



YADAVINDRA PUBLIC SCHOOL, PATIALA
SYLLABUS FOR ENTRANCE EXAMINATION 2024-25
CLASS-IX
ENGLISH (1 Hr)

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| 1. | Composition (300 words). | - | (20) |
| 2. | Reported Speech | - | (10) |
| 3. | Active Passive | - | (10) |
| 4. | Agreement of the verb with the subject | - | (5) |
| 5. | Tenses | - | (5) |

MATHEMATICS (1 Hr)

6. **(a) ARITHMETIC:**
HCF and LCM of fractions
Square and Square Roots
Profit, Loss and Discount
Simple Interest
Time & Distance **(b)**
- ALGEBRA:**
Expansions
Factorization
Simplification of Linear equations in one or two variables.
- (c) GEOMETRY:**
Finding out the angles of Triangles and Quadrilaterals, using different properties.
- (d) MENSURATION:**
Circumference and Area of a circle
Quadrilaterals

SCIENCE (1 Hr)

PHYSICS

- 1. ENERGY** (Concept of Work and its unit, Kinetic Energy, Potential Energy (Basic Concept), Gravitational Potential Energy, Energy transformation in common daily life situations, Difference between energy and power)
- 2. LIGHT ENERGY** (Refraction: Definition and its examples of Refraction. (examples such as, bending of pencil when placed in water, raising of coin when placed in water.), Curved Mirrors: Convex and Concave: Uses and terms related to Curved mirrors such as–focus, principal axis, centre of curvature, radius of curvature etc. Dispersion of white light into constituent colours.)

3. **HEAT**(Difference between Boiling and Evaporation, Thermal Expansion: Linear Expansion, Cubical Expansion, Superficial Expansion, Compare expansion in Solids, Liquids and Gases -with examples and real world applications)

CHEMISTRY

1. **Matter** - Definition, Postulates of kinetic theory of matter; Reasons of change of one state to another on the basis of inter particle space, inter particle attraction and collision; Definition and explanation of law of conservation of mass, using examples
2. **Atomic Structure**- Atomic Structure and chemical Bonding-Discovery of protons, neutrons and nucleus (historic perspective), John Dalton's atomic theory. Atom--its structure, Atomic number (Z), Mass number (A), Distribution of electrons in the orbits, Valence electrons, Reason for chemical activity of an atom, isotopes.
3. **Language of chemistry**- Symbols of elements, concept of valency, Formulae of compounds, Radicals, Writing Chemical Formula, Naming certain compounds, Chemical equations, Law of conservation of mass, Balancing simple equations, Information gathered from chemical equation, Limitations of chemical equations, Role of catalysts in a chemical reaction.

BIOLOGY

1. **ENDOCRINE SYSTEM** (Endocrine glands; Thyroid, Adrenal, Pancreas, Pituitary, (Location, secretion, function), Adolescence and stress management
2. **REPRODUCTION IN PLANTS** (Flower- structure and function, Pollination- Types and agents with examples, Fertilisation.)
3. **ECOSYSTEM** (Biotic and abiotic factors, Biotic components, Food chain, Food web, Pyramid of numbers, Symbiosis, predation, parasitism, Forest Ecosystem-flora and fauna.)
