

New Amazing Science
4
Worksheet Answer Key

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Worksheet #1

Q1. Complete the following statements.

1. All living things are called organisms.
2. Animals can walk, run or fly in search of food and shelter.
3. Plants prepare their own food in presence of sunlight.
4. All Living things need air to breathe.
5. Humans eat food obtained from both animals and plants.

Q2.

- i. What are the two major groups of animals ?

Based on the presence and absence of backbone, vertebrates and invertebrates are the two major groups of animals.

- ii. Draw two examples from each.

Invertebrates



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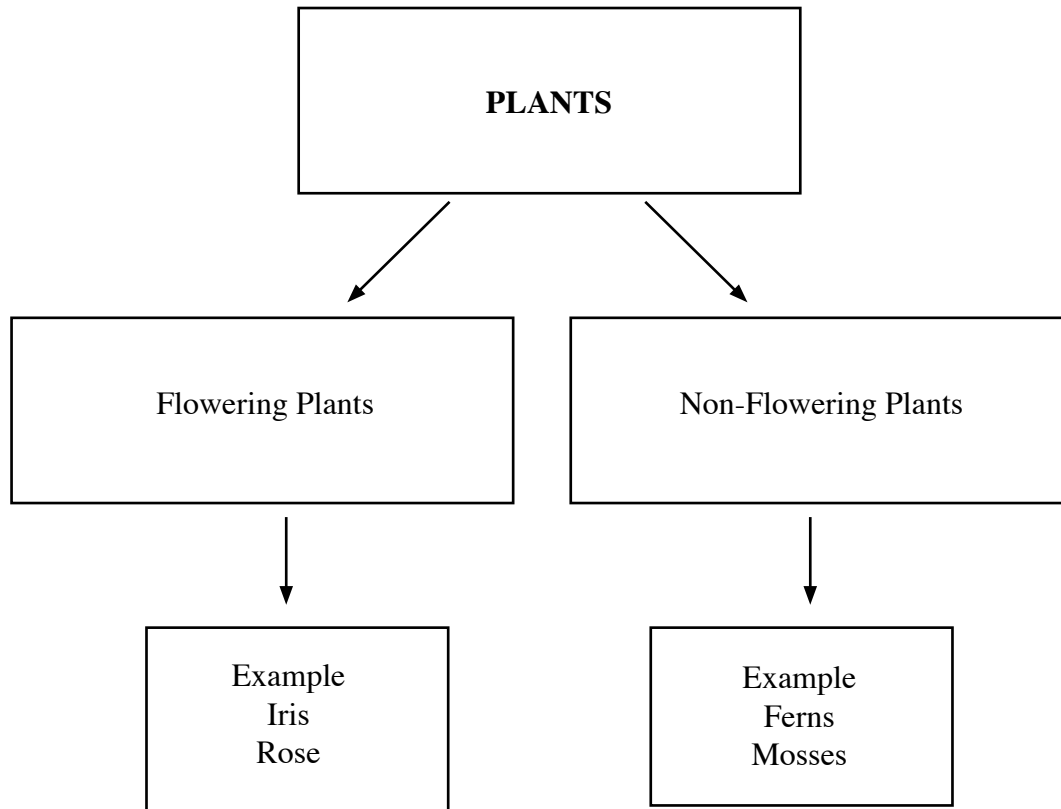
snail

Vertebrates



Worksheet #2

Q1. Plants are classified into two groups name them with two examples each.



Q2. Name the main groups included in Non-flowering plants.

Non-Flowering plants include spore producing plants and seed-producing plants.

Ferns and mosses are two types of non-flowering plants which do not produce seeds. They reproduce by making spores.

Coniferous trees grow cones instead of flowers to make seeds.

Q3. Write a short note on “Biodiversity”.

The presence of many different types of plants and animals in an area is known as biodiversity. This is important because different types of plants and animals help each other survive on the Earth.

