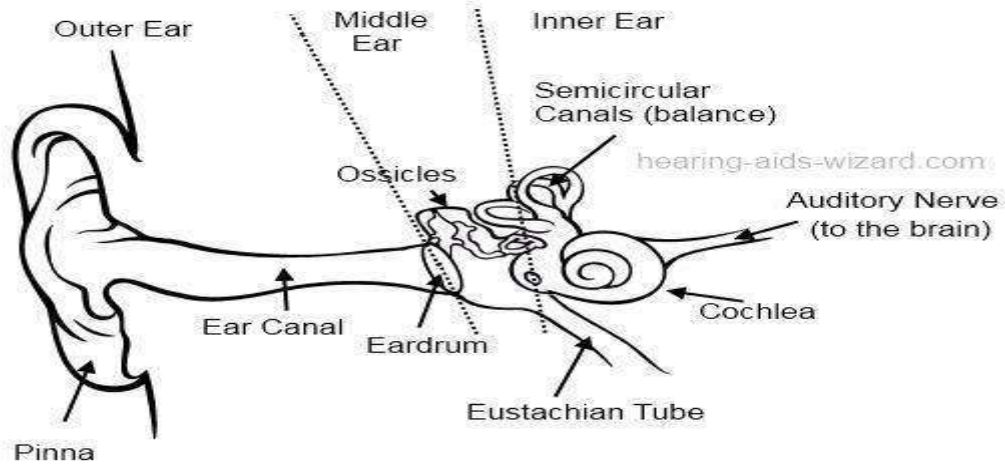
Unit 02: Senses and sense organ

Topic: Diagrams



**Draw and label the diagram of human eye**

A large empty rectangular box provided for the student to draw and label their own diagram of the human eye.



Draw and label the diagram of human ear

This is a large empty rectangular box intended for the student to draw and label a diagram of the human ear, as instructed in the text above.

**Unit 02: Senses and sense organ**

**Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Write answers of the following questions on the lines below**

**Q1.** If you were blindfolded and given a number of different objects to handle, what could you tell about them using only the sensitivity of your fingers?

**Answer:** Their shape, texture, and whether they feel warm or cold

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q2.** A few people are born without a sense of pain. Explain how this might put their health and their lives at risk.

**Answer:** People born without a sense of pain might be unaware of an injury or illness, and so not seek first aid or treatment.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q3.** Apart from the cells which detect chemicals, what other types of sensitive cells (or receptors) must be present on the tongue?

**Answer:** Sensitive cells which detect pressure, temperature, pain, and the sense of touch must also be present on the tongue.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q4.** What is the difference between taste, smell, and flavor?

**Answer:**

- Taste is a sense detected by chemo receptors on taste buds on the tongue.

Parent's sign: \_\_\_\_\_

- Smell is detected by the olfactory organ (organ of smell) in the nose.
- Flavour is a mingled sensation of smell and taste given off by foods.

**Answer:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Q5. When you have a head cold, the lining of your nasal cavity is coated with a layer of mucus. Explain why a head cold affects your sense of smell.**

**Answer:** The senses of smell and taste are linked, so that a head cold affects your sense of smell and also the way your food tastes.

**Answer:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Q6. The following are descriptions of parts of the eye. Can you name each of the parts described?**

**Answer:**

- |  |                             |
|--|-----------------------------|
| • The colored part of the eye                                | <b>iris</b>                 |
| • Gets bigger in dim light, and gets smaller in bright light | <b>pupil</b>                |
| • A transparent layer in front of the eyeball                | <b>cornea</b>               |
| • Changes shape during focusing                              | <b>lens</b>                 |
| • A hole in the iris   | <b>pupil</b>                |
| • Hold the lens in place                                     | <b>suspensory ligaments</b> |
| • A layer of light-sensitive cells                           | <b>retina</b>               |
| • A nerve connecting the eye to the brain                    | <b>optic nerve</b>          |

**Answer:**

The colored part of the eye	
Gets bigger in dim light, and gets smaller in bright light	
A transparent layer in front of the eyeball	

Parent's sign: \_\_\_\_\_

Changes shape during focusing	
A hole in the iris	
Hold the lens in place	
A layer of light-sensitive cells	
A nerve connecting the eye to the brain	

**Q7. Many people over the age of 50 have to wear spectacles for reading. What sort of lenses will these spectacles have? Explain your answer.**

**Answer: In long-sighted people:**

- Light from a near object is brought into focus behind the retina.
- This defect of vision is corrected by wearing converging or convex lenses which
- Focus the image onto the retina.

