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SYLLABUS 2021 - 22

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பாடத்திட்டம் 2021 – 2022

வகுப்பு: 9

பாடம் : தமிழ்

இயல்	பாடப்பொருள்	
இயல் 1	உரைநடை உலகம் கவிதைப் பேழை கற்கண்டு	- திராவிட மொழிக் குடும்பம் - தமிழோவியம், தமிழ்விடு தூது - தொடர் இலக்கணம்
இயல் 2	கவிதைப் பேழை	- பெரியபுராணம், புறநானூறு
இயல் 3	உரைநடை உலகம் கவிதைப் பேழை விரிவானம் கற்கண்டு வாழ்வியல்	- ஏறுதழுவுதல் - மணிமேகலை - அகழாய்வுகள் - வல்லினம் மிகும்இடங்கள் - திருக்குறள்
இயல் 4	கவிதைப் பேழை விரிவானம் கற்கண்டு	- ஓ என் சமகாலத் தோழர்களே!, உயிர்வகை - விண்ணையும் சாடுவோம் - வல்லினம் மிகா இடங்கள்
இயல் 5	உரைநடை உலகம் கவிதைப்பேழை விரிவானம் கற்கண்டு	- கல்வியில் சிறந்த பெண்கள் - குடும்ப விளக்கு - வீட்டிற்கோர் புத்தகசாலை - இடைச்சொல், உரிச்சொல்
இயல் 6	கவிதைப் பேழை கற்கண்டு வாழ்வியல்	- இராவண காவியம் , நாச்சியார் திருமொழி - புணர்ச்சி - திருக்குறள்
இயல் 7	உரைநடை உலகம் கவிதைப் பேழை	- இந்திய தேசிய இராணுவத்தில் தமிழர் பங்கு - சீவக சிந்தாமணி
இயல் 8	உரைநடை உலகம் கற்கண்டு	- பெரியாரின் சிந்தனைகள் - அலகிடுதல்
இயல் 9	விரிவானம்	- தாய்மைக்கு வறட்சியில்லை

SYLLABUS - 2021 - 2022

STANDARD : 9

SUBJECT : ENGLISH

Unit	Content
1	<p>Prose Learning the Game</p> <p>Poem *Stopping by Woods on a Snowy Evening</p> <p>Grammar Preposition and Prepositional verbs</p>
2	<p>Prose I can't Climb Trees Anymore</p> <p>Supplementary The Fun they Had</p> <p>Grammar Degrees of Comparison</p>
3	<p>Grammar Clauses and Phrases Non-finite verbs Gerunds</p>
4	<p>Prose Seventeen Oranges</p> <p>Poem The Spider and the Fly</p> <p>Grammar Phrasal Verbs Auxiliary verbs and Modals</p>
5	<p>Grammar Tenses</p>

<p style="text-align: center;">6</p>	<p>Poem The Comet</p> <p>Supplementary Mother's Voice</p> <p>Grammar Connectors Active and Passive Voice</p>
<p style="text-align: center;">7</p>	<p>Prose A Birthday Letter</p> <p>Supplementary The Christmas Truce</p> <p>Grammar Determiners Reported Speech</p>

SYLLABUS - 2021 - 2022**STANDARD : 9****SUBJECT : MATHEMATICS**

Unit	Content
1. Set Language	1.1 Introduction 1.2 Set 1.3 Representation of a set 1.4 Types of sets
2. Real Numbers	2.1 Introduction 2.2 Rational Numbers 2.3 Irrational Numbers 2.4 Real Numbers 2.5 Radical Notation
3. Algebra	3.1 Introduction 3.2 Polynomials 3.3 Remainder Theorem 3.4 Algebraic Identities 3.5 Factorization 3.6 Division of Polynomials 3.7 Greatest Common Divisor
4. Geometry	4.4 Parts of a Circle 4.5 Properties of Chords of a Circle 4.6 Cyclic Quadrilaterals 4.7 Practical Geometry
5. Coordinate Geometry	5.1 Mapping of the plane 5.2 Devising the coordinate system 5.3 Distance between any two points 5.4 Midpoint of a line segment
6. Trigonometry	6.1 Introduction 6.2 Trigonometric Ratios of some Special Angles 6.3 Trigonometric ratios for complementary angles 6.4 Method of Using Trigonometric Tables

