



## Content - Semester 1

The D.Ed Course follows the semester pattern. The first Semester ( $S_1$ ) will be from June to October every year. Continuous evaluation will be conducted for all papers. But all papers will not have terminal examination. The details of various papers of the First Semester ( $S_1$ ) are given below.

### 7.1 Details of the Papers of the first semester ( $S_1$ )

There are six papers in the first semester. The paper 'Child Development and Learning', based on educational psychology and the one titled 'Curriculum and Pedagogy' for understanding the curriculum, pedagogy and evaluation are suggested in the first semester. In addition to this, the paper, 'Malayalam -

History, Structure and Social Background' is suggested for learning the mother-tongue. The paper 'Proficiency in English Language' is suggested for English language learning. The papers 'Environment - A Textbook' related to Environmental Studies and Mathematics Learning and Approach- related to the of Mathematics are included. Child development and Learning, Curriculum and Pedagogy and Malayalam will have a public examination 60 marks and continuous evaluation for 20 marks other subjects such as English language learning, Environmental Studies and learning of Mathematics will have only continuous evaluation for 20 marks.

### 7.2 First Semester ( $S_1$ ) : Paper - Details of Score

No.	Paper	Name of the Paper	Details of Score		
			Continuous Evaluation	Theory Exam	Total
1	$S_1 . P_1$	Child Development and Learning	20	60	80
2	$S_1 . P_2$	Curriculum and Pedagogy	20	60	80
3	$S_1 . P_3$	Malayalam - History, Structure, Social Context	20	60	80
4	$S_1 . P_4$	Proficiency in English Language	20	-	20
5	$S_1 . P_5$	Environment a Textbook	20	-	20
6	$S_1 . P_6$	Mathematics Learning and approach	20	-	20
			<b>120</b>	<b>180</b>	<b>300</b>

## 7.3 Details of the papers for the first semester

### 7.3.1. Educational Psychology

The paper '**Child Development and Learning**' is introduced in the first semester to build a foundation in psychology in the student teachers. The details are given below.

#### Rationale

The student teacher must acquire a basic awareness of educational psychology in order to mould active teachers.. The student teacher should make a meaningful study of growth, development, learning, knowledge acquisition and the socio-cultural perspectives of learning in children. Theory and practical must go hand in hand. The knowledge gained on aspects of educational psychology must be related to school experiences wherever required . The various units should be systematically distributed and transacted in a time-bound manner over two years relating them to suit the learning of school experiences. Each student teacher should acquire the methodology of teaching that assimilates the socio-cultural level of a primary student. For this they must gain an insight above practical aspects of educational psychology. The student teacher should also have a clear idea above health and health in particular.

#### Course Structure and Transaction

The study of these subjects are expected to give the student teachers experiences that enable them to psychologically analyse and solve problems that may arise in a primary class In order words the student teacher should gain experience in converting theoretical to the practical. In this manner it becomes imperative to design practical activities based on theories of psychology for each unit and ensure that they get implemented properly.

The effective use of information and communication technology should be ensured to make the study of psychology effective.

Devices such as seminars, symposia, discussions, experiments, observations, field trips, case-study, projects, research activities etc. should be used to ensure continuous and comprehensive evaluation. Essential reading materials referense reading materials may be suggested for ensuring meaningful learning. Each child should acquire higher standards so that he/she is able to prepare refletive journals.

#### Objectives

The following objectives are to be met to ensure effective teaching that makes use of the socio-cultural context of learning.

- It is important to know the child. To form an idea for identifying the biological, psychological and sociological characteristics. of the child through school visit, house visit (in the case of children with special educational needs), observation and case study.
- Understanding child development and obstacles to development.
- Understanding the social and cultural perspectives that influence development.
- Understanding the learning and various psychological approaches to learning through various modes of discussion and reference.
- Identifying the various factors that influence learning.
- Understanding various perspectives on intelligence and intellectual development.
- Understanding the process of personality development in children and

the factors that influence personality development.

- Understanding the socio-cultural context for effective learning.
- Acquiring a ground idea of counselling-different perspectives and techniques / to practical experience.

<b>Paper No.</b>	<b>Name of paper</b>
<b>S<sub>1</sub>.P<sub>1</sub></b>	<b>Child Development and Learning</b>
<b>Total Score : 80</b> <b>(Continuous Evaluation (CE) 20 + Terminal Examination (TE) 60)</b>	
<b>Total time for a Semester : 90 hours</b>	
<b>Time for one week : 5 hours</b>	

### **Content**

#### **Unit 1 : Educational Psychology - A branch of Science**

(Time : 20 hours)

- Psychology - Definitions
- Various branches of Psychology
  - Basic branches of Psychology
  - Applied Psychology
- Educational Psychology
- The scope, importance and limitations of Educational Psychology

- Methods of Psychological Study
  - Observation, interview
  - Experimentation
  - Case Study
  - Anecdotal method
  - Cumulative record study
  - Reflective journal prepared by children
- Devices of Psychological research
  - Questionnaire
  - Checklist
  - Rating Scale
  - Schedules
  - Psychological Tests
  - Anecdotal record
  - Cumulative record
  - Sociogram

#### **Unit 2 : Child Development (Time : 35 hours)**

##### **Child Development and Learning**

- Growth, development - Basic ideas
- Stages of growth
- Theories of Child Development
- Factors influencing child development
- Requirements for development (Havighurst)
- Areas of Development
- Cognitive development (Piaget)

- Social development (Ericson Qandura)
- Emotional development (K.M. Bridges)
- Moral Development (Kohlberg)
- Motor development
- Games - functions, characteristics.
- Impact of social, cultural and economic status.
- The influence of games on various areas of development (including linguistic development)
- Life span development -basic ideas

### **Unit 3 : Learning (Time : 35 hours)**

- Learning - general ideas
- The different approaches to learning (behavioural, social, cognitive, information processing, cognitive constructivist, social constructivist)
- Connectionism (Thorndike) Trial and Error theory
- Classical conditioning (Pavlov, Skinner, Watson)
- The significant perspectives of Behaviourism, varied perspectives on learning and the process of learning.
- Gestalt Psychology - Maxwetheimer, Kafka
- Insight learning (Kohler)
- The Educational relevance of Gestalt psychology
- Constructivism (Piaget) - Assimilation - Establishment - Schema
- Jerome S. Bruner and Cognitive Constructivism
  - Discovery learning
  - Spiralling
  - Stages of idea formation

- Concept attainment model
- Learning - a social process
- Social Cognitive Constructivism (Vygotsky, Bruner)
  - Learning - A Socio- Cultural process
  - Zone of Proximal Development (ZPD)
  - Scaffolding
  - Reciprocal teaching
  - Co-operative and collaborative learning
  - Dialogic Learning
  - Relevance of Classroom
- Humanism - Karl Rogers - Learning theories
- Factors influencing learnings
  - Motivation
  - Maturation
  - Attention
  - Attitude
  - Intelligence
  - Anxiety
  - Method of Learning
  - Learning pace
  - Familial and social factors
  - Learning atmosphere
  - Physical, mental and health related disabilities and so on
  - Classroom relevance

## Method of transaction

The units of Semester 1 will be transacted using the following methods.

- Observation
- Analysis of experiences
- Interview
- Practical
- Seminar
- Panel Discussion
- Group Discussion
- Debate
- Assignments
- Case Study
- Research activities
- Use of ICT
- Workshops
- Analytical Report
- Field trip
- Project
- Survey

## Evaluation

There will be two types of evaluation for the paper 'Child Development and Learning', in Semester I

1. Terminal Examination - Score 60
2. Continuous Evaluation (including practical) -Score 20

### 1. Terminal Examination

Questions that test application of theories and concepts in the classroom and questions that call for explanations on the relevance of educational practices are to be included in the Terminal Examination Question Papers.

### 2. Continuous Evaluation

In addition to the continuous evaluation at the appropriate time made through individual and group activities while transacting the curriculum, the self evaluation and peer evaluation made by the students should also be made use of. Moreover, group evaluation can also be carried out. A maximum of 20 scores may be awarded for suitable items and the average may be converted to C.E score.

## S<sub>1</sub>.P<sub>1</sub> Child Development and Learning

Content	Transaction
<p><b>Unit 1 : Educational Psychology - A branch of Science (Time : 20 hours)</b></p> <p>Educational Psychology - A branch of Science</p> <p>1.1 What is Psychology?</p> <ul style="list-style-type: none"> <li>Definitions (Earlier Definitions - William Wund, William James, Modern Definitions - Piaget, Vygotsky)</li> </ul> <p>1.2 Various streams of Psychology</p> <ul style="list-style-type: none"> <li>Basic branches of Psychology (General Psychology, Physiological Psychology, Experimental Psychology, Neuro Psychology), Branches of Applied Psychology (Educational Psychology, Clinical Psychology)</li> <li>Educational Psychology - As applied psychology</li> </ul> <p>1.3 Educational Psychology (Definition, scope, relevance, limitations)</p> <p>1.4 Methods of investigation in Psychology.</p> <ul style="list-style-type: none"> <li>Observation, interview, experimentation case study, anecdotal Method, cumulative record study, reflective journal.</li> </ul> <p>1.5 Devices for Psychological research (questionnaire, checklist, rating scale, schedules, psychological tests, anecdotal record, cumulative record, sociogram).</p>	<ul style="list-style-type: none"> <li>Identifies the nature and method of psychology based on the important concepts (behaviour, mental processes, scientific study) in the definitions.</li> <li>▲ How is the methodology of science used in Psychology?</li> <li>▲ What are the factors governing human behaviour? How far can they be subjected to study and observation?</li> <li>■ Identifies the specific contexts and modes in which the information and perspectives gathered from various branches of psychology can be utilised.</li> <li>■ Discusses and consolidates solutions for problems/usages in the classroom based on general awareness. Compares with hypotheses derived from research in psychology. For eg:- When should the teacher extend help to an under-performing child?</li> <li>■ Identifies the method by which the perspectives of Educational Psychology can be used in areas such as learning, teaching, classroom interaction and class management.</li> <li>■ Discusses/ explains how educational psychology may be incorporated in approaches and practical projects of certain significant areas on the basis of specific contexts/problems. For eg:- Effective teaching, construction of teaching learning materials, healthy interaction with the students, controlling undesirable behaviour/punishment, encouraging motivation</li> <li>• Application of select psychological study methods.</li> <li>■ Preparing questionnaires and checklists in specific areas.</li> <li>■ Collect data using standardized tools and analyse the data.</li> </ul>