**Answer:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Q8. What is the difference between short-sightedness and long-sightedness? What causes these defects of vision and how are they corrected?**

**Answer:**

**Short-sightedness:**

1. In short sightedness eye ball becomes long
2. Image is formed in-front of the retina.
3. It is corrected by wearing diverging or concave lens

**Long sightedness:**

1. In long sightedness eye ball becomes short.
2. Image is formed behind the retina.
3. It is corrected by wearing converging or convex lens

**Answer:** \_\_\_\_\_

Parent's sign: \_\_\_\_\_

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**Q9. How is the eye like a camera or camcorder? How is it different?**

**Answer:**

**Similarities:**

- The eye is like a camera or camcorder in a way that:
- It has a lens
- A light-sensitive screen (the retina)
- A means of regulating the amount of light reaching the retina (the iris).

**Differences:**

- The eye is different because
- A camera or camcorder focuses image by moving the lens nearer or further away from the film or sensor while the lens of the eye is able to change shape to focus on near or distant objects.

**Answer:** \_\_\_\_\_

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**Q10. In your own words, describe how the ears turn sound waves into nerve impulses?**

Answer: 1. Sound waves are collected by the funnel-shaped pinna of the ear.

Parent’s sign: \_\_\_\_\_

2. These sound waves pass down to the ear drum and make it vibrate.

3. Behind the ear drum is a chain of three small bones, called the hammer, anvil, and stirrup.

4. When the ear drum vibrates, the three small bones move. This causes vibrations to pass along a tube called the cochlea.

5: As vibrations move along the fluid-filled cochlea. This stimulates the nerve endings into sending nerve impulses along the auditory nerve to the brain, where they are interpreted as sounds.

Answer: \_\_\_\_\_

\_\_\_\_\_

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**Q11. Why would it be dangerous for someone with faulty semicircular canals to ride a bicycle?**

Answer: It would be dangerous for someone with faulty semicircular canals to ride a bicycle because it is in the semicircular canals where the sense of balance is located

Answer: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Parent's sign: \_\_\_\_\_



**Unit 02: Senses and sense organs**

**Assessment**

**/20**

**Question 01**

**Encircle the correct option**

**/5**

• **A man with a heavy cold finds his food does not taste because:**

- (e) The cold germs kill the taste of the food
- (f) The cold germs numb the taste buds
- (g) His blocked nose cuts out his sense of smell
- (h) He has lost his appetite

• **The three tiny bones in the middle ear are there to:**

- (e) Stop the eardrum from collapsing
- (f) Transmit sound vibrations
- (g) Transmit the sense of balance
- (h) Stop the ear from vibrating too much

• **The four basic tastes to which your tongue is sensitive are:**

- (c) Sweet, sour, salt, and bitter                      (c) sweet, sour, salt, and pepper
- (d) Acid, sour, salt, and bitter                      (d) sweet, sour, salt and creamy

• **Which part of the eye carries nerve impulses to the brain?**

- (c) Blind spot    (c) optic nerve
- (d) Rodes    (d) cones

• **What is the function of the pupil:**

- (c) Allows the light into eye                      (c) clear the image
- (d) Change the shape of the lens                      (d) carries nerve impulse to the brain

**Question 02**

**Draw and label the diagram of eye**

**/5**



**Question 03****Match the column****/5****Match the organs with the respective senses**

<b>Organ</b>	<b>Senses</b>
Tongue	Sense of touch, detect, heat, cold, pain
Nose	Sense of hearing
Skin	Sense of taste
Eyes	Sense of smell
Ears	Sense of sight

**Question 04 Write the answer of the following question****/5**

- 1) What is the difference between short-sightedness and long-sightedness? What causes these defects of vision and how are they corrected? **/3**

