Cosmo School

Worksheet for Vacation Work

Class Seven

Assalamu alaikum

Dear students

Here is your vacation H.W. for all the students of class 7 (Both section)

You need to study the book first and then answer the questions in different chapters.

We are giving you one week time for answering the questions of every chapter/topic.

This means than if you get worksheet of 4 chapters/topics then you'll finish them in 4 weeks.

Write the answers in your copy and email them (best as scanned pdf) (you may use CAMSCANNAR App) to your teacher.

For any special need, you may contact your subject teacher through the email/phone. If you need any phone call, do it by yourself.

You have to email the answers of every chapter/topic in every of the weeks.

Thank You

M.A. Zinnah

Mentor, COSMO SCHOOL

SENIOR SECTION

Contact: (by you only)

sharminakter376@gmail.com

01761412767

Chapter-1: Lower organisms

1. What is microbe? Describe the classification of microbial world.
2. Describe the structure and characteristics of virus (Bacteriophage) with figure.
3. Why is virus called true parasite?
4. Why is virus called accellular?
5. Describe the classification of bacteria.
6. Discuss the importance of bacteria.
7. Why bacteria are the main basis of Genetic engineering?
8. Why is bacteria called primitive cell?
9. Make a list with the diseases caused by virus and bacteria.
10. Write down the differences between virus and bacteria.
11. Why is fungi non-green plant ? /saprophytes ?
12. Mention the characteristics of fungi.
13. How to prevent fungal infection?
14. Discuss the economic importance of fungi.
15. Mention the names of diseases caused by fungal infection.
16. Discuss the characteristics of algae.
17. Mention the use of marine algae.
18. Discuss the harmfulness of algae.
19. Discuss the structure and function of amoeba with picture.
20. Discuss the structure and function of entamoeba with picture.
21. Discuss the reproduction system of entamoeba (amoeba).
22. What are pseudopodia? Mention the function of pseudopodia.
23. Mention the names of the responsible organisms for dysentery.
24. How to prevent microbial infections?
25. How to infect animals and human beings by microorganisms (virus, bacteria and amoeba).
26. What do you mean by “Cyst”?

Chapter-2: Cellular organization of plants and animals

1. What are cell wall and protoplasm? Describe their structure and functions.
2. What are cytoplasm and cytoplasmic organelles?
3. Mention the names of cytoplasmic organelles.
4. What is the difference between protoplasm and cytoplasm?
5. Draw labeled diagrams of plant cell and animal cell.
6. Mention the differences between plant cell and animal cell.
7. What is cell vacuole? Mention its function.
8. What is plastid? Describe the types of plastid and their functions.
9. Explain one type of Chloroplast may be changed to another type.
10. What is mitochondria? Describe its structure and function with figure.
11. Why is mitochondria called power house of the cell?
12. What are golgi body and centriole? Mention their function.
13. What is nucleus? Describe the different parts of nucleus and their functions.
14. What is karyolymph ?Draw a labeled diagram of nucleus.
15. What are unicellular, multicellularorganisms and tissue?
16. What are maristematic tissue and permanent tissue? Mention their characteristics and functions.
17. What is epithelial tissue?Mention its characteristics and functions.
18. What is muscular tissue?Mention its types, characteristics and functions.
19. What is cardiac muscle?
20. What is connective tissue and nerve tissue ? Mention their functions.
21. What is neuron? Draw a labeled figure of a single neuron.
22. Discuss the importance of bones.
23. What is blood, cartilages and tendon?
24. Differentiate between the followings-
    a) Meristematic and permanent tissue
    b) Voluntary and involuntary muscles

Chapter-3: External morphology of plants

1. Describe the types of main root on the basis of the shapes.
2. Describe the classifications of adventitious roots which are modified for storage of food.
3. Describe the characteristics and functions of prop roots, stilt roots, climbing roots, respiratory roots and sucking roots with examples.
4. Why is Gold Creeper called parasitic root?
5. Explain the necessity of respiratory roots.
6. What are the main reasons for modification of roots?
7. What type of roots swell up irregularly?
8. What is meant by modification of stem?
9. What are the main reasons for modification of stem?
10. Describe the characteristics and functions of Tuber, Rhizomes, Bulbs, Corns, Stolen, Phylloclade and Thorn with examples.
11. How can you differentiate between phylloclades and thorns?
12. What are Runner, Offset, Bulbils, stem tendrils and leaf tendrils? Give examples.
13. Why pitcher plant is called insect trap?
14. Weather the body of a cactus is stem or leaf.-explain.
15. How does reproduction occur through leaves in Bryophyta?
16. Why are potatoes not roots?
17. Mention the differences between potatoes and sweet potatoes.
18. Mention the uses of ginger, turmeric and garlic.
19. Describe the morphology of Potato and Onion .
20. Evaluate the importance of Potato and Onion in our national economy.