Content	Transaction
<p><b>Unit 2 : Child Development (Time : 35 hours)</b>  <b>Child development and learning</b></p> <p>2.1 Growth, development - basic ideas</p> <ul style="list-style-type: none"> <li>• Growth : (Physical change that can be observed and measured; physical deviations and changes; structural and evolutionary change/development) (continuous process - qualitative change - structural and functional)</li> </ul> <p>2.2 Stages of development (pre-natal period, post-natal period, infancy, childhood, adolescence, puberty) relation between growth and development, individual differences in growth rate.</p> <p>2.3 Developmental theories</p> <ul style="list-style-type: none"> <li>• Development is a continuous process - development is systematic -there are individual differences in the rate of development- the pace of development is predictable - there is a mutual relationship between different developmental areas - development is the result of learning and maturation - each stage of development has expected developmental tasks - findings of Havighurst.</li> </ul> <p>2.4 Factors influencing child development - heredity, environment, maturation, learning</p> <p>2.5 Developmental needs (Havighurst)</p> <p><b>Developmental areas</b></p> <p>2.6 Cognitive development</p> <ul style="list-style-type: none"> <li>• Cognitive development, general understanding, concepts Piaget- schema, adaptations, assimilation, accommodation equilibrium - development of cognitive structure - a continuous process - stages of intellectual development - the stage of channalisation of senses (0-2), pre-stage, stage of abstract concepts, the peculiarities of each stage - the cognitive peculiarities of each stage - cognitive characteristics of students - the need to consider the stages of cognitive development while assigning learning activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Forms the concept that education should correspond to developmental stages and structures.</li> <li>• In some cases development in each student is similar to that in others. In some cases they are similar to many others. In some others there is no similarity with others.</li> </ul> <ul style="list-style-type: none"> <li>▶ Genetic (internal) factors and environmental (external) factors influence development in different ways.</li> <li>▶ What would be the needs of children (social, material) at different stages of development?</li> <li>■ Analyses how the developmental stages reflect school curriculum/learning materials at various levels.</li> <li>■ Make presentation on how select concept areas of various subjects can be prepared for students of various developmental stages.</li> <li>■ Compares the rates of developmental norms of different nations.</li> <li>■ Prepares a plan on seating arrangement in a classroom considering the infrastructure facilities.</li> <li>■ Identifies the stand to be taken during contexts in which children with physical differences engage in games and sports together.</li> </ul> <ul style="list-style-type: none"> <li>• Acquires cognitive foundation to apply Piaget's concept in areas such as teaching learning, preparation of learning materials, selection/construction of learning tools and devices.</li> <li>■ Finds out the characteristics that correspond to cognitive development, comparing pictures drawn by children who belong to different age groups.</li> <li>■ Repeats Piaget's experiments and records the findings.</li> <li>■ Identifies, records and discusses the teaching/learning techniques of students of different developmental stages.</li> </ul>

Content	Transaction
<p>2.7 Social development, emotional development and moral development</p> <ul style="list-style-type: none"> <li>• Social development general understanding - Ericson's theory about social development (explanation of 8 stages). Bandura's observation about social development - the importance of imitation, repetition, modelling - the need to develop self-efficiency - social development for comprehensive development - emotional development, moral development, Kohlberg's theory.</li> </ul> <p>2.8 Motor Development</p> <ul style="list-style-type: none"> <li>• General understanding in motor development - factors influencing motor development, the relation with other areas of development games - the role in comprehensive development</li> </ul> <p>2.9 Games - functions, peculiarities</p> <ul style="list-style-type: none"> <li>• The changes effected by social, cultural and economic condition on games</li> <li>• The influence of games in different areas of development</li> <li>• Life span development - basic facts</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies the various factors influencing the social development of a child and how they influence social development, learning and interaction with other children.</li> <li>• Gains the ability to use transactional strategies that promote qualitative social development. <ul style="list-style-type: none"> <li>■ Prepares interview questionnaire on the family atmosphere and parental intervention of problem children and collects data for this.</li> <li>■ Finds out how children of different age group respond to contemporary social issues; analyses the social perspective behind their responses.</li> <li>■ With the help of one or two simple cartoon films, analyses how cartoon films influence character formation, behavior and learning of children, based on the responses gathered.</li> </ul> </li> <li>▶ To what extent do games facilitate in the comprehensive development of a child?</li> <li>▶ Which are the social values that could be developed through games? <ul style="list-style-type: none"> <li>■ Observing various games played by children of pre-school and LP school sections and finds out the differences in them.</li> <li>■ Analyses the activities inherent in games and explains the cognitive abilities that are associated with them.</li> </ul> </li> </ul>



Content	Transaction
<p><b>Unit 3 : Learning (Time : 35 hrs)</b></p> <p>3.1 Learning - Basic Facts</p> <ul style="list-style-type: none"> <li>• Learning is a process where the learner gains new insights or transforms earlier ones.</li> <li>• Learning (Levin) - Learning is the change brought in the behaviour of living beings- the desirable behavioural change in individuals.</li> <li>- Learning becomes effective when it is an active process - the changes in an individual as a result of maturation are not considered as learning- Learning involves not only experiences gained by an individual, the experience of persons also add to the individual's experiences through observation and interaction.</li> <li>• Learning is an adaptation process</li> </ul> <p>3.2 The five approaches to learning- behavioural, social, cognitive cognitive-constructivist, social- constructivist, information processing, gestalt.</p> <p>3.2.1 Different approaches to learning - origin and growth: The theorists of behaviourism connectivism trial and error theory, conditioning - Pavlov, Thorndike, Skinner and Watson - notable experiments - the educational relevance of behaviourism.</p> <p>3.2.2 Social Cognitivism Theory propounded by Albert Bandura - The social, cognitive and behavioural factors that influence learning are self efficiency and observational learning - the process involved are attention, retention, production, motivation.</p>	<ul style="list-style-type: none"> <li>• Identifies how concepts on learning are reflected in daily life situations, some intellectual task and learning activities.</li> <li>▲ What is the relevance of behaviourism in complex learning objectives which cannot be simplified?</li> <li>■ Finds out how the concepts of behaviourism can be applied in areas like punishment, appreciation, reinforcement and inspiration.</li> <li>■ Identifies and discusses the contexts in which teachers make use / can make use of concepts of behaviourism, by way of class observation. The language, body language and class control of the teacher can be observed.</li> <li>▲ What should be the models the teachers should give the students through their behaviour?</li> <li>▲ What are the possibilities of learning through imitation in a classroom?</li> <li>■ Finds out how different social contexts influence learning. (For eg. What could be the special learning abilities of a child from an agrarian family?)</li> <li>■ Identifies the qualities of a mentor, after observing the classes taken by different teachers.</li> <li>■ Suggest some personalities that can be desirable models for learners. Discuss the particular aspects of such personalities, that become a model for the learners.</li> </ul>

Content	Transaction
<p>3.2.3 Information processing Approach Analysing and organizing information using cognitive abilities is the foundation for learning - memory and thinking abilities are important - the role of memory, attention, organization of idea and forgetfulness in learning, metacognition.</p> <p>3.2.4 Cognitive Constructivist Approach Constructing knowledge using higher cognitive abilities and formation of ideas are important in learning concept formation, thinking and reasoning, critical and creative thinking, problem solving, theories of Piaget - developmental stages assimilation and establishment of schemes.</p> <p>3.2.5 Social Constructivist Approaches Construction of knowledge by sharing with others and understanding the concepts are important in learning - how do the social context and interaction influence learning? Scaffolding, cognitive apprenticeship, the learning concepts of Jerome Bruner, discovery learning, stages of concept formation, concept attainment model, classification, process - oriented learning. The learning theories of Vygotsky, learning takes place by cultural tools, ZPD, reciprocal teaching.</p> <ul style="list-style-type: none"> <li>- Co-operative Learning and Collaborative Learning</li> <li>- Dialogic Learning</li> <li>- Classroom relevance</li> <li>- Humanism (Karl Rogers) learning principles</li> <li>- Factors influencing learning, motivation, maturation, attention, attitude, intelligence, anxiety, learning style, rate of learning, familial and social factors, learning atmosphere, physical, mental and health-related disabilities</li> </ul> <p>Classroom relevance</p>	<ul style="list-style-type: none"> <li>■ Through observation, finds out whether some children have behavioural characteristics which can be modelled by other children. Discusses how these qualities can be utilized for other children to model upon, in classroom situations.</li> <li>■ Analyse the kind of models that the characters of popular movies/television serials provide the students (values, behaviour patterns)</li> <li>■ Finds out the role of memory and cognition in analyzing and understanding the concepts of various subjects.</li> <li>■ Explains the techniques to improve memory based on the concepts of various subjects.</li> <li>■ Identify the mental processes that are necessary for concept formation while analyzing content areas.</li> <li>■ Identifies the thinking skills that are involved in learning activities suggested in textbooks.</li> <li>■ Observe the students discussing possibilities and methods of problem solving. Analyse how mutual interaction helps problem solving and how mutual interaction can be encouraged.</li> <li>■ Examine the scope of collaborative learning in the case of conceptual areas of various subjects.</li> <li>■ Observe the classes conducted by experienced teachers and find out the range of teacher-student interaction based on concepts and their nature.</li> <li>■ Observe group activities of students. Understand the characteristics of those learners who are reluctant to participate in the interaction. Discuss how these children could be led to active participation.</li> </ul> <ul style="list-style-type: none"> <li>• Data collection and discussion through reference</li> <li>• Panel Discussion</li> </ul>

### പുസ്തകസൂചിക

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### 7.3.2 Curriculum and Pedagogy

The paper 'Curriculum and Pedagogy' has been suggested to create a foundation in the student teacher on curriculum, pedagogy and evaluation. The details are given below.

#### Rationale and Objectives

What is emphasized here is the significant task of orienting the mere learner at school to the teaching process. Our aim is to create the adequate knowledge, attitude, skill and readiness in the student teachers. For this, the student teachers must know the pros and cons of the teaching learning process. That is, they must have a comprehensive understanding of the curriculum, pedagogy and evaluation. Teaching is facilitated on the basis of the curriculum. Therefore, they must know what the curriculum is and how it is framed. The student teacher should have knowledge on how the teacher should consider children of various age groups, how various subjects should be approached and the pedagogical basis behind all these. Evaluation is an inevitable part of learning. The student teacher should understand how evaluation progresses along with learning and the techniques that could be employed in it. The application of ICT in making learning effective is inevitable. Content acquisition and transaction should go with ICT. The student teacher must gain expertise in ICT for this. This curriculum opens up opportunities for this.

It is on the basis of all these perspectives that 'Curriculum and Pedagogy' is suggested for learning.

#### Running Thread

Curriculum, Pedagogy and Evaluation are the basic concepts and techniques to enable learning. Therefore, opportunities must be provided for getting to know the basic theories regarding curriculum framing, different curricula etc.

After understanding the curriculum, its mode of transaction should also be understood. A scientific understanding of the concepts like teacher and student who engage in transaction should be attained. The student teachers are made to acquaint with matters like different teaching systems, teaching materials, effective planning on their basis etc. As in any case evaluation is an inevitable part of the field of teaching. Awareness on aspects like the different levels of evaluation, methods, significance is essential. The unit focuses on the need that the student teachers who have acquired concepts in this way constantly follow research which is the significant area of teacher development. For this the unit provides preliminary ideas on research. I.C.T must be made use of in all instances stated above for data collection and transaction. It must be ensured that all children possess the basic skills required for this. Therefore the basic lessons of I.C.T and their scope in teaching are also introduced through different units.

#### Objectives

1. To identify the importance of curriculum and pedagogy in teacher education and inculcate positive attitude to it.
2. To examine critically and evaluate the existing pedagogical practices and learning processes and form theoretical ideas
3. To understand pedagogical methods and concepts like child centred learning, discovery learning, activity based learning and I Q and equip the student teacher to fulfil the teaching process effectively.
4. To devise and organize teaching techniques in accordance with the learner's nature.
5. To inculcate research skills in student teachers and execute them
6. To imbibe concepts related to evaluation and devise new techniques
7. To be able to make use of ICT skills in the teaching process and evaluation activities.