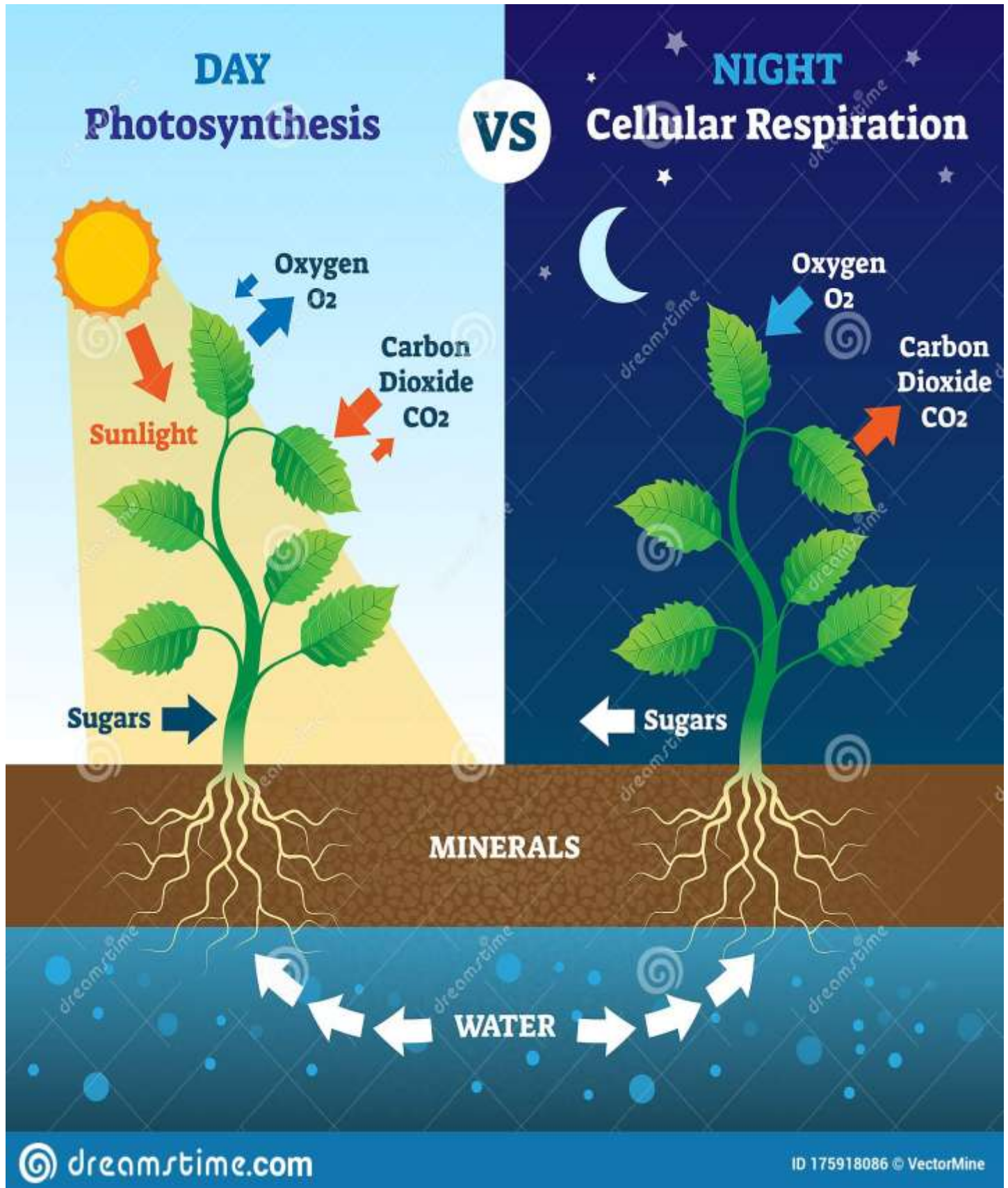
Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 2) When you have a head cold, the lining of your nasal cavity is coated with a layer of mucus. Explain why a head cold affects your sense of smell. **/2**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

Unit 03: Photosynthesis and respiration in plants



Parent's sign: \_\_\_\_\_

**Unit 03: Photosynthesis and respiration in plants**

**Topic: Objective type (workbook)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01: Choose the correct option**

- **The raw materials for photosynthesis are:**

(A) Nitrogen and water                      (B) nitrogen and carbon dioxide

(C) Carbon dioxide and water              (D) carbon dioxide and oxygen

- **The products of photosynthesis are:**

(A) Carbon dioxide and oxygen              (B) carbon dioxide and glucose

(C) Glucose and oxygen                      (D) starch and carbon dioxide

- **The energy for carrying out photosynthesis is obtained from:**

(A) Chlorophyll                      (B) oxygen                      (C) sunlight                      (D) carbon dioxide

- **Green plants produce carbon dioxide:**

(A) only at night                      (B) only during the day                      (C) all the time                      (D) none of the time

- **Many plants change the glucose produced during photosynthesis in to:**

a) starch                      b) carbon dioxide                      c) fats                      d) mineral salts

- **A leaf is tested for the presence of starch. When is most starch likely to be present?**

a) after rain    b) first thing in the morning

c) after several hours of darkness                      d) after a long sunny day

- **The product of respiration are:**

a) carbon dioxide and starch                      b) carbon dioxide, water, and energy

c) oxygen and carbon dioxide                      d) oxygen, carbon dioxide, and energy

Parent's sign: \_\_\_\_\_

Unit 03: Photosynthesis and respiration in plants

Topic: Objective type

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Activity:** Ibn al-Baitar

**Web link:** <https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/ibn-al-baitar>



Figure 2. Ibn Al-Baitar's Kitab

Arab botanist and pharmacist whose works included botanical and pharmaceutical encyclopedias. Ibn al-Baitar spent his early career in Spain where he collected a number of herbs and medicinal plants. His Kitab al-jami fi al-adwiya al-mufrada, which remained in wide use until the late eighteenth century, discusses some 1,400 medicinal plants, more than 200 of which had not been previously identified. Kitab al-mlughni fi al-adwiya almufrada, his other major work, discusses a variety of drugs and their specific application to a variety of ailments.