Unit 1b

CHARACTERISTICS AND LIFE PROCESSES OF ORGANISMS

Worksheet #1

Q1. Define the following terms:

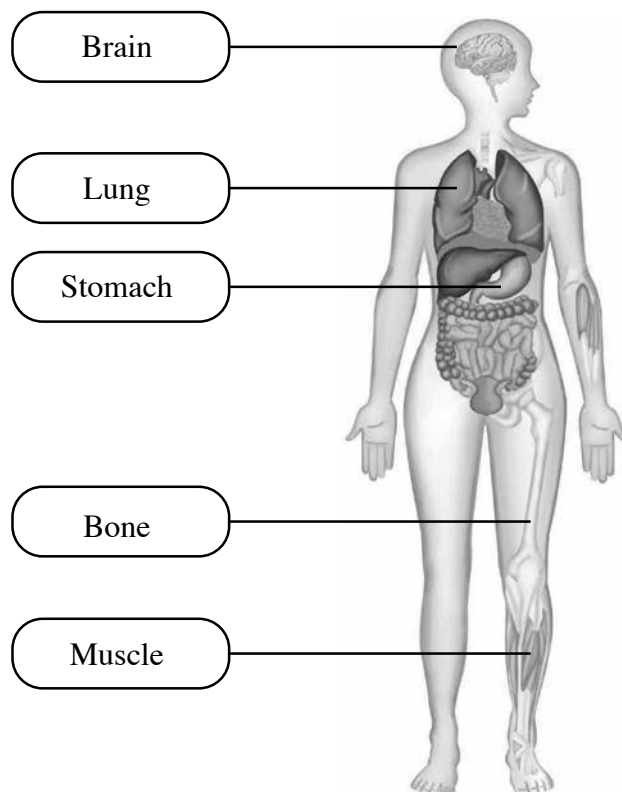
- **Muscles:** Muscles are made of tough, elastic tissues.

- **Incisor:** Incisors are wedge-shaped, with narrow, sharp edges. They are at the front of our mouths. Their function is to bite and cut our food.

- **Canine:** The four canine teeth are longer and more pointed. They are on either side, top, and bottom. Their function is to grip and tear tough foods

- **Molar and Premolar:** The Premolars and molars are our biggest teeth. Their wide, bumpy surfaces are good for crushing, grinding, and chewing our food. They break food into smaller pieces to make it easier to swallow.

Q2. Label the diagram below.



Worksheet #2

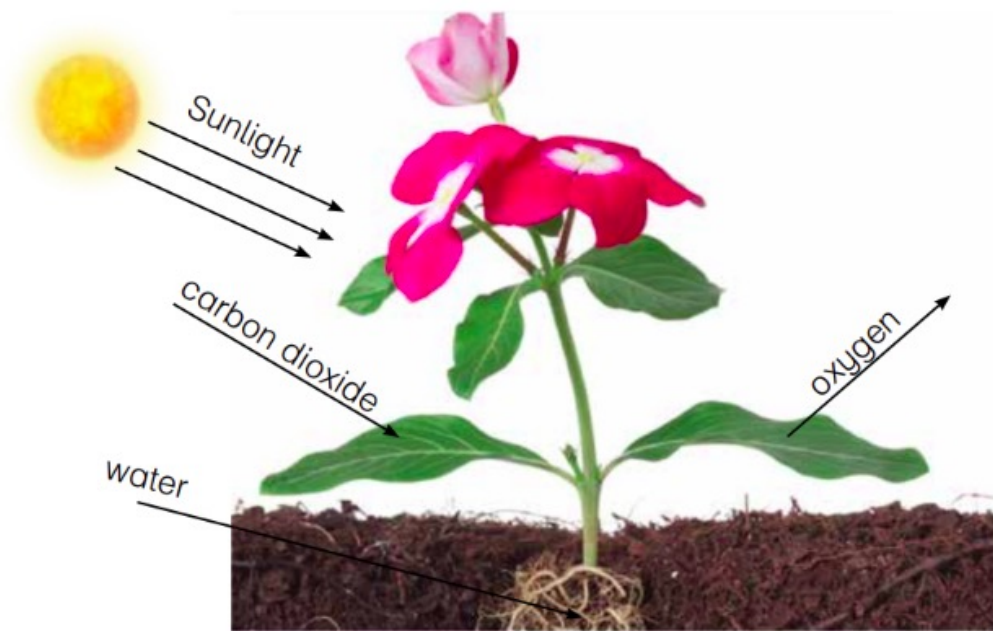
Q1. Tick whether True or False.