<b>PaperNo.</b>	<b>Name of paper</b>
<b>S<sub>1</sub>.P<sub>2</sub></b>	<b>Curriculum and Pedagogy</b>
<b>Total Score</b>	<b>: 80</b> <b>(Continuous Evaluation (CE) 20 +</b> <b>Terminal Examination (TE) 60)</b>
<b>Total time for a Semester</b>	<b>: 60 hours</b>
<b>Time for one week</b>	<b>: 5 hours</b>

## **Content**

### **Unit 1 : Curriculum -Foundation of Teaching/ Learning**

(Time : 20 hours)

### **Unit 2 : Teaching/Learning Approaches and Teaching Competency**

(Time : 25 hours)

### **Unit 3 : Evaluation - Approach and Application**

(Time : 20 hours)

### **Unit 4 : Role of Research in the Teaching/Learning Process**

(Time : 10 hours)

### **Unit 5 : ICT in the Teaching/Learning Process**

(Time : 20 hours)

## S<sub>1</sub>.P<sub>2</sub> Curriculum and Pedagogy - Details of the Unit

Content	Transaction
<p><b>Unit 1: Curriculum - Foundation of Teaching/ Learning (Time : 20 hours)</b></p> <p><b>Curriculum</b></p> <ul style="list-style-type: none"> <li>• Ideas and Concepts</li> <li>- The general framework for planning the teaching sessions and for learning.</li> <li>- Definition</li> <li>- Why should there be a curriculum? (The objective of making education universal)</li> <li>• Facts : Learning, Teaching, Planning</li> <li>- Curriculum etymology &amp; history (from the Latin word 'curier' which means race track)</li> <li>• National Curriculum Framework</li> <li>- The broader aims, specific objectives and pedagogical aims of the curriculum.</li> <li>- Regional curriculum</li> <li>- Including regional experiences</li> <li>• The basic principles of curriculum construction</li> <li>- The age of the learner</li> <li>- Nature</li> <li>- Background</li> <li>- Psychological approaches</li> <li>- From known to unknown</li> <li>- From concrete to abstract</li> <li>- From immediate surroundings to a distant environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum is the basic framework for planning the lessons and making learning possible.</li> <li>▲ To what extent does the curriculum help in the teaching/learning process in the acquisition of concepts, definition and facts concerning curriculum</li> <li>■ Analyses documents and materials on ideas, concepts and definitions related to the curriculum and prepare notes.</li> <li>■ Analyses the broader aims of the curriculum and examines if learning activities that help in acquiring them are included in the curriculum and the textbooks.</li> <li>• Understands that the curriculum has to be framed considering the age, nature and background of the learner and the psychological approaches.</li> <li>• What are the basic facts that have to be considered in curriculum construction?</li> <li>• For whom is the curriculum intended? What are their characteristics and the factors to be considered.</li> <li>▲ Discusses with the students, the basic factors for curriculum construction. Develops observation tools that are required for finding them.</li> <li>■ Using the above indicators, observe the characteristics &amp; background of children and identify the psychological principles to be followed in curriculum construction.</li> </ul>

Content	Transaction
<ul style="list-style-type: none"> <li>• Curriculum - social foundations</li> <li>- The reflection of the desired principles of the society (nation)</li> <li>- Guide to the advancement of human resource</li> <li>- Spreading of comprehensive knowledge for social progress</li> <li>- Social perspective</li> <li>- The influence of social compulsions</li> <li>- The child and the society</li> <li>- Cultural backgrounds</li> <li>- The source of energy that would transform the action in a desirable manner.</li> <li>• Various types of curriculum and the approaches to curriculum construction.</li> <li>- Linear approach</li> <li>- Spiralling approach</li> <li>- Objective - based approach</li> <li>- Process - based approach</li> <li>- Skill - based approach</li> <li>- Problem based approach</li> <li>- Inter disciplinary</li> <li>• Various types of curriculum</li> <li>- Integrated curriculum</li> <li>- Subject based curriculum</li> <li>- Activity based curriculum</li> <li>- Experience based curriculum</li> <li>- Core curriculum</li> <li>- International curriculum</li> <li>• Curriculum structure</li> <li>- Objectives</li> <li>- Content</li> <li>- Mode of transaction</li> <li>- Learning materials</li> <li>- Learning achievements</li> <li>- Evaluation</li> <li>- Period</li> </ul>	<ul style="list-style-type: none"> <li>• Recognises that curriculum reflects the needs and desires of the society.</li> <li>▲ To what extent are factors like the child, society and cultural backgrounds relevant in the framing of the curriculum?</li> <li>■ Conducts seminar on the topic 'The influence of the society in the growth and development of the child'. Attention is invited to the social foundation of the curriculum through discussions.</li> <li>■ Analyses whether the contemporary social issues are reflected in the curriculum. Compares the objectives, content and pedagogic approach to various school curricula.</li> <li>• Identifies that various perspectives and approaches such as linear approach, spiralling approach, process-based approach and issue-based approach can be followed in the formation of curriculum.</li> <li>▲ Why should there be different approaches in the formation of a curriculum?</li> <li>■ Discuss the points that have to be considered while following a particular approach in curriculum construction.</li> <li>• Identifies the important factors inherent in various curricula.</li> <li>▲ What are the factors to be considered in transacting the curriculum effectively?</li> <li>■ Examines a few curriculum documents. Discuss how the content and teaching/learning approaches should be according to the broader aims in them.</li> </ul>

Contents	Transaction
<p><b>Unit 2 : Teaching/learning approaches and teaching skills (Time : 25 hours)</b></p> <p><b>Teacher, competencies</b></p> <ul style="list-style-type: none"> <li>- Knowledge in the subject concerned</li> <li>- Awareness of psychological approaches</li> <li>- Skill in ICT</li> <li>- Expertise in the techniques of teaching</li> <li>- Awareness of the learners</li> <li>• Teaching skill <ul style="list-style-type: none"> <li>Conceptual competency</li> <li>Contextual</li> <li>Total performance competency</li> <li>Commitment</li> </ul> </li> <li>- Conceptual competency, Contextual flexibility</li> <li>- Total performance competency</li> <li>- Commitment, Presentation skill</li> <li>- Skill for explanation</li> <li>- Skill for posing questions, Good listening skills</li> <li>- Excellence in speech, Ability to guide &amp; direct</li> <li>- A continuous learner, Skill for reciting</li> <li>- Willingness for self criticism /evaluation</li> <li>• Pedagogic methods and techniques <ul style="list-style-type: none"> <li>- Project, seminar, debate</li> <li>- Group discussion, panel discussion</li> <li>- Introduction/conclusion methods</li> <li>- Humanistic methods, game methods, Enquiry method</li> <li>- Research method, discovery method</li> <li>- Narrative method, spoken method</li> <li>- Speech method, Analysis/conclusion methods</li> <li>- Problem solving methods</li> <li>- Observation, experimentation</li> </ul> </li> <li>• Teaching learning processes <ul style="list-style-type: none"> <li>- Children of various standards</li> <li>- Subject variety in learning materials</li> <li>- The mental processes of the child cognitive</li> </ul> </li> <li>• Emotional level</li> <li>• Mental channel level</li> </ul>	<ul style="list-style-type: none"> <li>• Realises that one can become an excellent teacher by having adequate knowledge in the subject ,good presentations and knowing children..</li> <li>▲ How can one become an excellent teacher?</li> <li>■ What are the qualities of the teacher who can influence students? List them. discussion on teaching skills.</li> <li>■ Develops indicators-for teaching skills. Analyses the teaching skills by using the indicator.</li> <li>■ Discusses the ways to improve oral presentations. Evaluate the findings of the peers.</li> <li>■ Finds methods to use black board and chart effectively</li> <li>■ Video analysis of classes taken by self and peers</li> <li>• Understands that there are different teaching/learning techniques</li> <li>■ Discusses various teaching methods/techniques that could be used in the teaching/ learning process</li> <li>■ Identifies various contexts of teaching/teaching techniques that fit the context.</li> <li>▲ Which are the techniques that are useful for languages and science subjects? Why?</li> <li>▲ Watches classes / video clippings of classes that help in acquiring awareness on various teaching methods.</li> <li>• Identifies that learning activities should be designed only by considering the thinking process of children of various age groups and the nature of the subject concerned with learning objects.</li> </ul>



Content	Transaction
<ul style="list-style-type: none"> <li>• Learning activities inside the classroom               <ul style="list-style-type: none"> <li>- Planning</li> <li>- Presentation</li> <li>- Participation</li> <li>- Being considerate</li> <li>- Deciding suitable learning activities</li> <li>- Continuous Evaluation</li> </ul> </li> <li>• Learning Atmosphere               <ul style="list-style-type: none"> <li>- Child friendly/Environment friendly school</li> <li>- Child Centered</li> <li>- Freedom</li> <li>- Recognition</li> <li>- Security</li> <li>- Courage</li> <li>- Child-friendly classroom</li> <li>- Learning tools</li> <li>- Teacher Interventions</li> <li>- Consideration</li> <li>- Child -friendly arrangements</li> </ul> </li> <li>• Infrastructure Facilities               <ul style="list-style-type: none"> <li>- Seating</li> <li>- Proper lighting</li> <li>- Proper ventilation</li> <li>- Cleanline (Toilet, drinking water)</li> <li>- Toys</li> <li>- Park</li> <li>- garden</li> <li>- Building as a learning aid</li> <li>- Compound wall</li> </ul> </li> <li>• Outdoor learning               <ul style="list-style-type: none"> <li>- Study tours</li> <li>- Meets</li> <li>- Home study</li> <li>- Club activities</li> <li>- Self learning</li> <li>- Observing of special days</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▲ To what extent are mental processes and classroom activities of the children important in the teaching learning process.?</li> <li>■ Visit the class and observe teacher intervention and learners' response, with the help of a tool.</li>   <li>• The learning atmosphere has a major role in making learning effective.</li>   <li>▲ Was your school child-friendly? Why do you think so?</li>   <li>■ Prepare a rating scale by formulating criteria for a child - friendly school. Find out whether the school where you studied/a school in proximity is child-friendly.</li>   <li>• Form the idea that learning becomes meaningful when all the contexts of learning other than classroom teaching are also utilized</li> <li>▲ Which are the various types of activities other than classroom learning that lead to learning?</li> <li>■ Conduct a local trip, evaluate the academic achievements gained through the trip and write a report.</li> </ul>