**Question 01: Who was the Ibn al Baitar?**

Parent's sign: \_\_\_\_\_

**Answer:** Ibn al Baitar was an Arab botanist and pharmacist whose works included botanical and pharmaceutical encyclopedia

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Question 02: What was the working of Ibn al Baitar?**

**Answer:** Ibn al-Baitar spent his early career in Spain where he collected a number of herbs and medicinal plants. His Kitab al-jami fi al-adwiya al-mufrada, which remained in wide use until the late eighteenth century, discusses some 1,400 medicinal plants, more than 200 of which had not been previously identified. Kitab al-mlughni fi al-adwiya almufrada, his other major work, discusses a variety of drugs and their specific application to a variety of ailments

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 03: Photosynthesis and respiration in plants****Topic: Objective type**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01 Fill in the blanks**

- Green plants make their own food by using a process called \_\_\_\_\_. (**photosynthesis**)
- The waste product of photosynthesis is \_\_\_\_\_. (**Oxygen**)
- The organelle in a leaf which is responsible for photosynthesis is called \_\_\_\_\_. (**chloroplast**)
- The green pigment present in chloroplast is called \_\_\_\_\_. (**chlorophyll**)
- Increasing the amount of carbon dioxide in the air increases both the rate of photosynthesis and \_\_\_\_\_ of the plant. (**growth**)
- The best temperature for photosynthesis is \_\_\_\_\_. (**30C**)
- The \_\_\_\_\_ light there is, the faster the rate of photosynthesis. (**more**)

**Question 02 Match the column**

**Match the product with respective processes**

<b>Photosynthesis</b>	Energy
	Water
<b>Respiration</b>	Glucose
	Oxygen
	Carbon dioxide

**Answer:**

Photosynthesis: Glucose + Oxygen

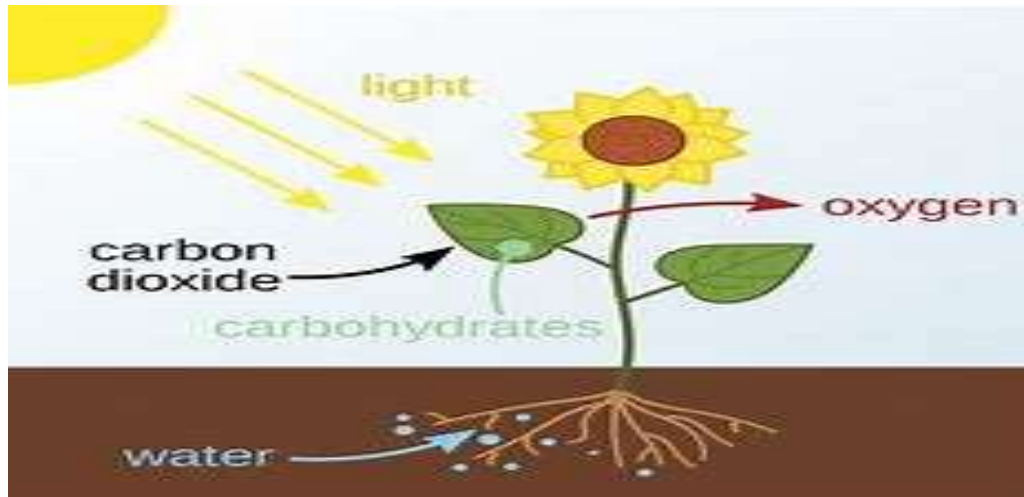
Respiration: Carbon dioxide+ water+ energy

Parent's sign: \_\_\_\_\_

Unit 03: Photosynthesis and respiration in plants

Topic: Diagram

Activity: Diagrams



Draw and label the diagram for the process of Photosynthesis:

A large empty rectangular box provided for the student to draw and label their own diagram of the photosynthesis process.

Parent's sign: \_\_\_\_\_



**Unit 03: Photosynthesis and respiration in plants**

**Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**1) What is the main difference between animals and plants in the way they obtain their food?**

**Answer:** The main difference between plants and animals in the way they obtain their food is that plants make their own food from simple raw materials (carbon dioxide and water) during the process of photosynthesis. Animals need ready-made food and obtain it by eating plants, or by eating animals

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2) What substances must a plant take in, in order to photosynthesis? Where do these substances come from?**

**Answer:** The two raw materials for photosynthesis are carbon dioxide gas from the air and water from the soil.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**3) What is the name of the chemical process that provides a plant with the energy to carry out all its living activities? When does this process occur?**

**Answer:** The chemical process that provides a plant with its energy is respiration. This process occurs all the time, by night and by day.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**4) Why is it an advantage for most leaves to be broad and thin?**

**Answer:** It is an advantage for the leaves to be broad, so that they expose maximum area to the sunlight needed for photosynthesis. It is an advantage for the leaves to be thin, so that the sunlight can penetrate in to

Parent's sign: \_\_\_\_\_

the chloroplasts and carbon dioxide and oxygen can diffuse in to and out of the leaf.

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**5) Why does photosynthesis usually stop at night or in very cold weather?**

**Answer:** 1) Photosynthesis usually stops at night, because light is necessary for it.  
2) It stops in very cold weather because the enzymes responsible for photosynthesis will only carry out their chemical reactions between certain temperatures.

