

OXFORD
UNIVERSITY PRESS

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Science

Scientific Keywords Worksheet



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Unit 1

PLANT SYSTEMS

Learn the definitions of the following keywords.

Words	Definition
Diffusion	The movement of particles from an area of higher concentration to lower concentration.
Epidermis	The outer layer of the skin.
Xylem	Vessels through which water and minerals move from roots, through stem, into the leaves.
Phloem	Vessels which transport sugars from leaves to other parts of the plant.
Photosynthesis	The process by which green plants turn carbon dioxide and water into food using energy from the sun.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. _____ is the movement of particles from a region of high concentration to a region of low concentration.
2. The _____ is the outer layer of the plant that protects it.
3. Water and minerals move upward in plants through _____.
4. _____ carries sugars from leaves to other parts of the plant.
5. Plants make their food by the process of _____.

Unit 2

HUMAN RESPIRATORY SYSTEM

Learn the definitions of the following keywords.

Words	Definition
Breathing	The action of taking air into the lungs and sending it out again.
Respiration	The process by which food molecules are broken (oxidized) to release energy.
Pharynx	The soft area at the top of the throat where the passages to the nose and mouth connect with the throat.
Larynx	The area at the top of the throat that contains the vocal cords.
Alveoli	One of the many small spaces in each lung where gases can pass in or out of blood.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. _____ is the action of taking air into the lungs and releasing it.
2. _____ is the process in which food is broken down to release energy.
3. The _____ connects the nose and mouth to the throat.
4. The vocal cords are present in the _____.
5. Gas exchange takes place in tiny air sacs called _____.

Unit 3

CIRCULATORY SYSTEM

Learn the definitions of the following keywords.

Words	Definition
Cardiac muscle	Muscle tissue found in the heart that helps to pump blood.
Atria	Upper chambers of the heart.
Ventricles	Lower chambers of the heart.
Haemoglobin	Red substance in the blood that carries oxygen.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. The heart is made up of a special tissue called _____.
2. The upper chambers of the heart are known as _____.
3. The lower chambers of the heart are called _____.
4. _____ is the red substance in blood that carries oxygen.

Unit 4

IMMUNITY AND DISEASES

Learn the definitions of the following keywords.

Words	Definition
Bacteria	The simplest and smallest forms of life, which are found everywhere in large numbers and are often a cause of disease.
Virus	A microorganism that lives in cells of living things and usually causes diseases.
Fungi	Spore producing organisms such as mushrooms, yeast etc.
Immune	Protected against a particular disease.
Immunity	The body's ability to avoid or not be affected by infection and disease.
Antibody	A substance that the body produces in the blood to fight disease, or as a reaction when certain substances are put into the body.
Innate Immunity	The type of immunity present in a person from birth, including the physical barriers and certain white blood cells.
Passive Immunity	The type of immunity provided by antibodies created outside of the person's own body.
Adaptive Immunity	The type of immunity developed and gained over time by a body and not present from birth.
Vaccine	The injection of dead or weakened viruses to help the body build immunity against harmful viruses.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

- _____ are tiny living organisms that can cause diseases.
- A _____ can live only inside the cells of living organisms.
- Mushrooms and yeast are examples of _____.
- When a person is protected against a disease, they are said to be _____.
- The body's ability to fight disease is called _____.
- Substances made by the body to fight infections are called _____.
- _____ immunity is present from birth.
- Immunity received from another source is called _____ immunity.
- _____ immunity develops over time after exposure to diseases.
- A _____ helps the body build protection against diseases.

Unit 5

STRUCTURE OF AN ATOM

Learn the definitions of the following keywords.

Words	Definition
Atom	Tiny particles which are building blocks of all matter. An atom has electrons, protons and neutrons.
Symbol	A letter that denotes a specific element, or property.
Atomic number	Number of protons in an atom; symbol is Z.
Mass number	The total number of protons and neutrons in an atom; symbol is A.
Element	A substance made up of only one type of atom.
Periodic table	An arrangement of all known elements in order of their atomic numbers.
Groups	The columns in a periodic table, arranged such that the metals are on the left and non-metals on the right.
Periods	The rows in a periodic table, each row containing elements with the same number of electron shells.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. All matter is made up of tiny particles called _____.
2. Each element is represented by a chemical _____.
3. The number of protons in an atom is called the _____.
4. The total number of protons and neutrons is the _____.
5. A substance made of only one type of atom is an _____.
6. Elements are arranged in the _____ table.
7. Vertical columns in the periodic table are called _____.
8. Horizontal rows in the periodic table are known as _____.

Unit 6

PHYSICAL AND CHEMICAL CHANGES

Learn the definitions of the following keywords.

Words	Definition
Reversible reactions	Some reactions which can be reversed.
Chemical change	An irreversible change that forms a new product with different properties.
Physical change	A reversible change in which no new substances are formed.
Rusting	A reaction of iron with oxygen present in the air.
Oxidation	A process in which oxygen reacts with another substance.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. Changes that can be undone are called _____ reactions.
2. A _____ results in the formation of a new substance.
3. A _____ is a change in shape or state only.
4. _____ is the reaction of iron with oxygen.
5. When oxygen reacts with a substance, the process is called _____.