Content	Transaction
<ul style="list-style-type: none"> <li>• Teaching / learning materials               <ul style="list-style-type: none"> <li>- Significance</li> <li>- To instil interest</li> <li>- To give clarity of idea</li> <li>- To reinforce understanding</li> <li>- Awareness on the different materials</li> <li>- TB, HB, BB, computer, Laptop, LCD</li> <li>- Other subject- related learning tools</li> <li>- Construction / Organisation / Collection of learning tools</li> <li>- The contextual use of materials</li> <li>- Proper use of blackboard/white board</li> <li>- The application of ICT</li> <li>- Learning tool required for CWSEN (Adaptation)</li> <li>- IEP (Individualised Educational Planning)</li> </ul> </li> <li>• Lesson Plan - Approach and Organisation               <ul style="list-style-type: none"> <li>- Approach</li> <li>- Theoretical Foundation</li> <li>- Herbert's Stages</li> <li>- Theory of Benjamin Bloom</li> <li>- Plannings in connection with Gagne's understanding of ideas</li> <li>- Plan model put forward by constructivism</li> </ul> </li> </ul> <p><b>Organisation</b></p> <ul style="list-style-type: none"> <li>• The importance of Lesson Plan               <ul style="list-style-type: none"> <li>- Content</li> <li>- Transaction techniques / ways</li> <li>- Continuous Evaluation</li> <li>- The analysis and feedback on evidence for learning</li> </ul> </li> <li>• Stages of Lesson Plan               <ul style="list-style-type: none"> <li>- Annual Plan</li> </ul> </li> <li>• School Planning - For quality education</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies the importance of learning tools in instilling interest in the children and in creating clarity of ideas</li> </ul> <p>▲ What are the teaching / learning materials that could be used by students alone, teachers alone and both?</p> <p>■ Constructing low cost and zero cost learning materials</p> <ul style="list-style-type: none"> <li>• Identifies the importance of various planning approaches in the teaching /learning process</li> </ul> <ul style="list-style-type: none"> <li>• Identifies the various stages of planning that is required to carry out effective learning in the institution.</li> </ul> <p>▲ What are the stages of planning for carrying out the activities of the institution effectively?</p>

Content	Transaction
<ul style="list-style-type: none"> <li>- Unit -wise planning</li> <li>- Daily planning</li> <li>- Models of Lesson Plan</li> </ul> <ul style="list-style-type: none"> <li>• Pedagogic Analysis <ul style="list-style-type: none"> <li>- Learning Objective (Concept, Ability, Attitude)</li> <li>- Awareness of Pedagogic theories</li> <li>- Content Analysis</li> <li>- Awareness of transaction techniques</li> <li>- Organisation of ideas</li> <li>- Presentation of Ideas</li> <li>- Methods of evaluation / techniques</li> <li>- Expected learning outcomes.</li> </ul> </li> <li>• Analysis - In various subjects</li> </ul> <p><b>Unit 3 : Evaluation - Approach and Application (Time 20 hours)</b></p> <ul style="list-style-type: none"> <li>• The concept of Evaluation. (Inevitable part of the teaching /learning process)</li> <li>- Evaluation and Assessment (Similarities and Differences)</li> <li>- Assessments in daily situations</li> <li>- Assessment in learning</li> <li>- Assessment for learning (various interventions for effective learning - assessment of progress and feedback as a result)</li> <li>- Assessment as learning</li> <li>- Improves one self by realising merits and limitations.</li> <li>- Assessment of learning</li> <li>- Assessing what has been learnt during a specific period of time and writing report on that</li> </ul>	<ul style="list-style-type: none"> <li>■ The teacher makes -presentations on lesson plan. Presents various approaches. Students prepare notes referring various book and present.</li> <li>• Becomes aware of the need for analysing the content pedagogically.</li> <li>▲ How can the content be pedagogically analysed to make the learning process effective?</li> <li>• Different groups analyse a lesson and discuss what information students should gather from it.</li> <li>■ What are the techniques of transaction? How would they be recorded? Discussion/ General Consolidation</li> <li>■ Prepares lesson plans on various subjects, conceptual areas, skills and levels and hold discussions.</li> <li>• Gains the understanding that 'Assessment is a process to know how effectively learning has been carried out'.</li> <li>▲ In what ways can assessment help in making learning effective?</li> <li>■ Create opportunity to assimilate the various objectives of assessment through discussions and examples.</li> </ul>

<b>Contents</b>	<b>Transaction</b>
<ul style="list-style-type: none"> <li>• Different types of Assessment               <ul style="list-style-type: none"> <li>- Formative: Concept, process (Assessment for advancement of learning)</li> <li>- Terminal Examination</li> <li>- Concept</li> <li>- Contexts</li> <li>- Examples</li> <li>- Merits</li> <li>- Internal and External Assessment</li> <li>- Contexts</li> <li>- Processes</li> <li>- Analysis of merits /demerits</li> <li>- Continuous assessment and assessment for a fixed time</li> <li>- The concept of continuous assessment</li> <li>- The concept of interim assessment</li> <li>- Devices, techniques</li> <li>- Materials</li> <li>- Feedback</li> </ul> </li> <li>• Continuous and Comprehensive Evaluation               <ul style="list-style-type: none"> <li>- Relevance and Importance</li> <li>- Introduction to evaluation method.</li> <li>- Self Evaluation</li> <li>- Peer Evaluation</li> <li>- Activity based Evaluation (Then concept, importance, methods, techniques tools etc.)</li> </ul> </li> <li>• Devices for evaluation               <ul style="list-style-type: none"> <li>- Performance - oriented Exam</li> <li>- Acting</li> <li>- Construction</li> <li>- Demonstration</li> <li>- Drawing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Recognises the relevance and importance of continuous and comprehensive evaluation for the all round development of the child.</li>   <li>▲ What is the relevance of using different methods of evaluation in teaching /learning processes?</li>   <li>■ Analyses the teaching skill of a classmate developing a suitable evaluation tool</li> <li>■ Transacts various techniques of assessment through presentation by teachers and discussion by students.</li> <li>■ Discusses the feedback to be given to the learner at various stages of evaluation.</li> <li>■ Constructs different types of evaluation tools</li>   <li>• Becomes familiar with a variety of evaluation devices</li>   <li>▲ What are the merits/demerits of written, oral and performance-based examination?</li>   <li>▲ Why should a variety of evaluation devices be used in the learning process?</li> </ul>

Content	Transaction
<ul style="list-style-type: none"> <li>- Written Examination - Preparation of Blue print, Specification table, Achievement test (Aim, Mode of conducting, characteristics of the tool, Importance)</li> <li>- Standardised Test.</li> <li>- Teacher - constructed (Difference, Similarity)</li> <li>• Question Models <ul style="list-style-type: none"> <li>- Objective type, Multiple choice type</li> <li>- Simple Answer Type, Essay Type</li> <li>- Products of learning, Other evidences</li> </ul> </li> <li>(What should be evaluated, how, ways, techniques etc) Open book examination ) (Importance, Merits, pragmatic methods)</li> <li>• Diagnostic Tests and Remedial Teaching Concept - Finding the basic reasons for learning issues of the child) Difference with Skill Test Devices : Acquaintance, Construction Remedial activities (What and how ?.....) Recording and Reporting</li> <li>- Concept</li> <li>- Use</li> <li>- How can it be recorded?</li> <li>- Acquainting with models</li> <li>• Scoring and grading <ul style="list-style-type: none"> <li>- Concept</li> <li>- Enquiring ways</li> <li>- Acquainty with ways/Developing various models/methods</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Evaluates other students by analysing the products of learning</li> <li>■ Organises a debate on the merits/issues in written, oral and performance-based examination</li> <li>■ Arrives at the factors of Blue Print by analysing a few familiar question paper and by entering their details</li> <li>• Identifies the need to document learning outcomes.</li> <li>▲ The suitability of scoring/grading for assessing and recording learning outcomes?</li> <li>■ Grading the skills acquired by the learner related to language learning /learning of science subjects..</li> </ul>

Content	Transaction
<p><b>Unit 4 : The role of research in teaching /learning process (Time 10 hours)</b></p> <p>Research  Concept  Definition</p> <p>The uses of research.  Nature of research</p> <ul style="list-style-type: none"> <li>• Qualitative research <ul style="list-style-type: none"> <li>- Sampling</li> <li>- Small sample</li> <li>- Descriptive writing</li> <li>- Observation oriented</li> </ul> </li> <li>• Quantitative Research <ul style="list-style-type: none"> <li>- Data is converted to research variables</li> <li>- Depends on Questionnaire</li> </ul> </li> <li>• Fundamental Research <ul style="list-style-type: none"> <li>- Historical research</li> <li>- Experimental research</li> </ul> </li> <li>• Applied Research <ul style="list-style-type: none"> <li>- general idea</li> <li>-</li> </ul> </li> <li>• Educational Research <ul style="list-style-type: none"> <li>- Action Research</li> <li>- Case Study</li> <li>- Unique models of research</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Identifies that research is inevitable for carrying out effective teaching</li> </ul> <p>▲ 'The teacher should be a researcher ' -  What are the arguments that support this statement?</p> <ul style="list-style-type: none"> <li>• Identifying issues and conducting research for solving them.</li> </ul>

Contents	Transaction
<ul style="list-style-type: none"> <li>• Stages of research               <ul style="list-style-type: none"> <li>- Fixing and defining research issues</li> <li>- Methods of research and their stages</li> <li>- Review of earlier studies.</li> <li>- Selecting sample</li> <li>- Collecting data</li> <li>- Analysis and examining</li> <li>- Inference</li> <li>- Suggestions and follow-up activities</li> </ul> </li> </ul> <p><b>Unit 5 : ICT in the teaching /learning process (Time 20 Hours)</b></p> <p>ICT and Education - Historical background</p> <ul style="list-style-type: none"> <li>- The origin of ICT</li> <li>- The entry of computers               <ul style="list-style-type: none"> <li>- Software</li> <li>- Open Software</li> </ul> </li> <li>• Use of ICT in learning activities</li> <li>• ICT and the society               <ul style="list-style-type: none"> <li>- Possibilities</li> <li>- In various fields (Health, Vocation, Industrial)</li> <li>- Learning approach for familiarising ICT</li> <li>- Using finding - Visual equipment</li> <li>- With the help of computers</li> <li>- Qulive possibilities</li> <li>- E- learning</li> </ul> </li> <li>• ICT in teaching process               <ul style="list-style-type: none"> <li>- Prepare and present Presentation</li> <li>- Utilise Video clips</li> <li>- Use of Internet</li> <li>- Use of social networking</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▲ In what ways can the teacher- researcher help in the learning issues faced by students.</li> <li>■ Conduct action research and prepare a report about a learning issue faced by children.</li> </ul> <ul style="list-style-type: none"> <li>• Understands that the effective use of ICT is essential in the teaching /learning process</li> </ul> <ul style="list-style-type: none"> <li>▲ Analyse various learning approaches which use ICT</li> </ul> <ul style="list-style-type: none"> <li>• Understands the possibilities of ICT in the teaching process</li> </ul>

Contents	Transaction
<ul style="list-style-type: none"> <li>• The role of ICT in making the teachers' vocation excellent</li> <li>- Data collection utilising Internet and other modes of technology</li> <li>- Internet</li> <li>- Websites</li> <li>- Blogs</li> <li>- Wikipedia</li> <li>- Online libraries</li> <li>• Information Processing</li> <li>- Preparation of marklist</li> <li>- Grading</li> <li>- Collecting data on students</li> <li>- Preparation of ETM</li> <li>- Preparation of ETB</li> <li>- Digital portfolio</li> <li>• Transactional methods</li> <li>- (For making the students hard over information on the school to the society and other related institution)</li> <li>- Internet</li> <li>- Blogs, School Blogs</li> <li>- Social networks</li> <li>- Websites</li> <li>• Cyber Crime <ul style="list-style-type: none"> <li>- Email harassment</li> <li>- Hacking and craking</li> <li>- Misuse of internet</li> </ul> </li> <li>• Hardware</li> <li>• Software</li> <li>• Utilising video camera LCD and Digital Camera for the purpose of learning</li> <li>• Application Software</li> </ul>	<ul style="list-style-type: none"> <li>■ Conducts online discussions using social networking service</li>   <li>• Identifies the use of ICT in data collection</li> <li>▲ What are the facilities you get when ICT is made use of in data collection? Construct a page in Wikipedia related to science.</li> <li>• Understands that the skill for processing information increases teaching skill.</li>   <li>• Stores the information collected using ICT in digital portfolio</li>   <li>• Identifies that knowledge of ICT is the best way to share information on school with others.</li> <li>▲ How will you use school Blog to share news in school?</li>   <li>• Understands that expertise in ICT helps in excellence in vocation</li> <li>▲ What are the merits of utilising ICT in the teaching/learning process?</li> <li>■ Gathers data from internet on a science lesson and uses in teaching.</li> </ul>