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**6) A scientist carried out some measurements on a leaf. She found that leaf was giving out carbon dioxide and taking in oxygen. Does this prove that the leaf was not carrying out photosynthesis? Explain your answer.**

**Answer:** The leaf in the experiment may have been photosynthesizing but at a slower rate than respiration was occurring. The temperature or amount of light may have been too low for photosynthesis to occur at a rate where the amount of oxygen given out exceeded the amount being used by the leaf for respiration

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**7) Animals and plants are using up oxygen all the time. Why does the amount of oxygen in the atmosphere not go down?**

**Answer:** The amount of oxygen in the atmosphere stays more or less constant because the oxygen produced by plants during photosynthesis balances the amount of oxygen used by plants and animals during respiration.

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 03: Photosynthesis and respiration in plants**

**Assessment**

**/20**

**Question 01**

**Encircle the correct option**

**/5**

- **The raw materials for photosynthesis are:**

(A) Nitrogen and water            (B) nitrogen and carbon dioxide  
(C) Carbon dioxide and water    (D) carbon dioxide and oxygen

- **The products of photosynthesis are:**

(A) Carbon dioxide and oxygen    (B) carbon dioxide and glucose  
(C) Glucose and oxygen            (D) starch and carbon dioxide

- **The energy for carrying out photosynthesis is obtained from:**

(A) Chlorophyll    (B) oxygen            (C) sunlight            (D) carbon dioxide

- **Green plants produce carbon dioxide:**

(a) only at night    (B) only during the day    (C) all the time    (D) none of the time

- **Many plants change the glucose produced during photosynthesis in to:**

a) starch    b) carbon dioxide    c) fats    d) mineral salts

**Question 02**

**Fill in the blanks**

**/5**

- Green plants make their own food by using a process called \_\_\_\_\_.
- The waste product of photosynthesis is \_\_\_\_\_.
- The organelle in a leaf which is responsible for photosynthesis is called \_\_\_\_\_.
- The green pigment present in chloroplast is called \_\_\_\_\_.
- Increasing the amount of carbon dioxide in the air increases both the rate of photosynthesis and \_\_\_\_\_ of the plant.

**Question 03**

**Match the column**

**/5**

**Match the product with respective processes**

Photosynthesis	Energy
----------------	--------

Parent's sign: \_\_\_\_\_

	Water
<b>Respiration</b>	Glucose
	Oxygen
	Carbon dioxide

**Question 04**      **Write the answers of the following question**      **/5**

**1) Why does photosynthesis usually stop at night or in very cold weather?**      **/3**

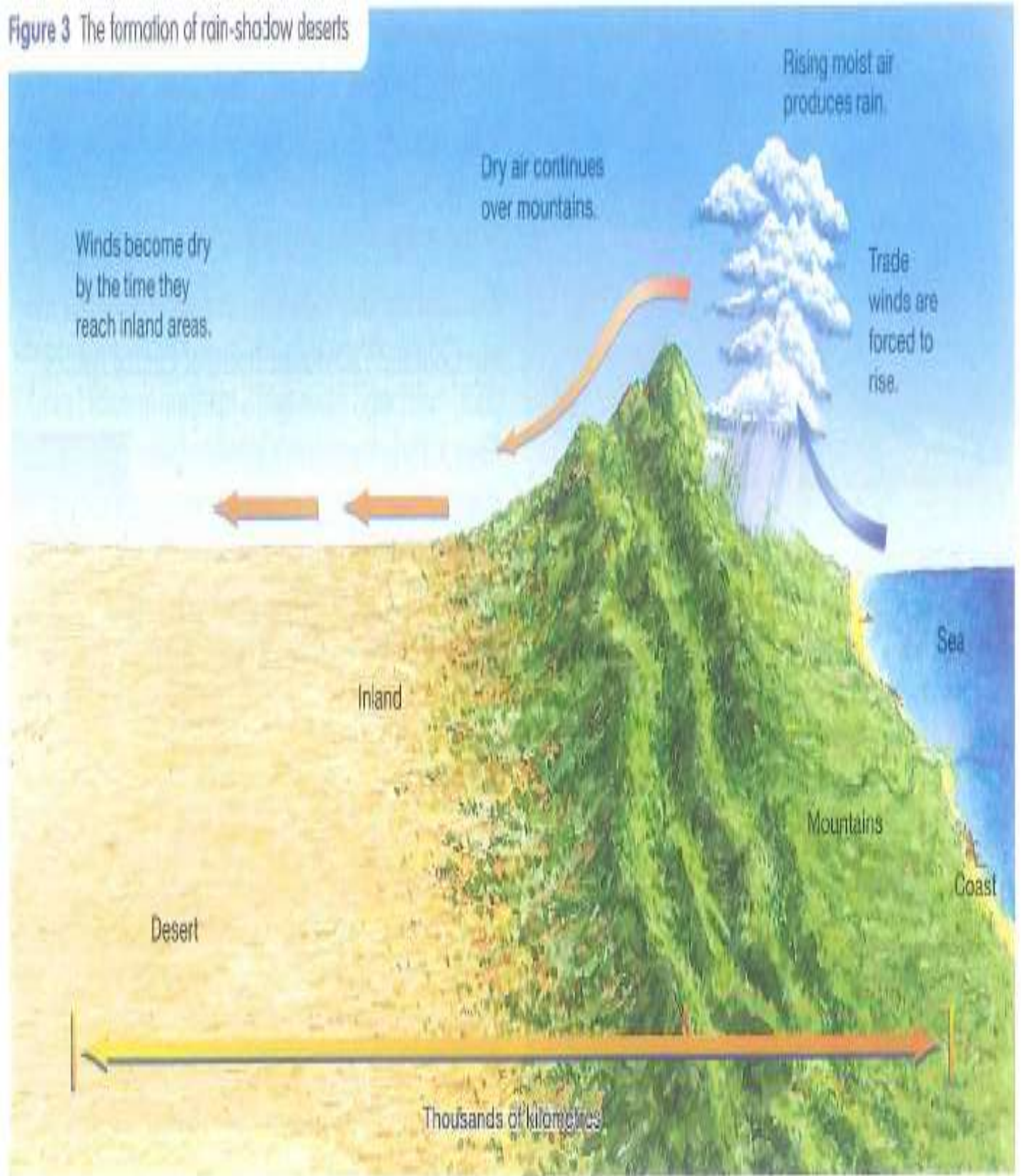
Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2) What substances must a plant take in, in order to photosynthesis? Where do these substances come from?**      **/2**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