7. Mensuration	7.4 Surface Area of Cuboids and Cube 7.5 Volume of Cuboids and Cube
8. Statistics	8.1 Introduction 8.2 Collection of Data
9. Probability	9.1 Introduction 9.2 Basic Ideas 9.3 Classical Approach 9.4 Empirical Approach 9.5 Types of Events
(*All examples and exercise problems for the content mentioned above)	

SYLLABUS - 2021 - 2022

STANDARD : 9

SUBJECT : SCIENCE

Unit	Content
1- Measurement	<p>Introduction</p> <ul style="list-style-type: none">1.1 Physical Quantities and Units<ul style="list-style-type: none">1.1.1 Physical quantities1.1.2 Units1.2 SI System of Units1.3 Fundamental Units<ul style="list-style-type: none">1.3.1 Length1.3.2 Mass1.3.3 Time1.3.4 Temperature1.4 Unit Prefixes1.6 Vernier Caliper and Screw Gauge<ul style="list-style-type: none">1.6.1 Description of Vernier Caliper1.6.2 Usage of Vernier Caliper1.6.3 Digital Vernier Caliper1.7 Screw Gauge<ul style="list-style-type: none">1.7.1 Description of Screw Gauge1.7.2 Using the Screw Gauge
2. Motion	<p>Introduction</p> <ul style="list-style-type: none">2.1 Rest and Motion2.2 Types of motion<ul style="list-style-type: none">2.2.1 Uniform and non uniform Motion2.3 Distance and Displacement<ul style="list-style-type: none">2.3.1 Distance2.3.2 Displacement2.4 Speed, velocity, acceleration<ul style="list-style-type: none">2.4.1 Speed2.4.2 Velocity2.4.3 Acceleration

	<p>2.5 Graphical representation of motion along straight line</p> <p>2.5.1 The distance-time graph for uniform motion</p> <p>2.5.2 Distance time graph for non-uniform motion</p> <p>2.5.3 Velocity-time graph</p> <p>2.6 Equations of motion</p> <p>2.7 Motion of freely falling body</p>
<p>3. Fluids</p>	<p>Introduction</p> <p>3.1 Thrust and Pressure</p> <p>3.2 Pressure in Fluids</p> <p>3.2.1 Pressure due to liquids</p> <p>3.2.2 Factors determining liquid Pressure in liquids</p> <p>3.2.3 Pressure due to a liquid Column</p> <p>3.3 Atmospheric pressure</p> <p>3.4 Pascal's Law</p> <p>3.5 Density</p> <p>3.5.3 Floating and Sinking</p> <p>3.5.4 Application of Principle of Floatation</p> <p>3.6 Buoyancy</p> <p>3.7 Archimedes principle</p>
<p>4. Electric Charge and Electric Current</p>	<p>Introduction</p> <p>4.1 Electric charges</p> <p>4.1.1 Measuring electric charge</p> <p>4.1.2 Electric force</p> <p>4.1.3 Electric field</p> <p>4.1.4 Electric potential</p> <p>4.2 Electric current</p> <p>4.2.1 Direction of current</p> <p>4.2.2 Measurement of electric current</p> <p>4.2.3 Electromotive force (e.m.f)</p> <p>4.2.4 Potential difference (pd)</p> <p>4.2.5 Resistance</p>

	<p>4.5 Types of current</p> <p>4.5.1 Direct current</p> <p>4.5.2 Alternating current</p>
5. Magnetism & Electromagnetism	<p>Introduction</p> <p>5.1 Magnetic field</p> <p>5.2 Magnetic field lines</p> <p>5.2.1 Magnetic flux</p> <p>5.2.2 Properties of magnetic lines of force</p> <p>5.3 Magnetic effect of current</p> <p>5.4 Force on a current carrying conductor in a magnetic field</p> <p>5.5 Force on parallel current carrying conductors.</p> <p>5.6 Electric motor</p> <p>5.7 Electromagnetic Induction</p> <p>5.7.1 Faraday's Experiments</p> <p>5.7.2 Fleming's Right Hand Rule</p> <p>5.8 Electric generator</p> <p>5.10 Applications of electro magnets</p> <p>5.10.2 Magnetic Levitation Train</p> <p>5.10.3 Medical system</p>
6. Light	<p>Introduction</p> <p>6.1 Reflection of Light</p> <p>6.1.1 Laws of reflection</p> <p>6.4 Concave Mirror</p> <p>6.4.1 Image Formation</p> <p>6.4.2 Sign convention for measurement of distances</p> <p>6.4.3 Mirror equation</p> <p>6.4.4 Linear Magnification</p> <p>6.5 Convex Mirror</p> <p>6.5.1 Image formation</p> <p>6.6 Speed of light</p> <p>6.7 Refraction of light</p>