Content	Transaction
<ul style="list-style-type: none"> <li>• The information and skills gathered through ICT is applied through concept formation and communication</li> <li>• Presentation</li> <li>• Video clipings</li> <li>• Images</li> <li>• Text files</li> <li>• Audio files</li> <li>• Internet, blogs, websites</li> </ul>	<ul style="list-style-type: none"> <li>■ Identifies that even abstract ideas can be effectively transacted with the help of audio visual indicators and through ICT</li> <li>▲ How can ICT be utilised in idea formation and transaction in the teaching/learning process</li> <li>■ Prepare an Electronic Teaching Manual by making a Lesson Plan on a Science Lesson, using ICT</li> </ul>

**പുസ്തക സൂചിക**

1. പാഠ്യപദ്ധതി സിദ്ധാന്തം - ഡോ. രവിശങ്കർ. എസ്. നായർ, കേരള ഭാഷാ ഇൻസ്റ്റിറ്റ്യൂട്ട്, 2007
2. പാഠാനുക്രമം - ഡോ. രവിശങ്കർ. എസ്. നായർ കേരള ഭാഷാ ഇൻസ്റ്റിറ്റ്യൂട്ട് 2013
3. ഉദ്ദേശ്യധിഷ്ഠിതബോധനം - ഡോ. കെ. സോമൻ, കേരള ഭാഷാ ഇൻസ്റ്റിറ്റ്യൂട്ട്
4. ആധുനിക വിദ്യാഭ്യാസപ്രക്രിയ - വികസനവും പ്രവണതകളും ഡോ. കെ. ശിവരാജൻ, കാലിക്കറ്റ് യൂണിവേഴ്സിറ്റി കോ-ഓപ്പറേറ്റീവ് പ്രസ്
5. Inservice Teacher Education Package, NCERT
6. Trends and Developments in Modern Educational Practice, ഡോ. കെ. ശിവരാജൻ, കാലിക്കറ്റ് യൂണിവേഴ്സിറ്റി കോ-ഓപ്പറേറ്റീവ് പ്രസ്സ്
7. Philosophical and Sociological basis of Education, ഡോ. എൻ.കെ. അർജുനൻ, യുഗ പബ്ലിക്കേഷൻസ്, പാലക്കാട്
8. NCFTE 2009
9. ICT, Pedagogy and the Curriculum : Avril Loveless
10. Towards a curriculum for all- The Dorchester Curriculum Group 2002
11. Continous and Comprehensive Evaluation; Teachers handbook for primary stage, Sarla Rajput 2003
12. Methodology of Educational Research, Ramnath Sarma

### 7.3.3 Mother - Tongue Learning

The paper 'Malayalam- History, Structure and Social Background' is suggested in the first semester for the student teacher learning the mother tongue. Details are given below.

#### Rationale

The learning of mother tongue has immense importance in teacher education. All student teachers must have the expertise to use the mother tongue as a medium of instruction fluently. Adequate understanding of the pedagogy and the content to use Malayalam language and literature in primary-upper primary classes should be ensured. Keeping this in mind the Malayalam curriculum in teacher education has been framed. In the course comprising four semesters, one paper is suggested for each semester.

Language proficiency plays an important role in making classroom transaction effective. The teachers must have higher levels of language proficiency to trigger classroom activities by way of clarifications, attracting attention, promoting thinking through appropriate questions, providing accurate instructions etc. The proper use of language will also enforce establishing a healthy relationship between students and society. Thought and language are mutually related. Only teachers who are able to comprehend the concept levels and the messages convey by analyzing lessons can take forward learning through reflective thinking. Dealing with language as a are of study demands deep knowledge of the language. The student teacher should have the opportunity to comprehend the features of language at the phonetic- morphological-syntactical-semantic levels insightfully. Language learning can be made effective through an aware-

ness of the history of literature, literacy imagination, critical thinking etc. Language learning becomes more meaningful by gaining skills in planning instruction with the help of modern technology.

The curriculum is systematized with a view to equipping student teachers analyze language lessons based on the foundations of psychology, pedagogy and educational philosophy, planning and various evaluating at the appropriate time.

#### Objectives

- To understand the folk tradition of Kerala
- To identify the rhythm, expression, etc of short poems in language
- To appreciate children's stories, analyse them and identify the theme, values, narrative style etc.
- To introduce the relation between performing arts and literature in a general way
- To analyse and grasp the characteristics on the basis of theme, rhythm, literary history, style, value consciousness etc. reflected in poetic movements like gatha, kilippattu and thullal
- To familiarize with poets and poems in Malayalam of different periods
- To analyse Renaissance/modern stories on the basis of theme, narrative style, characterization etc.
- To analyse prose forms like descriptions, narration, appreciation, criticism, evaluation, studies on the basis of narrative style, mode of approach, form and structure, peculiarities of style etc.

- To understand the family characteristics of the Malayalam language
- To understand linguistic characteristics related to phonetics
- To analyse the syntax of the language and understand the rules
- To understand and identify the sound structure of language
- To identify and analyse the formal usages of language from real life situations and improve communication skills
- To identify the aesthetics of language varieties.
- To analyse processes like language acquisition, language expression etc. and learning techniques
- To plan and execute learning activities on the basis of holistic view of language, critical pedagogy etc.
- To identify the possibilities of the integrated approach
- To gain expertise in using ICT possibilities in transaction of language curriculum
- To analyse the language of the media like newspaper, radio and television on the basis of content, social perspective thematic presentation etc.
- To analyse documentaries, short films, and identify symbolic systems of language, visual language, etc.
- To analyse aspects like ornamental aesthetics, dhvani etc. on the basis of semantic system of language
- To study the scientific literature of the Malayalam language, identify linguistic features and engage in creative writing and use them in teaching
- To prepare critical notes after reading and discussing literary texts
- To examine & consolidate ideas on the language curriculum.
- To identify the concept of Language across Curriculum
- To gain skills in providing adaptation activities for Children with Special Education Needs
- To prepare and evaluate annual, comprehensive and daily plan helpful for the transaction of the language curriculum
- To develop on understanding of Malayalam computing as related to language study
- To develop continuous and comprehensive evaluation techniques and devices and improving them and planning follow-up activities

<b>S<sub>1</sub>.P<sub>3</sub></b>	<b>Malayalam-History, structure and Serial background</b>
<p><b>Total Score : 80</b>  <b>(Continuous Evaluation (CE) 20 + Terminal Examination (TE) 60)</b></p> <p><b>Total time for a Semester : 100 hrs.</b>  <b>Time for one week : 5 hrs.</b></p>	

### Contents

- Unit 1 : History of language (Time:30 hrs)**
- Unit 2 : Language structure (Time:40 hrs)**
- Unit 3 : Dialects of Malayalam (Time:30 hrs)**

S<sub>1</sub>, P<sub>3</sub> Malayalam-history, Structure, Social Background-unit Details

Content area	Method of transaction
<p><b>Unit 1 History Of Language (Time 30 hrs)</b></p> <ul style="list-style-type: none"> <li>• Language families</li> <li>• Dravidian family-general characteristics</li> <li>• Other languages in the family-their mutual relations</li> <li>• The antiquity and heritage of the language (general idea)</li> </ul> <p>Some stages in the evolution</p> <ul style="list-style-type: none"> <li>- Inscriptions</li> <li>- Manipravalam</li> <li>- Paattuprasthanam</li> <li>- Paathiri Malayalam</li> </ul> <p><b>Unit 2 Structure Of Language (Time 40 Hrs)</b></p> <ul style="list-style-type: none"> <li>• Phonetic structure-organs of speech-points of articulation-manner of articulation-the disabilities and solutions related to articulation</li> <li>• Morphological structure, word classes, the processes of word formation (sandhi, samaasam)</li> <li>• Sentence structure: case system, verb-related syntactic structure (tense, aspect) adjectives-different sentence types /structures</li> </ul> <p><b>Unit 3 Dialects In Malayalam (Time 30 Hrs)</b></p> <ul style="list-style-type: none"> <li>• Variants in the language geographic and social-features of pronunciation and vocabulary in the dialects</li> <li>• Mixed Language - Arabi Malayalam loan words-customary language-salutations-formal usages in language</li> <li>• Written language and spoken language</li> <li>• The concept of standard language</li> <li>• The scope and limitations of Malayalam in the transaction of Science and Technology</li> </ul>	<ul style="list-style-type: none"> <li>• The presentation of family characteristics and evolutionary history etc. of Malayalam language.</li> <li>• To analyze the models of articulation and identify the varieties in the manner of articulation</li> <li>• To form practical suggestions to correct the defects in articulation</li> <li>• To examine the notebooks of learners at the primary level and find out the linguistic and grammatical issues and draw conclusions.</li> <li>• To analyse words in the content into root and affix and explain the function of affixes</li> <li>• To analyze the sentences in newspapers and classify the sub-sentences in them and explain different types of sentence structure</li> <li>• To analyse the dialects in literary texts.</li> <li>• To record informal conversations of the student teacher and learners during the teaching sessions and analyze them</li> <li>• To analyze elocution, discussion etc. of the student teacher</li> <li>• To analyze the scope of dialects in classroom transaction</li> <li>• To discuss and consolidate the approaches and attitudes to be adopted by the teacher in a class of students with different dialects</li> <li>• To examine the works that handle Science and Technology and find the linguistic features</li> <li>• To find the potential and limitations of the language in handling scientific and technological subjects.</li> <li>• To analyze the features of vocabulary in the language.</li> </ul>