Figure 3 The formation of rain-shadow deserts



Parent's sign: \_\_\_\_\_

**Unit 04: Living thing and the environment**

**Topic: Objective type (workbook)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 01 Choose the best option**

- **All the plants and animals living in one place, such as a park, make up a:**  
a) Habitat b) ecosystem c) collection d) community
- **Everything around a living thing that affect its way of life is called its:**  
a) Environment b) home c) habitat d) community
- **Which of the following does not form part of the physical environment of a living thing:**  
a) Climate b) soil c) plant life d) light
- **Because plants are almost the only living things in the world which can make their own food, they are often called:**  
a) Eater b) producers c) consumers d) scavengers
- **Animals which eat plant food are called :**  
a) Primary consumers c) Scavengers  
b) secondary consumers d) carnivores
- **The main decomposers which bring about the decay of dead organisms are :**  
a) Green plants c) bacteria and fungi  
b) Parasites d) fungi and invertebrates
- **Bacteria and fungi in an ecosystem:**  
a) Return energy to the plant  
b) Use up the nutrients in the ecosystem  
c) Use up carbon dioxide  
d) Release nutrients from dead plants and animals
- **A lichen, which consists of a fungus and an alga living together for the benefit of both, is an example of:**  
a) Community living b) mutualism c) parasitism d) decomposition
- **A plant or animals which lives at the expense of another living thing is a :**  
a) Carnivore b) producer c) parasite d) insect

Parent's sign: \_\_\_\_\_

**Unit 04: Living thing and the environment**

**Topic: Objective type**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Activity:** Louis Pasteur

**Web link:** <https://www.britannica.com/biography/Louis-Pasteur>



Louis Pasteur was born in France. He was a French chemist and microbiologist who was one of the most important founders of medical microbiology. Pasteur's contributions to science, technology, and medicine are nearly without precedent. He pioneered the study of molecular asymmetry; discovered that microorganisms cause fermentation and disease; originated the process of pasteurization; saved the beer, wine, and silk industries in France; and developed vaccines against anthrax and rabies. He gave the Germ theory of fermentation.

**Question 01: Who was Louis Pasteur?**

**Answer:** He was a French chemist and microbiologist who was one of the most important founders of medical microbiology.

Answer: \_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Question 02: What was the contribution of Louis Pasteur?**

**Answer:** Pasteur's contributions to science, technology, and medicine are nearly without precedent. He pioneered the study of molecular asymmetry; discovered that microorganisms cause fermentation and disease; originated the process of pasteurization; saved the beer, wine, and silk industries in France; and developed vaccines against anthrax and rabies. He gave the Germ theory of fermentation.