7. Heat	Introduction 7.1 Effects of Heat 7.2 Transfer of Heat 7.2.1 Conduction 7.2.2 Convection 7.2.3 Radiation 7.6 Change of state
8. Sound	Introduction 8.1 Production of sound 8.2 Propagation of sound waves 8.2.1 Sound needs a medium for Propagation 8.3 Characteristics of a sound Wave 8.5 Speed of sound 8.9 Ultrasonic Sound 8.9.1 Applications of Ultrasonic Waves
9. Universe	Introduction 9.5 Kepler's Laws 9.6 International Space Station 9.6.1 Benefits of ISS 9.6.2 ISS and International cooperation
10. Matter Around Us	Introduction 10.1 Classification of Matter 10.1.1 Elements 10.1.2 Compounds 10.1.3 Mixtures 10.1.4 Differences between compounds and mixtures 10.2 Types of mixtures 10.2.1 Homogeneous and Heterogeneous mixtures
11. Atomic Structure	Introduction 11.5 Atomic number and Mass number 11.5.1 Electronic configuration of atoms 11.5.2 Valence electrons 11.5.3 Valency 11.6 Isotopes, Isobars and Isotones

	<ul style="list-style-type: none"> 11.6.1 Isotopes 11.6.2 Isobars 11.6.3 Isotones 11.7 Laws of chemical combinations <ul style="list-style-type: none"> 11.7.1 Law of multiple Proportions 11.7.2 Law of reciprocal Proportions 11.7.3 Gay Lussac's law of combining Volumes
12. Periodic Classification of Elements	<ul style="list-style-type: none"> Introduction 12.1 Early concepts of classification of elements <ul style="list-style-type: none"> 12.1.1 Dobereiner's triads 12.1.2 Newland's law of octaves 12.1.3 Mendeleev's periodic table 12.3 Metals, non-metals and metalloids <ul style="list-style-type: none"> 12.3.1 Metals 12.3.2 Non-metals 12.3.3 Metalloids
13. Chemical Bonding	<ul style="list-style-type: none"> Introduction 13.3 Types of chemical bond <ul style="list-style-type: none"> 13.3.1 Ionic or electrovalent bond 13.3.2 Covalent bond 13.3.3 Co-ordinate covalent bond
14. Acids, Bases and Salts	<ul style="list-style-type: none"> Introduction 14.1 Acids <ul style="list-style-type: none"> 14.1.1 Classification of acids 14.1.2 Properties of acids 14.1.3 Uses of acids 14.2 Bases <ul style="list-style-type: none"> 14.2.1 Classification of base 14.2.2 Properties of bases 14.2.3 Uses of bases 14.3 Tests for acids and bases

<p>15. Carbon and its Compounds</p>	<p>Introduction</p> <p>15.1 Discovery of Carbon – Milestones</p> <p>15.2 Compounds of Carbon – classification</p> <p>15.2.1 Organic compounds of Carbon</p> <p>15.2.2 Inorganic compounds of Carbon</p> <p>15.3 Special features of Carbon</p> <p>15.3.1 Catenation</p> <p>15.3.2 Tetravalency</p> <p>15.3.3 Multiple bonds</p> <p>15.3.4 Isomerism</p> <p>15.7 Plastics – Catenated long chain carbon compounds</p> <p>15.7.1 Drawbacks of plastics</p> <p>15.8 New rules to make Tamilnadu plastic free</p> <p>15.8.1 Banned items</p> <p>15.9 Role of students in the prevention of plastic pollution</p> <p>15.9.1 What can you do to prevent plastic pollution?</p> <p>15.9.2 Practice in your daily life</p>
<p>16. Applied Chemistry</p>	<p>Introduction</p> <p>16.2 Pharmaceutical Chemistry</p> <p>16.2.1 Drugs</p> <p>16.2.2 Characteristics of drugs</p> <p>16.3 Electrochemistry</p> <p>16.3.1 Electrochemical cell</p> <p>16.4 Radiochemistry</p> <p>16.4.1 Applications of Radio chemistry</p> <p>16.6 Agricultural and Food chemistry</p> <p>16.6.1 Agricultural chemistry</p> <p>16.6.2 Food chemistry</p>