### പുസ്തക സൂചിക

1. മാതൃഭാഷാബോധനം പ്രൈമറി ക്ലാസുകളിൽ -നീലംപേരൂർ രാമകൃഷ്ണൻ നായർ
2. ഭാഷാ കേളി -ടി.കെ. അച്യുതൻ
3. ഭാഷാസമഗ്രതാദർശനം - ഇരിഞ്ചയം രവി
4. സാഹിത്യപീഠിക -പ്രൊഫ. മാത്യു ഉലകംതറ
5. മലയാളഭാഷാധ്യാപനം -കൈനിക്കര കുമാരപിള്ള
6. വായന -ഇരിഞ്ചയം രവി
7. വാക്യദർശനം - ഡോ. രവിശങ്കർ.എസ്. നായർ
8. എഴുത്തിന്റെ വഴി - ഇരിഞ്ചയം രവി
9. ഭാഷാഭ്യസനത്തിന് ഒരു ഭൂമിക - ഇരിഞ്ചയം രവി
10. സാഹിത്യവിദ്യ - കുട്ടിക്കൃഷ്ണമാരാർ
11. മലയാള ശൈലി - കുട്ടിക്കൃഷ്ണമാരാർ
12. Body language (ശരീര ഭാഷ) - Dr Richard Seril
13. പുതുമഴ - എസ്.എസ്.എ. പാലക്കാട് വിദ്യാരംഗം കലാസാഹിത്യവേദി
14. ശൈലീനിലണ്ടു - ടി. രാമലിംഗം പിള്ള
15. ചെറുകഥ - ഇന്നലെ, ഇന്ന് -എം. അച്യുതൻ
16. സാഹിത്യ ചരിത്രം - പ്രസ്ഥാനങ്ങളിലൂടെ, എഡിറ്റർ - ഡോ.കെ.എം. ജോർജ്ജ്
17. കൈരളിയുടെ കഥ- എൻ. കൃഷ്ണപിള്ള
18. കേരള പാണിനീയം, ഭാഷാഭൂഷണം, വൃത്തമഞ്ജരി- എ.ആർ. രാജരാജവർമ്മ
19. മലയാള ബോധനം - ഡോ.പി.കെ. ചന്ദ്രശേഖരൻ നായർ
20. ഫോക്ലോർ ചിന്തകൾ - ഡോ. എം.വി. വിഷ്ണു നമ്പൂതിരി
21. കേരള ചരിത്ര നിലണ്ടു - എസ്.കെ. വസന്തൻ
22. സംയോജിത വിദ്യാഭ്യാസ പദ്ധതി - ഡി.പി.ഐ. കേരള സർക്കാർ
23. ഭാഷാശാസ്ത്രപ്രവേശിക - ഡോ. ഇ.വി.എൻ. നമ്പൂതിരി, കേരള സർവകലാശാല
24. ഉച്ചാരണം നന്നാവാൻ - ഡോ.വി.ആർ. പ്രബോധചന്ദ്രൻ നായർ

### 7.3.4 English Language Education

As a part of English Language Education, in Semester 1, the paper 'Proficiency in English Language' is suggested for learning. The details are given below.

#### Rationale

Student-teachers need to gain good mastery over the English language and its pedagogy if they have to become good teachers. This course is designed keeping in mind the crucial role of the language in making an individual a better thinker and an effective communicator. There are occasions our teachers feel incapacitated because of their poor repertoire in the English language. Hence conscious efforts need to be taken to make the student teachers proficient users of the language. Creating confident teachers is the first step toward professionalizing the teachers of the state. The purpose of this course is to impart in-depth knowledge and proficiency in the English language to the student-teachers and also to develop their knowledge about language and its pedagogic implications.

The course is also intended to help the student teachers develop critical awareness about approaches, methods, principles and assessment practices of language learning. It also envisions engaging the student teachers in reflective practices so as to help them evaluate/improve their own classroom teaching and become more effective teachers of English and it is intended to provide the student-teachers the flexibility to create supportive environment which encourages their learners to experiment with language learning. The course also focus on developing deep understanding of second language acquisition.

#### Objectives

- To develop the language skills and knowledge of the student teachers to make them use English fluently and accurately
- To enhance the student teachers' knowledge about the language such as syntax, morphology, lexis, phonology and different language discourses to make them confident and proficient users of English
- To equip student teachers with theoretical and pedagogic perspectives on English as a second language
- To develop critical awareness of approaches, methods and principles of language learning/acquisition in the student teachers.
- To make the student teachers familiarize with aspects of effective classroom management, procedures and strategies for teaching English
- To provide hands on experience in developing unit and lesson planning for effective teaching of English
- To develop or make use of resources and materials for teaching and assessing young learners
- To analyze issues in language assessment practices and their impact on classroom teaching learning process
- To enable the student teachers to develop professional competence

<b>Paper No.</b>	<b>Name of Paper</b>
<b>S<sub>1</sub>.P<sub>4</sub></b>	<b>Proficiency in English Language</b>
<b>Total Score</b>	<b>: 20 (CE only)</b>
<b>Total Semester time</b>	<b>: 85 hrs.</b>
<b>Time in one week</b>	<b>: 4 hrs.</b>

### **Content**

- Unit 1 (Time 40 hrs.) :** Nature of Language
- Unit 2 (Time 45 hrs.) :** Learner Proficiency and Language Competence



S<sub>1</sub>. P<sub>4</sub> Proficiency in English Language - Content details

Content area	Method of transaction
<p><b>Unit 1 (40 hrs.) : Nature of Language</b>  <b>a) First language, Second language, and Foreign language</b>  <b>Sub topics</b></p> <p>The concept of mother tongue, first, second and foreign language            First Language/ Mother Tongue as the language of identity and culture - cases where first language is not the mother tongue - first language and second language acquisition: similarities and differences -English language teaching in Kerala and national context</p> <p><b>b) Language and Thought</b>  <b>Sub topics</b>            The complementary nature of language and thought - generating thought is the key to developing language - thought as competence and language production as performance - the silent period in young learners</p> <p><b>c) Multilingualism</b>  <b>Sub topics</b>            Mother tongue and other tongues not as interference but as rich resources - use of mother tongue in English language classroom - code switching as an effective strategy to teach very young learners - the myth of lack of speech community a hindrance to learn a second language - the concept of comprehensible input - errors in inter-language period to be tolerated as they indicate learners own generalization of the language being learned</p>	<ul style="list-style-type: none"> <li>• This paper aims at a holistic development of English language proficiency of the student teachers. There are two components in this paper . 'Nature of Language' and 'Learner Proficiency and Language Competence'. The activities and tasks in this paper are intended to enable the learners to be competent in English language. The sub units of both the components shall not be treated in isolation instead they will be integrated with different strategies to make the student teachers effective communicators in English. The teaching learning methods detailed here are not prescriptive but suggestive in nature and an innovative teacher educator can always think of better options to present the ideas. It should be born in mind that the focus of teacher education programme at the elementary level is more on classroom practice than on pure theory.</li> <li>• Presentation of a case by the teacher educator where first language is not the mother tongue followed by a plenary discussion- Student teachers reflect on the ways in which they have learned their mother tongue and English in terms of need, learning process and scope of improvement followed by group presentations. Student teachers record what they have learned in their reflective journals.</li> <li>• A case about the language of deaf and dumb is presented followed by group discussion and presentation. Student teachers are asked to prepare a write-up on 'how the young learners' thinking be triggered in English language classroom.'</li> <li>• Student teachers simulate a simple story to the learners of class 1 - Teacher educator initiates a discussion by asking questions on the quantum of English and mother tongue used in introducing and narrating the story            Video clipping of an actual classroom by a teacher of class 1 is shown - student teachers are asked to prepare a write-up on the use of mother tongue as a resource in teaching English to very young learners</li> </ul>

Content area	Method of transaction
<p><b>Unit 2 : (Time 45 hrs)</b>  <b>Learner Proficiency and Language Competence</b>  <b>a) Listening and Comprehending Different Texts</b>  <b>Subtopics</b>  The different listening experiences to be given to learners such as instructions, announcements, speeches conversations, radio, TV news, poems, songs etc. - responding to listening texts - designing listening tasks - teaching listening - activities for integrating listening and speaking</p>	<p>Student teachers are asked to reflect on how they are going to narrate simple stories to very young learners - let the student teachers collect 5 to 10 stories, appropriate to the level of elementary learners and substantiate why they suggest a particular story to a particular class - the student teachers simulate the stories (or go to a lab school and narrate the stories.) - Teacher educator consolidates the discussion by highlighting the indicators for assessing the effectiveness of the presentation of the narrative - Teacher educator consolidates the discussion by highlighting the importance of comprehensible input and the need to create acquisition rich environment in the classroom- screens the video in You Tube by Stephen Krashen on comprehensible input (<a href="https://www.youtube.com/watch?v=VjAHP11ACmQ">https://www.youtube.com/watch?v=VjAHP11ACmQ</a>)  Let the student teachers record conversations they make with elementary school children using a mobile phone and write the children's responses in verbatim on chart papers - The teacher educator initiates a discussion on the errors found in them and ask the student teachers to categorize the errors and analyse them</p> <ul style="list-style-type: none"> <li>• Teacher educator presents a few great speeches in English and a few popular English songs by different bands - let the groups present the problems they face in listening and comprehending authentic audio texts.  Teacher educator designs post listening tasks such as listen and predict, listen and identify the main ideas, listen and analyse etc. using varied audio texts such as recitations, radio plays, commentaries etc.  Student teachers collect as well as construct different listening texts and design post listening tasks that are integrated with speaking and try them out in the lab schools or simulate them in peer groups. Student teachers review the role of the teacher during pre- listening, while-listening and post-listening stages.</li> </ul>

Content area	Method of transaction
<p><b>b) Teacher talk</b></p> <p><b>Subtopics</b>  Generating discussion, asking questions, eliciting response, giving instructions, giving feedback, engaging in informal talk with learners - Strategies to make teacher talk comprehensible:</p> <p>prosodic features -</p> <p>Phonetic symbols, - transcription minimal pairs- intonation - stress, syllables pause, tone, rhythm and pitch Paralinguistic features - facial expression, eye contact, body language, posture - Organizing listening and speaking activities like presentation, storytelling, drama, choreography, discussion, speech etc.</p>	<ul style="list-style-type: none"> <li>• Teacher educator presents video clipping of a couple of elementary English classes or takes student teachers to actual classroom contexts and asks them to analyze various components of teacher talk based on indicators developed through a whole class discussion to evaluate the quality of the talk in terms of pedagogy and language accuracy, variety and appropriacy.  Student teachers simulate simple classroom activities and reflect on their talk in terms of the above indicators on their own and by taking feedback from peers  Teacher educator distributes worksheets developed by him/her which contain samples of instructions, feedback given by teachers, questions asked by teachers etc. and ask student teachers refine them pedagogically and linguistically  A theatre workshop for atleast three days can be attempted to familiarize student teachers with classroom theatre, choreography, radio drama, story telling, speech etc. The service of theatre experts can be made use of for this.  Opportunities for listening to good speeches (from the website TED INDIA <a href="http://www.ted.com">http://www.ted.com</a>) can be provided and student teachers are encouraged to take part in lot of speaking activities like extempore speech, one minute speech, pick and talk, panel discussion, group discussion, debate etc. throughout the period of the D. Ed course  Student teachers simulate activities for developing speaking skills and reflect on their speaking ability based on indicators</li> <li>o Teacher educator distributes a list of commonly mispronounced words, words which have no correspondence between spelling and pronunciation and words which have different pronunciation for noun, verb and adjective. A discussion is initiated on how defective pronunciation hinders comprehension. Student teachers record disussion points in their reflective journals.  Student teachers compare the letter- sound relationship in Malayalam and English. They to list the letters/letter clusters that indicate a particular sound. The sounds are then asked to be categorized.  Teacher educator introduces the phonetic symbols (IPA)- Student teachers are asked to prepare a listof minimal pairs, list phrases/sentences with assonance and alliteration etc.- Dictionary referencing (using a talking dictionary) is assigned to make a list of words often mispronounced-Activities like looking at the transcription and saying the word and reading/listening to the word and transcribing etc. are given.  Discussion on connected speech and prosodic features namely stress, syllables, pause, intonation and pitch - student teachers listen to different texts of connected speech - they engage themselves in reader's theatre and radio drama activities and self-assess and peer assess the presentations.</li> </ul>