Answer: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Parent's sign: \_\_\_\_\_



**Unit 04: Living thing and the environment****Topic: Objective type**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Question 1****Fill in the blank**

- All the plants and \_\_\_\_\_ living in one place make up a community. **(animals)**
- A \_\_\_\_\_ of plants and animals and their physical or non living environment make up an ecosystem. **(community)**
- The living part of the park is called \_\_\_\_\_. **(biotic environment)**
- An aquarium, a rotting log, an orchard, a desert, and a rainforest are \_\_\_\_\_. **(ecosystem)**
- The \_\_\_\_\_ is everything around an organism which affects its way of life. **(environment)**
- Fungi, bacteria and other microscopically small living things are called \_\_\_\_\_. **(protists)**
- Most protists are \_\_\_\_\_ celled organisms. **(single)**
- A \_\_\_\_\_ is the natural home of a living organism. **(habitat)**
- Giant pandas live in the \_\_\_\_\_ of central China. **(mountains)**
- Microscopically small animal amoeba lives in \_\_\_\_\_ habitat. **(small)**
- Plants need light for the process of \_\_\_\_\_. **(photosynthesis)**
- Mosses and ferns live in shade of \_\_\_\_\_. **(trees)**
- Sandy soil is well-drained and dry than \_\_\_\_\_ soil. **(clay)**

**Question 02:****Match the column**

**Match the physical environment with respective area**

<b>Desert</b>	Low rain fall
	High rain fall
	Temperature high during day
	High all the time
<b>Tropical rain forest</b>	High rain fall

Parent's sign: \_\_\_\_\_

	Low rain fall
	Animal active in day and night
	Few animals active in night which shelter in burrows

**Answer:**

<b>Desert</b>	Low rain fall
	Temperature high during day
	Few animals active in night which shelter in burrows
	Little humus in soil
<b>Tropical rain forest</b>	High rain fall
	High all the time
	Animal active in day and night
	Thick layer of humus in the soil

Parent's sign: \_\_\_\_\_

Date: 28<sup>th</sup> July, 2021

Day: Wednesday

**Unit 04: Living Things and the environment**

**Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Q1. What is the difference between a community, a habitat, and an ecosystem?**

**Answer: Community:** A community is all the plants and animals living within a defined area. **Habitat:** A habitat is the place in which an organism or a community of organisms lives. **Ecosystem:** An ecosystem is a biological community and the physical environment associated with it.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q2. What is the biotic environment?**

**Answer:** The biotic environment is the living things and their activities which affect the environment in which they live.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q3. How might animals depend upon plants, including trees, even if they do not eat those plants? Explain your answer.**

**Answer:** Animals that do not eat plants might depend upon trees and other plants for shelter, protection, nest sites and, of course, the oxygen they breathe.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

**Q4. What kind of things make up the physical environment of a living organism?**

**Answer:** The things which make up the abiotic or physical environment of an organism include climatic factors, such as sunlight, rainfall, temperature, water and carbon dioxide etc.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Q5. Do human beings have the greatest effect on the physical environment or the biotic environment of organisms? Explain your answer.**

**Answer:** Humans have the biggest effect on the biotic environment, because of hunting, the destruction of habitats, the effects of pollution, and the use of chemical pesticides to control weeds, pests, and diseases. Even when human activities affect the abiotic environment, this still has an impact on the plants, animals, and other organisms living in an ecosystem.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 04: Living Things and the environment****Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Q6. A camel has long eyelashes, a hump containing fat, and large padded feet. It can go for five days without drinking. It can then drink up to 130 Litres of water in ten minutes. A camel also produces little sweat or urine. Describe how these features help a camel to survive in the desert.**

**Answer:**

- **Eyelashes:** It protects the eyes from wind-blown dust and sand.
- **Hump:** It contains fat which can be used during respiration to produce energy and water.
- **Padded feet:** Its padded feet spread its weight so that it does not sink into the sand.
- **Sweat and urine:** It produces little sweat or urine, so it does not lose much water by excretion.
- **Water consumption:** The camel's rapid and large consumption of water, when available, allows it to travel long distances between drinks.

**Answer:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Q7. Make a table with six columns with the following headings: producers, primary consumers, secondary consumers, parasites, scavengers, and decomposers. Write the names of these organisms in the correct column: cow, buttercup plant, lion, bread mould (a kind of fungus), lettuce, earthworm, flea, caterpillar, tapeworm, crow, mushroom, fox, leech. Choose some more organisms to add to the lists.**

**Answer:**

producers	primary consumers	secondary consumers	parasites	scavengers	decomposers
buttercup plant lettuce	cow caterpillar	lion fox	Flea Tapeworm	crow	bread mould mushroom

Parent's sign: \_\_\_\_\_

			leech		earthworm
--	--	--	-------	--	-----------

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q8. How are the teeth and other body parts of a herbivore adapted, or suited, to its diet? How is a carnivore adapted to its diet?**

**Answer:**

1. **Herbivore:** The teeth of a herbivore are adapted for eating plants especially grass.

**Incisor Teeth:** The incisor teeth have chisel-shaped edges for cutting grass and other plants.

**Molars and Pre-molars:** These have flat surfaces with ridges for grinding food.

**Canine:** These are absent or very small.

The herbivores have long digestive system for the digestions of food.

2. **Carnivores:** The teeth of carnivores are adapted to catching and eating other animals.

**Incisor Teeth:** The incisors teeth are used for cutting flesh.

**Canines:** These are used to pierce the prey when it is captured.

**Premolars and molars:** These are used for shearing flesh from bones.

The carnivores have short digestive system for the digestions of food.

