

## V. Environmental Studies

### **Science:**

#### **CONTENT (Marks: 12)**

##### **1. Living World:**

Non Living and living Organisms - Plants and Animals- Classification of plants- Plant - Parts and Functions - Flower to seed- Seed Germination- Diversity in Plants- Life cycle of a plant- food for plants- Animals around us- Classification of animals- Group behavior of animals- Animals diversity (based on ecological conditions)-movements in animals- animal husbandry-Family - Changing family structure - family life -usage of home appliances- Methods of Agriculture - Traditional, Modern, Organic-Agriculture &Tools-economy- Agricultural operation – Cultivation of Crops- diseases to plants and control- improvement of crop yield storage- Preservation and protection of food and plant products- Hybridization

Climate change - drought, deforestation, ecosystem- Weather- Climate- Soil our life- rain- floods- Cyclones- disaster management

Air - Importance of air-composition of air- atmospheric pressure- diseases spread through air and their prevention-air pollution - causes, its impact and measures to prevent- Green House effect

Water - Forms of water -Water resources - Rivers, lakes, canals in A.P and India- How to save water- Need and Importance of water- methods of water conservation- Process of producing and procuring water - Water cycle - ways to keep water resources hygienic- Story of river Krishna- Major rivers in AP- Reasons behind river pollution and its adverse effects- drought and floods- Rain water harvesting -Shelter - Importance of shelter- the places of living in neighbourhood- types of houses- Homeless people- Diversity of shelters depending on climate-Homes of Animals , Insects and Birds- Concern for animals and birds- Organisms and Habitat- Classification of living organisms- Story of microbial world-Useful and harmful micro organisms- Why do we fall ill?- Branches of Sciences- Recent trends in Science- Games and Recreation.

##### **2. Life processes :**

Our Body - Body parts - Sense organs - functions - care & safety measures,-Human body systems,-Major organ systems- FirstAid- Movement and Locomotion - Functions of muscles and bones- Different types of joints- Cartilage,tendon and ligament- Process of movements in animals- Locomotion in birds, snakes,fish and snails- Nutrition in Plants- Cell, cell organelles- parts of plants and functions- Nutrition in plants and animals- excretion-respiration control and coordination-reproduction- seed dispersal in plants- control and coordination in organisms- Our food-Foods available around us - Food from plants and animals- Need of food- Mid-Day Meal- Process of cooking food and preservation- Different food items- Food ingredients- Methods of preparing food- Tasty Food- Food habits- food components- Nutritious food-Health- Cleanliness- Balanced diet- Malnutrition- Food Pyramid- Junk food- Good Touch and Bad Touch

### **3. Natural Phenomena :**

Materials – classification of materials-separating methods - Magnets - Playing with magnets- Measurements -Different measuring instruments- Standard units of measurements- Precautions while measuring -Fabrics -Different types of fabrics- Characteristics and uses- Changes around us- separation of substances –Plastics, metals and non metals- matter- Acids and bases- Motion and time- Energy- Forms of Energy - Energy resources- Renewable and non renewable resources-conservation of energy -Temperature and its measurement- Electricity- Electric circuits- Current and its effects- Sound- reflection of light- Shadows- friction- force- speed- velocity- combustion- fuels and flame- How to measure things- Coal- Petrol- Petroleum products.

### **4. Transportation and Communication:**

Transportation –Objects- signs and signboards used for transport- Places associated with transport- Modes of travel in the present and in the past- Methods of transport in different topographical conditions- Need for an international transport -Import and export of the goods- different means of transport of goods- Importance of tourism and seven wonders of the world- How communication and transport brings the entire world together-Means and objects of Communication- Types of Communication both in Human and Animals ( different feelings and gestures) Modern forms of communication- Communication used in the past and present- Advantage of Mass Communication- Communication through Postcard, Cell Phone and Internet etc.,

### **5. Professions and Services:**

House hold materials with reference to profession (farmer, cobbler, tailor etc)-Different professions and their need to the society- villager/farmer (seeds/manure/ agri methods etc.), helping agents ( bank, e- seva, PHC, panchayat office, post office/etc.,)

### **6. Our Environment:**

Bio diversity- Diversity in plants and animals- let's plant- trees- endangered, endemic species- Forest – Tribes – Tribal life – diversity in forests- Different Ecosystems- Ecology- Bio mass- Abiotic, Biotic factors- Global Environmental Issues-Global warming- Acid rains- depletion of Ozone layer- Stars and Solar systems- River- Lively hood- Atmosphere – wind – safety measures – Historical sites – Our Country – World, Our constitution, Child rights.

Methodology: (3 Marks)

1. Concept and scope of Environmental Studies (Science)
2. Aims & Objectives of teaching Environmental Studies (Science)
3. Academic Standards of Teaching EVS Relation to Science
4. Curriculum and its transactional process –Teaching Methodology
5. Teaching Learning Material (TLM)
6. Evaluation procedures – CCE.

## **Social Studies (Content 12 Marks):**

### **Theme - I: Our Universe:**

Neighbours and Neighbourhood -Sides, directions and corners- Landmark Symbols-understanding the Maps- Globe – A Model of the Earth- Identifying the Continents and Oceans on the Globe- latitudes and Longitudes - Earth Movements and Seasons - Geographical structure of the earth and its diversity- Land Forms of Andhra Pradesh -Rain and Rivers-Tanks and Ground Water – Oceans and Fishing – Continents – Europe – Africa –The Polar Regions - Forests: Using and Protecting them - Minerals and Mining- Solar System - Celestial bodies like Sun, Moon and Stars.

### **Theme - II: Production Exchange and Livelihoods**

From Gathering Food to Growing food – The Earliest People - Early Civilization - Handicrafts and Handlooms - Industrial Revolution - Production in a Factory - A Paper Mill – Importance of Transport System – Safety measures - Money and Banking - Impact of Technology on Livelihoods - Public Health and the Government

### **Theme -III: Political Systems and Governance**

Emergence of Kingdoms and Republics - First Empires - Government - Village Panchayats - Local Self Government - Kingdoms and Empires - The Kakatiyas - Emergence of a Regional Kingdom - The Kings of Vijayanagara - Mughal Empire - Establishment of British Empire in India - Landlords and Tenants under the British and the Nizam - National Movement - The Early Phase 1885-1919 - National Movement - The Last Phase 1919- 1947 - Freedom Movement in Hyderabad State -The Indian Constitution - Parliament and Central Government - Making of Laws in the State Assembly - Implementation of Laws in the District - Law and Justice.

### **Theme -IV: Social Organisation and Inequities**

Diversity in Our Society - Towards Gender Equality -Caste Discrimination and the Struggle for Equalities - Livelihood and Struggles of Urban Workers - Abolition of Zamindari System - Understanding Poverty - Rights Approach to Development

### **Theme - V: Religion and Society**

Religion and Society in Early Times - Devotion and Love towards God - Folk – Religion - Devotional Paths to the Divine - Social and Religious Reform Movements - Understanding Secularism

### **Theme -VI: Culture and Communication**

Language, Writing and Great Books - Sculptures and Buildings - Rulers and Buildings - Performing Arts and Artistes in Modern Times - Film and Print Media - Sports: Nationalism and Commerce.

**Methodology: 03 Marks**

1. Nature and Scope of Social Studies
2. Aims, Objectives and Values of Teaching Social Studies
3. Methods of Teaching Social Studies
4. Resource Utilization, Content Enrichment material
5. Curriculum, Text Book and Instructional Planning
6. Evaluation and Continuous Comprehensive Evaluation