- i. Fish have gills for breathing.
(**TRUE** /FALSE)
- ii. When mammals breathe, in their lungs become smaller.
(TRUE /**FALSE**)
- iii. The skeleton is a framework of bones in our bodies which protects our organs.
(**TRUE** /FALSE)
- iv. Muscles can push.
(TRUE /**FALSE**)
- v. Teeth help in chewing food in the mouth.
(**TRUE** /FALSE)

Q2. Fill in the blanks.

- i. A plant's body is divided into two main parts.
- ii. The shoot is the main part of the plant that grows above the ground.
- iii. Without the supply of water and minerals through the stem, plants will die.
- iv. A strong force of wind can uproot the trees.
- v. A leaf has a flat surface called the leaf blade.

Q3 Draw a labelled diagram of a plant to show the exchange of gases taking place.



Worksheet #1

Q1. Define the following:

- Ecosystem: all the plants and living creatures in a particular area and their relation to their physical environment

-
- Abiotic: related to or involving non-living things

-
- Food chain : a series of living creatures in which each type of creature feeds on the one below it in the series.

-
- Biotic: Living things such as plants and animals in the ecosystem.

-
- Predator: An organism which obtain food by killing and consuming other organisms.
-

Q2. Give examples of two food chains.

1. Grass → Grasshopper → Frog → Snake → Eagle
2. Grass → Deer → Tiger

Q3. Write briefly about the two relationships in the ecosystem.

1. Competition: Plants and animals compete for limited resources like food, water, sunlight, and shelter within shared habitats. This competition for survival is fierce; organisms that fail to secure these essentials will perish, which ultimately drives changes and shapes the surrounding ecosystem.
2. Cooperation: Trees and shrubs provide homes and safety for various animals. Many birds weave nests in branches, while insects and small mammals like squirrels hide among leaves to avoid predators and bad weather.

Q4. Name two types of ecosystems on Earth with examples.

Two types of ecosystems are: Terrestrial ecosystems include forests, deserts and grasslands. Aquatic ecosystems include freshwater (rivers, lakes and ponds) and saltwater (seas and oceans).

Q5. What do you understand by the term three R's?

REDUCE use less of something REUSE use things more than once

RECYCLE make new things out of old things

Worksheet #1

Q1. Define the following terms:

- Contagious disease: a disease which can spread from a sick person to another person.

- Non-contagious disease: disease which cannot spread from a sick person to a healthy person.

- Balanced diet: food which provides all the nutrition required for a healthy life.

- Vitamins: natural substances found in food that is essential for humans and animals to grow and stay healthy.

- Energy: the ability to do work.

Q2. What are the important components of a balanced diet?

A balanced diet should include carbohydrates, proteins, vitamins and minerals, fibres.

Q3. How can communicable diseases be transmitted?

Communicable diseases can be transmitted through air, contaminated food and water, mosquitoes.

Q4. What actions in our daily life can promote good health?

- eating a balanced diet
- drinking clean water
- exercising regularly
- keeping yourself clean
- getting enough sleep

Worksheet #1

Q1. Name the processes involved in the conversion of water from ice to water vapour and vice versa.



Q2. Define the following:

- Mass: property of matter that measures the amount of matter an object contains.

- Volume: The amount of space a matter takes up is called volume.

- Conduction: the process by which heat or electricity passes through a material.

- Melting Point: The melting point of a substance is the temperature at which it changes its state from a solid to the liquid.

- Boiling Point: The boiling point of a substance is the temperature at which the substance changes from a liquid to the gas.

Q3. Give different uses of metals.

1. Metals are used to make tools because they are strong and easy to shape
2. Metals like gold, silver, and platinum are often used to make jewellery.
3. Some metals are used to make items like coins.
4. Mercury is a metal, but it is in liquid form! Mercury is used in thermometers, barometers, fluorescent lamps, and other devices.

Unit 5

FORMS OF ENERGY AND ENERGY TRANSFERS

Worksheet #1

Q1. Fill in the blanks.

- i. Energy is invisible but we can see its effects.
- ii. Energy is the ability to do work.
- iii. No life would exist if energy was not there.
- iv. In an engine, fuel is converted to heat.
- v. Energy from running water is used to generate electricity at hydroelectric power station.