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

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**Q9. In general, why would you expect a carnivore to be:**

- a) camouflaged**                      **b) larger than a herbivore**

**Answer:** a. Carnivores are camouflaged so that they can approach their prey without being seen.

b. Most carnivores are larger than their prey, so that they can easily overwhelm it.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q10. Why are herbivorous animals generally poor fighters, and better at defense than attack?**

**Answer:** Herbivorous animals are generally poor fighters because their bodies are quite large and most of them lack the sharp teeth and claws. However many herbivores are camouflaged and can run fast over short distances.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 04: Living Things and the environment**

**Topic: Exercise (Answer/Question)**

**Learning Objectives:** Students will be able to give logical and conceptual answer any asked question

**Q11. Why do carnivores usually live on their own, yet herbivores live in groups such as flocks and herds?**

**Answer: 1.** Most carnivores live on their own so that they can use stealth to approach their prey.

2. Many herbivores live in groups, because there are then many eyes and ears to keep alert for approaching danger.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q12. When a beef tapeworm is living in the human gut, how does the tapeworm benefit and how does the human suffer?**

**Answer:** A tapeworm living in the human gut is protected from changes to its environment and it receives already-digested food. Victim of tapeworm suffer a loss of appetite, abdominal pains, loss of weight, nausea, and dizziness. The tapeworm's head may tear the wall of the intestine, causing wounds that can be infected with bacteria.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q13. Suggest some ways in which the infection of humans by beef tapeworms can be stopped.**

**Answer: 1.** Dispose off sewage safely so that the eggs do not contaminate the food and drink of cattle.

2. Proper cooking of beef will kill parasite.

3. All types of tapeworm infections can be treated with a drug called quinacrine.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_



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**Q14. Does a parasite have any special problems not usually met with by other plants and animals? Explain your answer.**

**Answer:** The biggest problem a parasite has is in finding the correct host plant or animal. This is because most parasites have evolved to only feed on one special type of host plant or animal.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q15. What would happen if all the bacteria on this planet suddenly died?**

**Answer: 1.** If all the bacteria on Earth suddenly died, there would be no more bacterial diseases such as tuberculosis, leprosy, cholera, typhoid fever etc.

**2.** Without bacteria the bodies of dead plants and animals would accumulate rapidly.

**3.** Bacteria also play a part in digesting food, particularly in the guts of herbivores and omnivores.

**4.** Bacteria can also be used to ripen cheese, produce vinegar and yogurt.

**5.** Bacteria living on the roots of certain plants fix nitrogen from the air and increase soil fertility.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q16. When bees and other nectar-seeking insects visit flowers, how do the insects benefit? How do the flowers benefit?**

**Answer:** The insects benefit by the food in the form of nectar and pollen. The flowers benefit by being cross-pollinated with the pollen from another flower of the same kind.

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_

**Unit 04: Living thing and the environment**

**Assessment**

**/20**

**Question 01**

**Encircle the correct option**

**/5**

- **Everything around a living thing that affect its way of life is called its:**

a) Environment b) home c) habitat d) community

- **Which of the following does not form part of the physical environment of a living thing:**

a) Climate b) soil c) plant life d) light

- **Because plants are almost the only living things in the world which can make their own food, they are often called:**

a) Eater b) producers c) consumers d) scavengers

- **The main decomposers which bring about the decay of dead organisms are :**

a) Green plants            c) bacteria and fungi

b) Parasites                d) fungi and invertebrates

- **Bacteria and fungi in an ecosystem:**

a) Return energy to the plant

b) Use up the nutrients in the ecosystem

c) Use up carbon dioxide

d) Release nutrients from dead plants and animals

**Question 02**

**Fill in the blanks**

**/5**

- A \_\_\_\_\_ of plants and animals and their physical or non living environment make up an ecosystem.
- The living part of the park is called \_\_\_\_\_.
- An aquarium, a rotting log, an orchard, a desert, and a rainforest are \_\_\_\_\_.
- The \_\_\_\_\_ is everything around an organism which affects its way of life.
- Fungi, bacteria and other microscopically small living things are called \_\_\_\_\_.

**Question 03**

**Match the column**

**/5**

**Match the physical environment with respective area**

<b>Desert</b>	Low rain fall
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Parent's sign: \_\_\_\_\_

	High rain fall
	Temperature high during day
	High all the time
<b>Tropical rain forest</b>	High rain fall
	Low rain fall
	Animal active in day and night
	Few animals active in night which shelter in burrows

**Question 04 Write the answer of the following question /5**

**1) Suggest some ways in which the infection of humans by beef tapeworms can be stopped. /3**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2) When bees and other nectar-seeking insects visit flowers, how do the insects benefit? How do the flowers benefit? /2**

Answer: \_\_\_\_\_  
\_\_\_\_\_

Parent's sign: \_\_\_\_\_