

DAV PUBLIC SCHOOL CHAMBA(H.P.)
LEARNING OUTCOMES
CLASS: XII
PHYSICS

Chapter-Dual nature of matter.

Students will be able to understand-

- 1) Concept of work function, threshold frequency, laws of photoelectric emission.
- 2) Different graphs which verify the laws of photoelectric emission.
- 3) Hertz lenard experiment.

Chapter -optics

Students will be able to understand-

- 1) Refraction of light, total internal reflection and its applications.
- 2) Refraction of light through spherical surfaces, thin lens formula.
- 3) Lens maker formula.
- 4) Power of a lens, combination of thin lenses in contact, refraction of light through a glass prism.
- 5) Microscopes and astronomical telescopes and their magnifying power.
- 6) Concept of Huygen's principle, reflection and refraction of a plane wave at a plane surface using wavefronts.
- 7) Concept of interference of light.
- 8) Young's single slit experiment and width of Central Maxima.

Chapter-atom and nuclei

Students will be able to understand-

- 1) Alpha particle scattering experiment.
- 2) Rutherford model of atom, Bohr model, energy levels and hydrogen spectrum.
- 3) Composition and size of the nucleus.
- 4) Mass defect, Einstein mass energy relation.
- 5) Concept of nuclear fission and nuclear fusion.

Chapter-semiconductors

Students will be able to understand-

- 1) Energy bands in conductors, semiconductors and insulators.
- 2) I-V characteristics of diode in forward and reverse biasing.
- 3) Rectifiers and its working.
- 4) Working of photodiode, LED's, solar cell.

MATHS

1) Applications of integrals- At the end of the topic the students will be able to understand

- a) Equations of different curves
- b) The graph of the equation of different curves
- c) To find the area under the curve by using integrals
- d) To find the area between two curves

Differential equations- at the end of the topic the students will be able to understand

- a) Differential equations
- b) Order and degree of a differential equation
- c) To check whether a given equation is a solution of given differential equation or not
- d) To find the solution of a differential equation by variable separation
- e) To find the solution of a homogeneous differential equation
- f) To find the integrating factor of a linear differential equation
- g) To find the solution of a given linear differential equation

h) To find the particular solution of a given differential equation

Vectors-At the end of the topic the students will able to understand about

- a) Vectors and scalar quantities
- b) Types of vectors
- c) To find a vector when its initial and terminal point is given
- d) Direction cosines and direction ratios of a vector
- e) Scalar product of two vectors
- f) Properties of scalar product of two vectors and their applications
- g) Vector product of two vectors
- h) Properties of vector products and their applications

Three dimensional geometry- At the end of the topic the students will able to understand

- a) Relationship between direction cosines of two lines when lines are parallel or perpendicular
- b) Equation of a line in vector form and cartesian form
- c) Angle between two lines and shortest distance between two skew lines
- d) Different types of equation of plane in vector forms and cartesian forms
- e) Distance of a plane from a given point f) applications of formulas to solve the problems

Probability- at the end of the topic the students will able to understand

- a) Conditional probability of an event
- b) Independent events and multiplication theorem of probability
- c) To solve the problem of a probability by using baye,s theorem
- d) Random variable and probability distribution of an event

Relation and functions-at the end of the topic the students will able to understand

- a) Relations and functions
- b) Types of relations as reflexive relation ,symmetric relation, transitive relation and equivalence relation
- c) Types of functions as one one function and onto function
- d) Composition of two functions
- e) Invertible functions

ENGLISH

FLAMINGO

Learning outcomes

Indigo

1. Reading with proper gesture pronunciation and tone.
2. Recognize the social political and cultural background of text
3. Deduce the meaning of graphic text
4. Evaluating ideas and information
5. Skim the reading text to identify main ideas of reading titles introduction and topic sentence.
6. Responding critically to the aesthetic cultural and emotional values in the text.

Poetry

A thing of beauty

Poet—John Keats

1. Reading poetry with appreciation of language.
2. Respond critically to aesthetic cultural and emotional values in poem
3. able to articulate their own interpretation with an awareness and curiosity for other perspective.
4. Asking questions and making predictions.
5. Able to recite fluently view the given passage for information and enjoyment.

Poem—Aunt Jennifer,sTigers

Poet—Adrienne Rich

1. Reciting poem with gestures.

2. Appreciating little piece of art.
3. Identifying with rhetorical devices figure of speech .
4. able to understand the social political and cultural background of the poem.
5. Evaluate ideas and information.

Book Vistas--supplementary reader.

Chapter 6

On the face of it

- 1 become accomplished and active leader who appreciate ambiguity and complexity.
2. Ask questions and making predictions.
- 3.able to articulate their own interpretation with an awareness and curiosity of others perspective.
4. skim the reading text to identify main ideas by reading titles introductions and the text
- 5.insert meaning of ideas presented and of difficult and familiar vocabulary from the contest by using word attack skills.