Unit 7

CHEMICAL BONDS

Learn the definitions of the following keywords.

Words	Definition
Valency	Number of electrons an element atom can lose, gain or share to form a compound.
Chemical bond	The force of attraction which holds the atoms together in a molecule or compound.
Ionic bond	Chemical bond formed using electrical attraction between positive and negative ions.
Covalent bond	Chemical bond formed through sharing of a pair of electrons.
Formula	A representation of a chemical substance, which tells the number and kinds of atoms in each molecule of the substance.
Ion	An ion is an atom or molecule that has a positive or negative charge because it has lost or gained electrons.
Cation	An ion with a positive charge.
Anion	An ion with a negative charge.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. The combining power of an element is called its _____.
2. A _____ holds atoms together in a compound.
3. A bond formed due to electrical attraction is an _____ bond.
4. Sharing of electrons forms a _____ bond.
5. A _____ shows the kinds and numbers of atoms in a substance.
6. An atom with a charge is called an _____.
7. A positively charged ion is a _____.
8. A negatively charged ion is an _____.

Unit 8

SOLUTIONS

Learn the definitions of the following keywords.

Words	Definition
Dilute	A solution in which a small amount of solute is dissolved in the solvent.
Concentrated	A solution in which large amount of solute is dissolved in the solvent.
Solubility	A measure of how much solute can be dissolved in 100 grams of a solvent, at a given temperature, to make a saturated solution.
Saturated	A solution that can dissolve no more solute at a fixed temperature.
Unsaturated	A solution which can dissolve more of the solute at a given temperature.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. A _____ solution has a small amount of solute.
2. A _____ solution has a large amount of solute.
3. _____ tells how much solute can dissolve in a solvent.
4. A solution that cannot dissolve more solute is _____.
5. A solution that can dissolve more solute is _____.

Unit 9

FORCE AND MOTION

Learn the definitions of the following keywords.

Words	Definition
Weight	The force of Earth's gravity, measured in Newtons.
Balanced Forces	When two opposing forces are acting equally on an object resulting in no change, such as weight and upthrust act on a floating boat.
Elasticity	Ability of a material to go back to its original length, when forces acting on it are removed. Such as stretched rubber band.
Speed	Measure of how fast something is moving, calculated as distance moved per second or per hour.
Acceleration	The change in speed per second.
Velocity	Speed in a specific direction.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. The pull of Earth's gravity on an object is called _____.
2. When forces cancel each other, they are _____ forces.
3. The ability to return to original shape is _____.
4. _____ is the distance travelled per unit time.
5. Change in speed per second is called _____.
6. Speed in a particular direction is known as _____.

Unit 10

WAVES AND ENERGY

Learn the definitions of the following keywords.

Words	Definition
Oscillation	A regular back and forth movement with lower frequency.
Vibration	The rapid back-and-forth movement with higher frequency.
Transverse wave	The particles of a medium vibrate perpendicular to the direction of wave propagation.
Longitudinal wave	The particles of a medium vibrate parallel to the direction of wave propagation.
Period	The time taken for one complete oscillation.
Amplitude	The maximum displacement from the mean position during oscillation.
Frequency	The rate at which a sound or electromagnetic wave vibrates
Pitch	How shrill or grave a sound is, especially a musical note.
Loudness	How loud sound is, the loudness of sounds is measured in decibels.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. One complete back and forth movement is an _____.
2. Fast back and forth motion is called _____.
3. In a _____ wave, particles move perpendicular to wave direction.
4. In a _____ wave, particles move parallel to wave direction.
5. The time taken for one oscillation is the _____.
6. The maximum displacement from rest is the _____.
7. The number of vibrations per second is _____.
8. _____ describes how high or low a sound is.
9. Sound strength is called _____.

Unit 11

HEAT AND TEMPERATURE

Learn the definitions of the following keywords.

Words	Definition
Conductor	Materials that allow heat to travel easily through them e.g metals.
Conduction	Heat transfer through solids by the vibration of molecules.
Convection	Heat transfers from one part of a fluid (a liquid or a gas) to another by the movement of the fluid itself.
Radiation	Heat transfer through space in the form of waves.
Temperature	The degree of hotness or coldness of a body.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. Metals are good _____ of heat.
2. Heat transfer through solids is called _____.
3. Heat transfer in liquids and gases is _____.
4. Heat transfer through space is called _____.
5. The measure of hotness or coldness is _____.

Unit 12

EARTH AND SPACE

Learn the definitions of the following keywords.

Words	Definition
Gravity	The force by which a planet or other body draws objects towards its centre.
Gravitational Field	The area in which gravity has an effect.
Axis	An imaginary line passing through the poles of the Earth, along which it rotates.
Revolution	Movement of Earth in its orbit around the sun.

Memorize the scientific vocabulary given in the table above and complete the following sentences by filling in the blanks with the correct answers.

1. _____ is the force that pulls objects toward Earth.
2. The region where gravity acts is called a _____.
3. Earth rotates around an imaginary line called the _____.
4. The movement of Earth around the Sun is called _____.