<p>17. Animal Kingdom</p>	<p>Introduction</p> <p>17.1 Classification of living Organisms</p> <p>17.1.1 Basis for classification</p> <p>17.2 Invertebrata</p> <p>17.2.1 Phylum Porifera</p> <p>17.2.2 Phylum Coelenterata</p> <p>17.2.3 Phylum Platyhelminthes</p> <p>17.2.4 Phylum Aschelminthes</p> <p>17.2.5 Phylum Annelida</p> <p>17.2.6 Phylum Arthropoda</p> <p>17.2.7 Phylum Mollusca</p> <p>17.2.8 Phylum Echinodermata</p> <p>17.2.9 Phylum Hemichordata</p>
<p>18. Organization Of Tissues</p>	<p>Introduction</p> <p>18.1 Plant Tissues</p> <p>18.1.1 Meristematic Tissues</p> <p>18.1.2 Permanent Tissues</p> <p>18.2 Animal Tissues</p> <p>18.2.1 Epithelial Tissue</p> <p>18.2.2 Connective tissue</p> <p>18.2.3 Muscular tissue</p> <p>18.2.4 Nerves tissue</p>
<p>19. Plant Physiology</p>	<p>Introduction</p> <p>19.1 Tropism in plants</p> <p>19.1.1 Types of tropism</p> <p>19.2 Nastic movements</p>
<p>21. Nutrition and Health</p>	<p>Introduction</p> <p>21.1 Classes of nutrients</p> <p>21.1.1 Carbohydrates</p> <p>21.1.2 Proteins</p> <p>21.1.3 Fats</p> <p>21.1.4 Vitamins</p> <p>21.1.5 Minerals</p> <p>21.2 Protein Energy Malnutrition (PEM)</p>

<p>22. World of Microbes</p>	<p>Introduction</p> <p>22.3 Microbes and Diseases</p> <p>22.4 Airborne Diseases</p> <p>22.5 Waterborne Diseases</p> <p>22.6 Vector Borne Diseases</p> <p>22.6.1 Malaria</p> <p>22.6.2 Chikungunya</p> <p>22.6.3 Dengue</p> <p>22.6.4 Filaria</p> <p>22.6.5 Mosquitoes – Prevention and Control</p> <p>22.7 Diseases Transmitted by Animals</p> <p>22.7.1 Swine Flu</p> <p>22.7.2 Avian Influenza</p> <p>22.8 Sexually Transmitted Diseases</p> <p>22.8.1 AIDS</p> <p>22.9 Immunization</p> <p>22.9.1 Vaccines and its types</p> <p>22.9.2 Immunization schedule</p>
<p>23. Economic Biology</p>	<p>Introduction</p> <p>23.1 Horticulture</p> <p>23.1.1 Pomology or Fruit farming</p> <p>23.1.2 Olericulture or vegetable farming</p> <p>23.1.3 Floriculture or Flower farming</p> <p>23.1.4 Landscape gardening</p> <p>23.2 Manuring</p> <p>23.2.1 Animal manure</p> <p>23.2.2 Compost</p> <p>23.2.3 Green manure</p> <p>23.4 Medicinal Plants</p> <p>23.9 Dairy Farming</p> <p>23.9.1 Cattle breeds</p> <p>23.9.2 Composition of cattle feeds</p> <p>23.9.3 Feed management</p> <p>23.9.4 Improvement of Livestock development in India</p>