Chapter-6: Structure Of Matter

1. Give the definition of **Matter.**
2. What is the reason of the variation of matter?
3. What is the difference between **Compound** and **Element**?.
4. What is **Mixture**??
5. Who is **Democritus**? What did he do?
6. What is **Atom**?
7. Write down the differences between **Atom** and **Molecule**.
8. When did Dalton give his atomic theory?
9. Write down **Dalton's Atomic Theory**.
10. Define "**Symbol**" and "**Formulae**".
11. Complete the following table:

Name	**Symbol**	**Name**	**Formulae**
Hydrogen		Sodium Chloride	
Helium		Calcium Oxide	
Lithium		Potassium Iodide	
Beryllium		Sulfur Dioxide	
Boron		Carbon Dioxide	
Carbon		Calcium Sulfate	
Nitrogen		Calcium Sulfite	
Oxygen		Potassium Nitrate	
Fluorine		Potassium Nitrite	
Iron		Sodium Carbonate	
Chlorine		Aluminium Phosphate	
Bromine		Carbon Mono-oxide	
Iodine		Water	

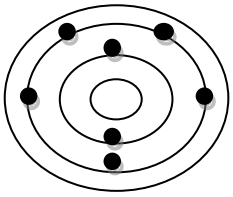
12. Why is water used as universal solvent?

13. How many elements have been invented, how many have found in nature and how many have made artificially?

14. What will you find if you break an atom?

15. If there is two Hydrogen atom and one Oxygen atom in a compound, what will be the name of that compound?

16.



a) What is the proton and neutron number in the above figure?

b) If the above figure carries 3 more electrons, then the electronic configuration will symbolize which element? Explain.

Chapter-7: The Use Of Energy

1. Define **Work, Power** and **Energy.**

2. A rickshaw puller has to work in order to go from one place to another. In other case, a rickshaw puller needs 10 minutes to go from one place to another and another needs 15 minutes to pass the same distance. Who works more between these two persons? Explain.

3. What is **Energy**? Write down the relation between work and energy.

4. Define the following Energies with examples:

a) **Mechanical** Energy: (i) **Kinetic** Energy (ii) **Static** Energy

b) **Chemical** Energy

c) **Therma**l Energy

d) **Magnetic** Energy

e) **Light** Energy

f) **Sound** Energy

g) **Electrical** Energy

h) **Atomic** Energy

5. What is **Energy Transformation**?

6. Give examples of the following Energy Transformations:

a) Mechanical Energy ⟶ Thermal Energy

b) Mechanical Energy ⟶ Sound Energy

c) Mechanical Energy ⟶ Thermal Energy

d) Mechanical Energy ⟶ Sound Energy + Thermal Energy

e) Thermal Energy ⟶ Mechanical Energy

f) Thermal Energy ⟶ Chemical Energy

g) Sound Energy ⟶ Mechanical Energy

h) Sound Energy ⟶ Electrical Energy

i) Magnetic Energy ⟶ Thermal Energy

j) Magnetic Energy ⟶ Mechanical Energy
k) Electrical Energy ⟶ Thermal Energy
l) Electrical Energy ⟶ Mechanical Energy
m) Electrical Energy ⟶ Light Energy
n) Chemical Energy ⟶ Thermal Energy
o) Atomic Energy ⟶ Light Energy+ Electrical Energy

7. What is **Energy Conservation**?
8. How can you conserve Energy?
9. Write down the differences between **renewable** and **non renewable** energy sources.
10. Write down a short note on the following ones:
a) Biogas
b) Air Flow
c) Ebb and Tidal Flow of water
d) Solar Energy
11. Write down the **merits** and **limitations** of **Renewable Energy**.
12. Write down the **merits** and **limitations** of **Non-Renewable Energy**
13. Which reasons are responsible for the **crisis of energy**?
14. What do you mean by **"Alternative Source Of Energy"?**
15. Write down the effects of Energy in our life.
16. What steps should be taken to prevent the misuse of energy?

Chapter-8: About Sound

1. What is **Sound**?
2. What do you mean by **"Origin Of Sound"**?
3. How does Sound circulate? Explain with diagram.
4. Write down the velocity of the sound according to three different mediums.
5. How can we or other animals hear sound? Explain.
6. What is **"Limit Of Audibility"**?
7. Write down limit of audibility of human being.
8. What is **"Noise"**?
9. What is **ultrasound**?
10. Define **pre-hearing** and **post-hearing** sound.
11. Write down the difference between **Well Audible Sound** and **Noise**.
12. What is **Sound Pollution**?
13. What harms does sound pollution cause?

14. Now-a-days sound becomes contaminated a lot. Write down the steps of preventing sound contamination.

15. If you and your friend under water in the pool are at same distance from the vibrating plate, who will hear the sound at first? Explain.

16. What is the relation between the length of the source and the sound's sharpness?

17. The velocity of the sound is 330 m/sec. The velocity of sound in sea water is 800 m/sec. The man standing on the sea shore and the diver are 3000 meters away from the place of the bomb explosion.

a) After how much time will the man standing on the shore hear the sound from the place of the bomb explosion?

b) Will the diver hear the sound of the explosion of the bomb at the same time as well? Give reason in favour of your answer.

Chapter-13: Environment and Pollution

1. What is **Environment**?

2. What is **Environmental Pollution**?

3. Why does Environmental pollution occur?

4. Write down the causes and effects of **soil pollution**.

5. Write down the causes and effects of **water pollution**.

6. Write down the causes and effects of **air pollution**.

7. Write down about the steps for the prevention of pollution and conservation of environment.

8. What is the elaboration of **CFC**?

9. How does soil pollution cause water pollution?

10. What will happen if we start taxation system on the use of carbon in our country? Give your logic.