PINEWOODS INTERNATIONAL HIGH SCHOOL & JUNIOR COLLEGE, PANCHGANI

Syllabus For Entrance Exams

Standard IX

ENGLISH

1] Two unseen comprehension passages.

2] One composition on any given topic.

3] Grammar - parts of speech, tenses, active and passive voice, 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

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

SYNTHETIC FIBRES AND PLASTICS

a) What are Synthetic Fibres? b) Types of Synthetic Fibres

c) Characteristics of Synthetic Fibres d) Plastics

e) Plastics as Materials of Choice f. Plastics and the Environment

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

COAL AND PETROLEUM

a) Coal, Story of Coal, Coke, Coal Tar, Coal Gas

b) Petroleum c. Natural Gas d. Some Natural Resources are Limited

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

POLLUTUON 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

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