Q2. Name various forms of energy.

light energy sound energy heat energy electrical energy

Q3. What kind of energy travels fastest in the world?

LIGHT

Q4. What happens when light falls on an object?

When light falls on an object, it interacts with its material and is generally reflected, absorbed, or transmitted.

Q5. What is an echo?

An echo is the repetition of sound caused by the reflection of sound waves.

Q6. What are the uses of electrical energy in our daily life's?

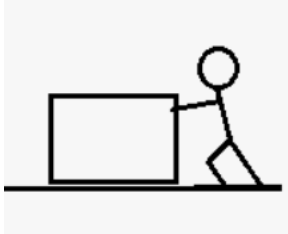
Electrical energy is essential for lighting homes and streets, running household appliances like refrigerators and washing machines, operating communication devices such as smartphones and computers.

Unit 6

FORCES AND MOTION

Worksheet #1

Q1. Illustrate to show how a force works.



pushing force makes an object move away from you.



A force applied on a moving ball makes it stop.

Q2. Name six simple machines.

lever pulley gears inclined plane wedge wheel and axle

Q3. What is gravity?

Gravity is a force that pulls things towards each other. The larger an object is, the stronger the force of gravity it has.

Q4. How does friction work? Explain using examples.

It is a force that occurs whenever two objects or surfaces meet each other. Friction always acts in the direction opposite to the direction of movement of an object.

Worksheet #1

Q1.Fill in the blanks.

- i. The main source of life on Earth is water.
- ii. Oxygen makes up the fifth of Earth's atmosphere.
- iii. Mass of snow on mountains is known as glaciers.
- iv. Glass is made up of sand and limestone.
- v. Air, water and soil are all natural materials.

Q2.How are natural resources classified? Explain using examples.

Natural resources can be classified as living or non-living. Living natural resources include plants and animals. Non-living natural resources include sunlight, air, water, fossil fuels.

Q3.What are fuels? Name some examples.

A fuel is something that gives off heat when it burns. Wood, coal, and oil, all are fuels. Coal, gas, and petroleum are called fossil fuels.

Q4.What are the two types of energy sources? Give two examples of each.

- a. Renewable resources: Renewable resources are the ones that can be replaced. Some of these are sunlight, wind, running water, plants, and animals. These are continuously available, and their quantity is not affected by human use.
- b. Non-renewable resources: Non-renewable resources will run out as they cannot be replaced naturally. These are used up faster than they can be made by nature. They cannot be produced, grown, or generated. Fuels like coal, oil, and natural gas are examples of such resources.

Q5.Why is conservation of resources important in your opinion?

Conservation of resources is important because we need these resources to survive, and it keeps our planet healthy for future generations. Conserving also prevents pollution and protects animals that depend on nature for their homes.

Unit 8

EARTH'S WEATHER AND CLIMATES

Worksheet #1

Q1. Define the following:

- Weather: day-to-day state of the atmosphere is weather.
- Climate: The average weather conditions of a place is called climate

Q2. Write down the factors that affect the weather of an area?

air moisture clouds precipitation air temperature air pressure wind

Q3. What is precipitation?

Precipitation is any liquid or frozen water that is formed by condensation of atmospheric water vapour and falls to the Earth.

Q4. Name the three zones of the Earth based on the variation of the climate.

Equatorial Zone: In the equatorial zone, rainforests are present and the climate here is found to be very hot and wet. There are frequent rainfalls, due to which, the annual rainfall is high.

Polar Zone The Polar Zone encompasses the areas surrounding the North and South Poles.

This zone has the coldest climate since the sun's rays fall more slantly than vertically.

Temperate The Temperate Zone is the area between the Tropical and Polar Zones. Because the sun's rays fall slantly, the climate in this zone is warm.

Q5. What is the difference between snow, rain, sleet and hail?