	<p>23.13 Vermitechnology</p> <p>23.13.1 Vermiculture</p> <p>23.13.2 Vermicomposting</p> <p>23.14 Apiculture</p> <p>23.14.1 Types of honey bee</p> <p>23.14.2 Varieties of honey bee</p> <p>23.14.3 Structure of bee comb</p> <p>23.14.4 Products from honey bee</p>
24. Environmental Science	<p>Introduction</p> <p>24.1 Biogeochemical Cycles</p> <p>24.1.1 Water Cycle</p> <p>24.1.2 Nitrogen Cycle</p> <p>24.1.3 Carbon Cycle</p> <p>24.3 Adaptations of Animals</p> <p>24.3.1 Adaptations of Bat</p> <p>24.3.2 Adaptations of Earthworm</p>
Practicals	<ol style="list-style-type: none"> 1. Vernier Caliper 2. Screw gauge 4. Measurement of volume of liquid. 5. Identification of adaptation in animals. 6. Identification of plant and animal tissues.

Syllabus – 2021 - 2022

Standard: 9

SUBJECT: SOCIAL SCIENCE

Unit	Content
History	
1. Evolution of Humans and Society– Prehistoric Period	1.1 Origin of the earth and geological ages. 1.2 Human enquiries into the past and origin of the world. 1.4 Pre-Historic Tamilagam
2. Ancient Civilisations	2.1 Ancient Civilization 2.5 Indus Valley Civilization
3. Early Tamil Society and Culture	Entire unit
4. Intellectual Awakening and Socio–Political Changes	4.1 Religion in the Sixth Century BC 4.3 Zoroastrianism 4.4 Impact of iron technology in India 4.5 Religion: Rig Vedic 4.6 Jainism and Buddhism 4.7 Other Heterodox sect
5. The Classical World	5.2 Rome: The Hellenistic World 5.4 Rise of Christianity
6. The Middle Ages	6.3 Islam and the Rise of Islamic 6.5 Feudalism
7. State and Society in Medieval India	7.1 Political Changes 7.2 Impact on Polity 7.3 Society 7.4 Culture
8. The Beginning of the Modern Age	8.1 Causative Factors 8.5 Geographical Discoveries 8.6 Impact of Geographic Discoveries
9. The Age of Revolutions	9.1 The American War Of Independence 9.2 The French Revolution

10. Industrial Revolution	10.1 Attributes of Industrial Revolution 10.2 Effects of industrial revolution in England 10.3 Spread of Industrial Revolution 10.6 Impact of Industrial Revolution in India
11. Colonialism in Asia and Africa	11.3 Colonisation of India 11.4 Economic Impact of British rule
Geography	
1. Lithosphere-i Endogenic Processes	1.1 Spheres of Earth 1.2 Structure of Earth 1.4 Earthquakes and Volcanoes
2. Lithosphere-ii Exogenic Processes	2.1 Weathering 2.2 Running Water
3. Atmosphere	3.1 Composition of the Atmosphere 3.2 Structure of the Atmosphere 3.3 Factors influencing Weather and Climate
4. Hydrosphere	4.1 Hydrosphere 4.2 Hydrological cycle 4.3 Freshwater 4.4 Oceans
5. Biosphere	5.1 Eco system 5.2 Bio diversity
6. Man and Environment	6.6 Sustainable Development
7. Mapping Skills	Entire unit
8. Disaster Management: Responding to Disasters	Entire unit
Civics	
1. Forms of Government and Democracy	Entire unit
2. Election Political Party and Pressure Groups	Entire unit
3. Human Rights	Entire unit
4. Forms of Government	Entire unit
5. Local Self Government	Entire unit
6. Road safety	Entire unit

Economics	
1. Understanding Development: Perspectives Measurement and Sustainability	1.1 Different Perspectives About Development 1.2 Indicators of Economic Development 1.4 Policies for Sustainable Development 1.5 Environment Policies in India
2. Employment in India and Tamilnadu	Introduction 2.1 Employment Structure in India
3. Money And Credit	Introduction 3.6 Role of the Reserve Bank of India 3.8 Functions of money 3.9 Credit
4. Agriculture in Tamilnadu	Entire unit
5. Migration	5.1 Extent of Migration in India and Tamilnadu 5.2 Factors underlying Migration