Content area	Method of transaction
<p><b>c) Reading</b>  <b>Subtopics</b>  Reading for comprehension and types of reading - Analytical and critical reading of different language discourses - Micro process of reading - Teaching reading to young learners - Addressing multilevel learners</p> <p><b>d) Improving writing skills</b>  <b>Subtopics</b>  Experiencing the process of writing, brainstorming, drafting, modifying, revising, editing - Identifying features of a paragraph: topic sentence, organization of ideas, cohesive devices and coherence - Experiencing writing different language discourses and identifying discourse features -</p>	<ul style="list-style-type: none"> <li>Teacher educator distributes different texts such as stories, articles, poems etc. and facilitates reading for comprehension, appreciation, personal response, going beyond the text and critical interpretation.  Student teachers visit lab school/ watch video clippings of processing reading in elementary English classroom and analyse the reading process in terms of pre-reading, while reading and post reading activities - reviews the comprehension questions given along with the reading texts - categorize analytical questions that promote higher order thinking skills such as prediction, relating to one's own experiences, establishing cause effect relationship, comparing and contrasting ideas/things, expressing author's purpose evaluating one's views etc.  Student teachers analyze different reading tasks in textbooks at elementary level and prepare a critical write-up on the processes of reading.  Student teachers analyze the reading activities given along with poems in the textbooks and compare and contrast the processes of reading and prepare a write-up on 'process of reading prose and poetry'  Student teachers make presentation about the integration of reading and writing tasks as seen in different textbooks at the elementary level  Student teachers prepare at least 10 reading cards suitable for elementary classes using simple stories, pictures and write-ups/captions/dialogues developed by them and simulate them and reflect on the pre-reading, while-reading and post-reading tasks they have developed based on indicators  Student teacher prepare critical write up on the methods of teaching reading to the young learners and try them out. After the tryout, they are encouraged to record their reflections in the reflective journal.</li> <li>Student teachers analyse the elementary level English textbooks and make a list of all the different language discourses presented in them as reading texts and writing tasks  Student teachers develop indicators for assessing different discourses with the help of the teacher educator and simulate writing tasks covering all major language discourses integrating with reading tasks</li> </ul>

Content area	Method of transaction
<p>Teaching writing: verbal and visual inputs, controlled, guided and free writing - Mechanics of writing: capitalization and punctuation</p>	<p>Student teachers attempt each writing task as personal responses to reading and then in groups modify, revise and edit them based on the indicators- groups present the discourses and peers assess them - teacher educator attempts a whole class editing process of the best presentation. Selecting the best presentation.</p> <p>Teacher educator makes a presentation on features of a paragraph - distributes worksheets for the student teachers to identify topic sentence and cohesive devices</p> <p>Student teachers collect samples of different language discourses constructed by elementary level learners and analyze them sequentially i.e. from very young learners' writing to class eight learners' writing and categorize the problems they find in the writing of the learners in areas of capitalization and punctuation, syntax, morphology and spelling mechanics of writing etc.</p> <p>Student teachers prepare a write-up on 'issues in writing at the elementary level learners of English and ways to overcome them'.</p> <p>Student teachers are asked to develop writing tasks with texts/pictures supplied to them</p>

### Suggested Reading

Miles Turnbull, Jennifer Dailey-O'Cain:

First Language Use in Second and Foreign Language Learning ([http://www.amazon.com/Language-Second-Foreign-Learning-Acquisition/dp/1847691951#reader\\_1847691951](http://www.amazon.com/Language-Second-Foreign-Learning-Acquisition/dp/1847691951#reader_1847691951))

Lev S. Vygotsky: Thought and Language

([http://www.amazon.co.uk/Thought-Language-Lev-S-Vygotsky/dp/0262720108#reader\\_0262720108](http://www.amazon.co.uk/Thought-Language-Lev-S-Vygotsky/dp/0262720108#reader_0262720108))

NCF 2005, Position Paper English

Grabe William Reading in a second language, Moving from theory to practice.

Cambridge publishers, 2008.

### 7.3.5 Teaching of Environmental Studies

In order to lay a foundation for the teaching of environmental studies in the student-teachers, the paper 'environment - a textbook' is suggested for learning in the 1st semester. The details are given below:

#### Rationale

The environment and nature that surrounds a child serves as a great textbook. He/She would be curious and eager to know about anything in his/her surroundings. The child who looks at the world around him with wonder learns about his environment by seeing, hearing, feelings, smelling and tasting. As he learns concepts from his environment, he also develops fundamental process skills like observation, classification, measuring, transaction of ideas, forming conclusions, predictions etc. He also acquires integration skills to conduct simple experiments along with this. From this he develops the environment friendly attitude to love, nurture and conserve/protect the environment. He learns to love fellow beings, flora and fauna around him. He gets to learn more about his home, family and place. Every teacher must equip himself/herself to lead all the children at the primary level to this aim. The student-teacher must be provided the knowledge and experience to help attain this. The first two semesters of the D.Ed course is designed to provide the above skills and proficiency to the student teachers.

#### Objectives

The student-teachers should acquire various skills in order to identify the meaning, extent and importance of environmental studies and to excel in the teaching of environment. These are given below.

- To form an awareness of the objectives and approach to the study of environment.

- To acquire awareness, skills, attitudes, values, social skills necessary to faster teaching skills considering the integrative nature of environment study and nature of the learner.
- Identifies the immense scope of environmental studies and gains teaching skills necessary to form concepts, process skills and environment friendly attitude in the children through the environment for environment and with the aim of learning about the environment.
- To analyze the influence of surroundings and nature in the developing stages of the child on the basis of psychological theories and to gain efficiency to form and use teaching with learning techniques accordingly
- To become familiar with the environment study curriculum up to class five and understand the peculiarities of the curriculum (integration, spiralling)
- To get a comprehensive awareness about the concepts, awareness, social/life skills and attitudes that students till 5th standard should get by analysing the environment all study textbook.
- To become efficient in annual planning, pedagogic analysis, daily planning by analysing the environmental study curriculum.
- To attain proficiency to find and develop learning devices in order to make the study of environment enjoyable/appreciable and meaningful.
- To plan classes suitable for effective learning and to provide learning experiences and evaluate them.
- To get a comprehensive awareness on the evaluation, approach, application, evaluation method, items, and grading in environmental studies.

<b>Paper No.</b>	<b>Name of the paper</b>
<b>S<sub>1</sub>.P<sub>5</sub></b>	<b>Environment - A Textbook</b>
<b>Total Score</b>	<b>: 20 (CE only)</b>
<b>Total Semester time</b>	<b>: 65 hrs.</b>
<b>Time in one week</b>	<b>: 3 hrs.</b>

## Preface

Environment study can generally be defined as learning about the environment, through the environment and for the environment. A growing child interacts most by with his environment. The development of knowledge takes place in the child when he gets to know his surroundings through his five senses. A child must be able to enjoy the beauty and variety of his environment. Along with forming concepts about his environment, he must also be able to develop process skills like observation, classification, measuring, communication, prediction, form conclusions etc. When the child involves himself/herself in projects and simple experiments, he/she develops various integration skills. This develops a friendly attitude in the child to love his/her environment and maintain it with all its uniqueness. .One must be able to understand that, for the existence of mankind the existence of environment is also necessary. Thus the teaching of Environmental Studies must be made enjoyable by understanding the influence of surroundings and nature in the developmental phases of a child. The student teacher should be provided the knowledge and experience to help attain this. The student teacher must be able to execute effectively learning techniques like observation, simple project, collection, simple experiments, production, outdoor learning etc., based on the

child's nature. The concepts in environmental study, experiences and teaching skills that the student teacher should acquire during the first two semesters in the D.Ed course are included in the curriculum. The curriculum must be made meaningful by ensuring the active participation of student teachers and find out more activities to develop the desired skills.

## CONTENT

Unit:1 Environment study-Meaning and depth

Unit :2 Environment- A Textbook (Time; 25 hrs)

Unit 3: Environment study curriculum-  
Approach (Time 15 hrs)

Content	Transaction
<p><b>Unit- 1: Environment Study-meaning And Scope (25 hrs)</b></p> <p>1.1 Environment Study- Levels</p> <ul style="list-style-type: none"> <li>• About the environment</li> <li>• Through the environment</li> <li>• For the environment</li> </ul> <p>1.2 Environmental Studies-the Phases of Development</p> <ul style="list-style-type: none"> <li>• Science, social science, environment science as separate branches</li> <li>• Environmental study- in the integrated perspective</li> </ul> <p>1.3 Surroundings and the Environment</p> <ul style="list-style-type: none"> <li>• Natural environment Solar system, natural resources, phenomenon</li> <li>• Manmade environment House, vehicles, clothes, ...</li> <li>• Social environment Language, rituals, festivals, culture.</li> <li>• Immediate environment</li> <li>• What is environment? The correlation between beings and surroundings</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies the nature, meaning, scope and the different levels of environmental study, to assimilate the importance of environment study.</li> <li>• Observation-finds and records the ecosystem ,food relations, food chain, food web In the campus</li> <li>• Finds out the factors that maintain the ecosystem. Conducts discussions after observing and recording them.</li> <li>• What are the concepts that you understood about environment?</li> <li>• How did you get the information?</li> <li>• What is the need for maintaining the ecosystem?</li> <li>• What are the preparations a teacher should make when such a learning activity is done in class?</li> <li>• The role of the textbook for environment study is established through analysis.</li> <li>• Prepares analytical notes based on textbooks in science social science and environmental science of the primary level from previous years.</li> <li>• Learning becomes more effective when the environment study text becomes integrated. Analyse this statement.</li> <li>• The interrelation between natural environment, manmade environment and social environment is analysed and the significance and importance of factors of each of the above is found out</li> <li>• A group discussion is conducted in class on surroundings, environment etc. prepares a concept map/Venn diagram of the environment.</li> <li>• Finds the interrelation of environmental factors, various factors and expands the concept map.</li> <li>• How does manmade environment influence nature and society?</li> <li>• What repercussions do the interference of man make in the natural environment?</li> <li>• Find out the problems that arise in the natural environment (e-waste, nuclear waste) due to the development of manmade environment (eg: increase of vehicles, residential complex, industries)</li> </ul>



Content	Transaction
<p>1.4 My environment</p> <ul style="list-style-type: none"> <li>• My surroundings</li> <li>• Home, family, society</li> <li>• To know the village (history, festivals etc.)</li> <li>• To know your native place-culture, history, resources, agriculture etc</li> <li>• Fellow beings-human - relationships</li> <li>• Flora-fauna, insects, plants, trees etc</li> <li>• Natural resources</li> <li>• To enjoy the variety in nature, to conserve</li> <li>• To love, maintain and conserve</li> <li>• To analyse the problems faced by the environment ,to intervene in the problems, to take a stand, to solve problem.</li> </ul> <p>• To get into issues faced by the society, to respond to them.</p> <p>• To understand one's rights and carry them out</p> <p>1.5 Environment- friendly attitude</p> <ul style="list-style-type: none"> <li>• the need to conserve the environment</li> <li>• the role of environment in the development of mankind</li> <li>• the influence of environment in the making of an individual</li> <li>• the readiness and attitude to take part in the environment protection activities</li> <li>• me and my environment</li> </ul>	<ul style="list-style-type: none"> <li>• The relation between man and social environment is necessary for the existence of the environment. Evaluate this statement</li> <li>• Prepares (interview, observation, reference) the regional map (including the living beings)</li> <li>• Which are the concepts included in the Regional Resource Map?</li> <li>• How can the regional map be used in the environment learning class?</li> <li>• Finds out a regional environment problem (water shortage, infectious diseases). Finds out the situations/reasons, solutions, awareness programmes (simple project)</li> </ul> <p>Regional map, project, follow up activities can be evaluated.</p> <ul style="list-style-type: none"> <li>• What are things we should pay attention to inorder to maintain the uniqueness of the regional environment?</li> <li>• Finds out analyses environment problems. Presents the suggestion for problem solving. Takes part in the problem solving activities.</li> <li>• Shows the clippings on environment problems for discussion.</li> <li>• How can development be made possible by protecting the living environment and social environment?</li> <li>• What are the activities that can be taken up to inculcate an environment friendly attitude in students?</li> <li>• Prepares awareness tools on the importance of conservation of environment.</li> </ul>

