



New Era High School and Senior Secondary

FOR THE BETTERMENT OF THE WORLD

SYLLABUS FOR CLASS 9 ENTRANCE TEST

ENGLISH

1. Two unseen comprehension passages.
2. One composition on any given topic.
3. Grammar - parts of speech, tenses, reported speech, articles, agreement of the verb with the subject, forming meaningful sentences from jumbled words.

MATHEMATICS

1. Rational Numbers
2. Linear equation in one variable
3. Polygons and Quadrilaterals
4. Square and Square Roots
5. Percentage
6. Algebraic Expressions and Identities
7. Surface area and volume
8. Exponents
9. Graphical Representation of Data
10. Construction of Triangle and Quadrilaterals
11. Compound Interest
12. Direct and Inverse Relation
13. Factorisation
14. Interpretation of Graph
15. Profit, Loss and Discount

SCIENCE

TEXT BOOK: SCIENCE for Std VIII By N.C.E.R.T.

PHYSICS

1. Force & pressure : Force- A push or a Pull, forces due to interaction, force can change the state of motion; shape of an object, contact forces, non- contact forces, Pressure, pressure exerted by liquids and gases, atmospheric pressure.
2. Friction: Force of friction, factors affecting friction, friction a necessary evil, increasing & reducing friction, wheels reduce friction, fluid friction.
3. Sound: Sound produced by vibrating body ; by humans, sound needs a medium for propagation, we hear sound through our ears, loudness & pitch, audible & inaudible sounds,

noise & music, noise pollution.

4. Electric current & circuit: Conductors, insulators, chemical effects of electric current, electroplating.

5. Natural phenomena: Lightning, charging by rubbing, transfer of charges, lightning & safety, earthquakes.

6. Light: Laws of reflection, multiple images, sunlight, human eye & its care, Braille system.

CHEMISTRY

1. SYNTHETIC FIBRES AND PLASTICS

- a. What are Synthetic Fibers?
- b. Types of Synthetic Fibers.
- c. Characteristics of Synthetic Fibers.
- d. Plastics
- e. Plastics as Materials of Choice
- f. Plastics and the Environment

2. MATERIALS: METALS AND NON-METALS

- a. Physical & Chemical Properties of Metals and Non-Metals
- b. Chemical reactions with water, bases & acids
- c. Displacement Reaction
- d. Uses of Metals and Non-Metals

3. COAL AND PETROLEUM

- a. Coal, Story of Coal, Coke, Coal Tar, Coal Gas
- b. Petroleum
- c. Natural Gas
- d. Some Natural Resources are Limited

4. COMBUSTION AND FLAME

- a. What is Combustion?
- b. Types of Combustion
- c. How do we Control Fire?
- d. Flame, Structure of a Flame
- e. What is a Fuel?
- g. Fuel Efficiency

5. POLLUTION OF AIR AND WATER

- a. Air Pollution, How does Air Get Polluted?, Case Study- The Taj Mahal
- b. Green-house Effect
- c. Water Pollution , How does Water Get Polluted?
- d. What is Potable Water?
- e. How is Water Purified?

BIOLOGY

1. Crop production and Management

Agricultural practices, Basic Practices, Preparation of soil, Sowing, Manure and fertilizer, Irrigation, Protection from weeds, Harvesting, Storage.

2. Microorganisms: Friends and Foe

Microorganisms, Where do microorganisms live?, Microorganisms and us, Harmful microorganisms, Food preservation, Nitrogen fixation.

3. Cell - Structure and Function

Discovery of the cell, The Cell, Organisms show Variety in cell number, shapes and size, Cell structure and Function, Parts of the Cell Comparison of Plant and Animal Cells.

4. Reproduction in Animals Modes of Reproduction, Sexual Reproduction, Asexual Reproduction.

5. Reaching the Age of Adolescence Adolescence and Puberty, Changes at Puberty, Secondary Sexual characters, Role of Hormones in initiating Reproductive Function, reproductive phase of life in Humans, How is sex determined, Hormones other than Sex Hormones, Role of Hormones in the Life Cycle of Insects and Frogs, Reproductive Health.