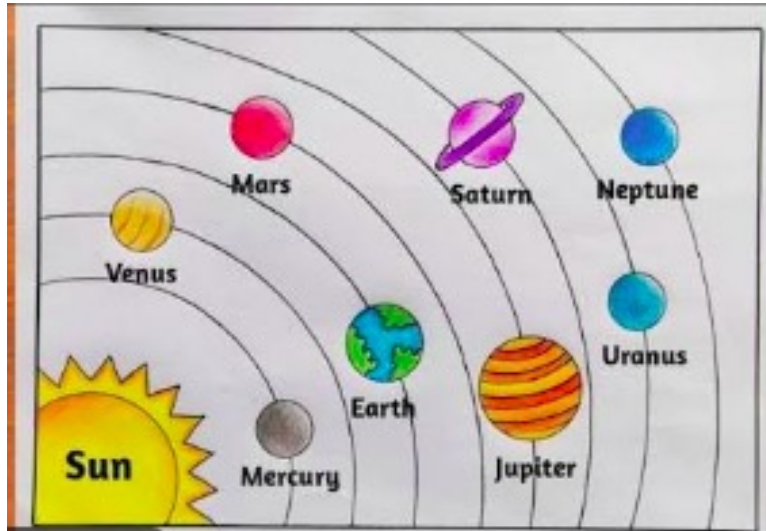
Rain	Liquid water drops
Snow	Soft, white, geometric flakes
Sleet	Tiny ice pellets bounce and make noise
Hail	Layered balls of solid ice

Unit 9

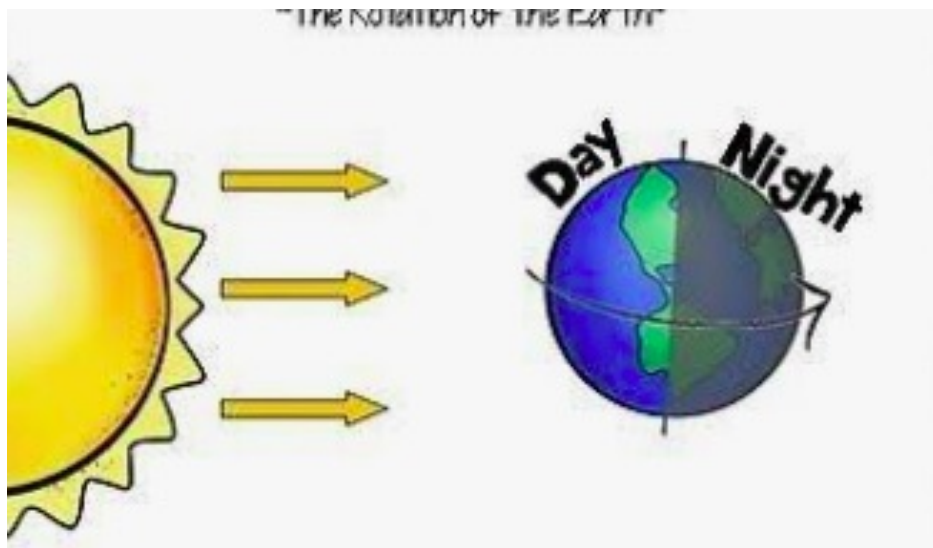
EARTH IN THE SOLAR SYSTEM

Worksheet #1

Q1. Draw a diagram to show the planets and the sun in our solar system.



Q2. Draw a diagram to show what causes day and night on Earth.



Worksheet #1

Q1. How is technology important in our daily lives? Explain.

Technology is the application of science to invent useful tools, which make our lives easier. It helps us get things done quicker, order groceries online, and pay bills. Social media, messaging apps, and video calls let connect with family and friends. GPS apps help us avoid traffic, find the fastest routes, and explore new areas safely.

Q2. What precautionary measures should be taken if one is sick?

Avoid work, school, and public spaces. If you need to be around others in your home, wear a well-fitting mask. Sneeze or cough into a tissue or your elbow. Throw away used tissues immediately. Wash your hands with soap and water.

Q3. How is a mobile useful in our daily lives?

Mobile phones are one of the most commonly used technological advances of the day. They make keeping in touch and getting information easier. They are also very helpful to keep a record of events and things as they happen.

Q4. Write down about the importance of a First Aid Box and what must it comprises of?

A First Aid Box is a small container holding basic medical supplies. It is important because it allows you to give quick, immediate care during unexpected accidents or emergencies, preventing minor injuries from getting worse and potentially saving lives before professional help arrives.

A first aid box must have the following:

- Bandages and Wound Care
- Antiseptic wipes
- Antibiotic ointment
- Pain relievers
- Thermometer