Chapter 7

Evans tries an o level

1. Recognizing the social political cultural background of the text.
2. Skim the reading text to identify main ideas of reading.
3. To able to read fluently and view the given text for the information and enjoyment.
4. Become accomplished and active readers who appreciate ambiguity and complexity. Infamy meaning of ideas presented and of difficult unfamiliar vocabulary from the contest.

Chapter-8

Memories of childhood

1. Reading fluently and view the given text for information and enjoyment.
2. Respond critically to the static cultural and emotional values in the text
3. Infamy meaning of the ideas presented and of difficult and familiar vocabulary from the context.
4. Summarise mean and supporting ideas in order to form notes points and make connection between them.

PHYSICAL EDUCATION

Learning outcomes

- . Students have complete knowledge of planning in sports.
- . Students have knowledge about the how tournaments are conducted
- . Have sufficient knowledge from diet
- . Sufficient knowledge of how diseases is can be overcome through yoga
- . Students know about disability and disorder
- . Knowledge about motor development and postural deformities.
- . Students have knowledge about the motor fitness, Harvard step test and rikli and Jones test

Term 2 learning outcome

- Chapter 7 physiology and injuries in sports
- Chapter 8 Biomechanics and sports
- Chapter 9 psychology and sports

Chapter 10 Training in Sports

Learning outcomes

- : Students have complete knowledge of physiology and injuries in sports
- : students have to know about first aid and how treatment is done
- : Students learned about biomechanics and sports by demonstration
- : Students got to know psychology and sports deeply and also motivation and its technique
- : Students learned about Training in Sports and they were also given practical training
- : Through this chapter students also developed their physical component.

CHEMISTRY

Learning outcomes

Unit test 3

Chapter : d and f block elements

after the completion of chapter students will be able to understand

- 1) General introduction, electronic configuration, occurrence and characteristics of transition metals,
- 2) General trends in properties of the first row transition metals – metallic character, ionization
- 3) Enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation.
- 4) Lanthanoids - Electronic configuration, oxidation states, lanthanide contraction and its consequences

Chapter -alcohol, phenol and ether

: After the completion of chapter students will be able to understand

- 1) Alcohol-Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only)
- 2) Identification of primary, secondary and tertiary alcohols, mechanism of dehydration.
- 3) Phenols: Nomenclature, methods of preparation, physical and chemical properties
- 4) Acidic nature of phenol, electrophilic substitution reactions, uses of phenols.
- 5) Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses

Chapter- aldehyde ketones and carboxylic acids

After the completion of chapter students will be able to understand

- 1) Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties,
- 2) Mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.
- 3) Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical, properties; uses

Unit test 4

Chapter ---p block elements

After the completion of chapter students will be able to understand

- 1) Group -15 Elements: General introduction, electronic configuration, occurrence, oxidation states,
- 2) Trends in physical and chemical properties; Nitrogen preparation properties and uses; compounds of Nitrogen:
- 3) Preparation and properties of Ammonia and Nitric Acid.
- 4) Group 16 Elements: General introduction, electronic configuration, oxidation states, occurrence,
- 5) Trends in physical and chemical properties, dioxygen: preparation, properties and uses,

- 6) Classification of Oxides, Ozone, Sulphur -allotropic forms; compounds of Sulphur: preparation properties and uses
of Sulphur-dioxide,
- 7) Sulphuric Acid:properties and uses; Oxoacids of Sulphur (Structures only).
- 8) Group 17 Elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds of halogens, Preparation, properties and uses of Chlorine and Hydrochloric acid, interhalogen compounds, Oxoacids of halogens (structures only).
- 9) Group 18 Elements: General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses.

Chapter -organic compounds containing nitrogen

After completion of chapter students will be able to understand

- 1) Amines: Nomenclature, classification, structure, methods of preparation,
- 2) physical and chemical properties, uses, identification of primary, secondary and tertiary amines

Chapter- biomolecules

After the completion of chapter students will be able to understand

- 1) Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration
- 2) Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins,
- 3) Structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins
- 4) Nucleic acids--DNA,RNA

BIOLOGY

POST TERM

UNIT IV: BIOTECHNOLOGY

Chapter 1 Biotechnology : Principles and processes

- Student will able to understand about genetic engineering, tools of recombinant DNA technology
- Student will understand about cutting of DNA at specific locations, PCR, amplification of gene.
- Student will know about insertion of recombinant DNA into the host cell and foreign gene products.

Chapter 2 Biotechnology and its application

- Student will able to understand application of biotechnology in agriculture and medicine.
- Student will know about transgenic animals
- Student will understand about the ethical issues and biopiracy.

UNIT V: ECOLOGY

Chapter – 1 Organisms and populations

- Student will able to learn about the biotic and abiotic factors of environment.
- Student will understand about population, population growth and population interaction.

Chapter -2 Biodiversity and conservation

- Student will able to know about diversity of living organisms, causes of biodiversity loss.
- Student will be able to understand about that why it is important to conserve the biodiversity and what are the ways to conserve the biodiversity.