Content	Transaction
<p><b>UNIT 2: Environment- A Textbook (Time: 25 Hrs)</b></p> <p>2.1 Environmental Studies- in various psychological perspectives</p> <ul style="list-style-type: none"> <li>• Piaget, Bruner, Asubel, Vygotsky</li> </ul> <p>2.2 Making use of the child's nature for Environmental Studies</p> <ul style="list-style-type: none"> <li>• Investigative</li> <li>• Inquisitiveness</li> <li>• Aesthetic sense</li> <li>• The ability to ask questions</li> <li>• The ability to assume</li> <li>• To ability to form conclusions</li> </ul> <p>2.3. Teaching of environmental studies- based on Social constructivism</p> <p>Knowledge making process</p> <ul style="list-style-type: none"> <li>• Problem presentation</li> </ul> <p>Makes use of various techniques (including ICT)</p> <ul style="list-style-type: none"> <li>• Problem analysis</li> </ul> <p>Ask appropriate questions Deeper analysis of questions Encouraging the weak students Developing the process skills</p> <ul style="list-style-type: none"> <li>• Problem solving</li> </ul> <p>Various possibilities Lateral thinking Logical Reasoning Sharing of problem solving method Discussion of merits, limitations</p> <ul style="list-style-type: none"> <li>• Reporting</li> </ul> <p>Sharing of problem solving method Discussion of merits, limitations</p>	<ul style="list-style-type: none"> <li>• Analyses various psychological views on the nature of the child and develops an idea about the features that can be made use of environmental studies (cross reference with psychology)</li> <li>• Observes classes 1, 3, 5 and notes down how the teachers take into consideration 'the nature of the child' in various situation.</li> <li>• What characteristics in the student can be made use of in Environmental Studies?</li> <li>• Experiments/activities that may be used</li> </ul> <p>Example:</p> <ul style="list-style-type: none"> <li>• Which is denser, coconut oil or groundnut oil?</li> <li>• Which vapourises faster, petrol or diesel?</li> <li>• How can the age of tree be calculated?</li> <li>• Soil pollution- survey</li> </ul> <p>Analysing knowledge making process in the activities done-Discussion</p> <ul style="list-style-type: none"> <li>• What are things to be kept in mind while planning and executing the activities including knowledge making processes in environmental studies?</li> </ul> <p>Experimental notes/reports can be considered for assessment.</p>

Content	Transaction
<p>Environmental Studies for Sustainable .Development</p> <ul style="list-style-type: none"> <li>• Sustainable development- perspective</li> <li>• Utilisation of modern techniques</li> <li>• Food -health-education-occupation-home for everyone</li> <li>• Using of natural resources only for necessity by conserving nature</li> <li>• judicious utilisation of resources</li> <li>• Depending on new and scientific methods for production, conservation and distribution of agricultural products</li> <li>• Solving environmental problems like pollution</li> </ul> <p><b>Unit - 3: Environmental Studies Curriculum- Approach (15 hrs)</b></p> <p><b>3.1 Aims Of Learning Environmental Studies, Objectives (5 Areas)</b></p> <ul style="list-style-type: none"> <li>• Knowledge area: words, articles, concepts,.....</li> <li>• Process skills-observation, classification, prediction, to involve in simple experiments</li> <li>• Application area</li> <li>• Values, attitudes</li> <li>• Aesthetic sense</li> </ul> <p><b>3.2 Integrated Approach To Environmental Studies</b></p> <ul style="list-style-type: none"> <li>• Why integration? Pedagogic basis.</li> <li>• Integration of science, social science</li> <li>• Integration of subjects or areas like arts-sports, work experience, value education (cleanliness, food habits,...) life skills etc</li> </ul>	<ul style="list-style-type: none"> <li>• Seminar 'Sustainable Development - for human well-being and sustenance of nature'</li> <li>• How can development be made possible by making use of modern techniques ensuring protection of nature?</li> <li>• Seminar to be assessed</li> <li>• The sustainable development of India, especially Kerala is based on its agricultural production'. Assess this statement.</li> <li>• Identifies the objectives of environmental studies and acquires conceptual ideas and life skills for effective teaching of environmental studies.</li> <li>• Testing the pollutants in the water collected from various water sources (hand lens, torch, test tube)</li> <li>• Which are the concepts and process skills attained during the experiment?</li> <li>• Which is the follow up activity will you take up after participating in this experiment?</li> <li>• To conduct simple experiments on water purification</li> <li>• Which are the 5 areas that include the objectives of environmental studies?</li> <li>• Suggest certain activities that can be taken up by students to attain the objectives of environmental studies</li> <li>• Experiment - can be assessed</li> <li>• Identifies the integrative nature of environmental studies. Prepares learning activities including the integration possibilities</li> <li>• Content analysis: analyse the area 'Habitat' and finds the integrated subjects in it. Prepares a booklet on 'Habitat'</li> <li>• Finds out other content area/concepts which express integrative nature of environmental studies</li> <li>• Are the elements of value education included in Environmental Studies?</li> <li>• How is Environmental Studies useful for development of life skills?</li> </ul>

## S<sub>1</sub>.P<sub>5</sub> Environment - A Textbook : Items for assessment

	Unit	Items For Assessment
1.	<b>Environmental Studies-meaning And Scope</b>	
1.1	Environmental studies- levels	
1.2	The branch of Environmental Studies-stages of its growth	
1.3	Surroundings, environment	1.3 Concept map/Venn diagram of environment
1.4	My surroundings	1.4 Map of regional resources
1.5	Environment friendly attitude	1.5 Methods for awareness
2.	<b>Environment -a Textbook</b>	
2.1	Environmental Studies in the perspectives of various psychological theories	
2.2	Utilisation of children's nature in Environmental Studies	
2.3	Teaching of Environmental Studies- based on Social Constructivism	2.3 Experimental notes, Reports
2.4	Environmental Studies for sustainable development	2.4 Seminar
3.	<b>Environmental Studies Curriculum- An Approach</b>	
3.1	Environmental Studies-Aims ,Objectives	3.1 Formulating Experiments
3.2	Integrated Approach and Environmental Studies	3.2 Booklet - Habitat

### 7.3.6 Teaching of Mathematics

The paper Mathematics: Learning and approach is included in Semester I to lay a foundation on teaching of Mathematics. The details are given below.

#### Rationale

Mathematics a life-related subject. The aim of learning Mathematics at the primary level is to equip the student with the mathematical concepts behind the facts that we make use of in our daily life. A child acquires certain mathematical concepts from his own experiences even before he learns the subject at school. But when mathematics is taught/presented to him in a more orderly and systematic manner it stands apart from the knowledge which he has already acquired. This makes the subject difficult for the child. So it is necessary to overcome the difficulties and provide the experiences in a more natural manner. For this, it is necessary that the student teachers are able to identify the theories and facts related to a particular mathematical concept and present them through activities in relation to daily experience. One must be able to differentiate between the abstract and the concrete, to generalise the ideas, come to curriculum through logical steps to deduce and express concepts using mathematical symbols. The learning of Mathematics should also enable the learner to solve problems, analyse information and excel in pictorial representations. Thus the

child must be able to (acquire the ability to) overcome the problems in daily life, develop accuracy, precision, be able to perform in a systematic and organised manner and improve his logical reasoning capacity through the learning of Mathematics.

#### Objectives (Semester I and II)

The student teacher must attain the objectives give below.

- To acquire a clear idea of the content of the subject at the primary level.
- To develop an idea on the mode of transaction and methodology to enable his/her learner to acquire knowledge in Mathematics.
- To get an understanding of the need of teacher intervention for effective learning of Mathematics, teaching skills for effective teaching and new evaluation techniques.

<b>Paper No.</b>	<b>Name of the Paper</b>
<b>S<sub>1</sub>.P<sub>6</sub></b>	<b>Mathematics - Learning and Approach</b>
<b>Total Score</b>	<b>: 20</b> (Continuous evaluation CE 20 only)
<b>Total Semester Time</b>	<b>: 65 hrs</b>
<b>Time in one week</b>	<b>: 3 hrs</b>

## **Content**

### **Unit - 1 (Time - 9 hours)**

*Mathematics : Nature and Objective*

### **Unit - 2 (Time - 15 hours)**

*An Approach to the Learning of Mathematics*

### **Unit - 3 (Time - 27 hours)**

*Pedagogical Analysis of Content*

### **Unit - 4 (Time - 14 hours)**

*Teaching Methodology of Mathematics*

S<sub>1</sub>. P<sub>6</sub> Mathematics - Learning and Approach - Details of the unit

Content	Transaction
<p><b>Unit - 1 : The nature and learning objectives of Mathematics (9 hours)</b></p> <ul style="list-style-type: none"> <li>• <b>What is Mathematics?</b></li> <li>• <b>Nature of Mathematics</b> <ul style="list-style-type: none"> <li>• Accuracy, precision (changes according to context and need)</li> <li>• Concrete/Abstract nature</li> <li>• Correlation of ideas</li> <li>• Mathematics a language</li> <li>• Logical structuring</li> <li>• Dynamic nature (related to geometry)</li> <li>• Logical reasoning</li> <li>• Why learn Mathematics?</li> <li>• Mathematical thinking</li> <li>• The aesthetic level of mathematics</li> <li>• The practical side mathematics</li> <li>• Relation with other subjects</li> <li>• Tool for transaction of ideas</li> <li>• Mathematics - Origin &amp; Development</li> <li>• Period</li> <li>• Important stages in its growth, period (related to growth of no.s, geometry etc)</li> </ul> </li> </ul> <p><b>Unit : 2 - Approach to Learning Mathematics (15 hours)</b></p> <ul style="list-style-type: none"> <li>• Approach to learning of Mathematics</li> <li>• Activity-based</li> <li>• Process skill oriented</li> <li>• Analysis of problems, finding out different ways/solutions, comparison, forming conclusion, generalisation, metathinking, communication, problems, observation, classifications, rating, analysis inspection, evaluation, application, prediction, measurement, measure with accuracy, precision, use of apparatus/instruments, compilation, tabulation, memorization.</li> </ul>	<ul style="list-style-type: none"> <li>• Finds out the scope and challenges in teaching of Mathematics. Identifies the nature of mathematics.</li> <li>• Choosing teaching methods suitable for the nature of mathematics.</li> <li>▲ Why does Mathematics find applicability in other subjects?</li> <li>▲ What are the aims of teaching of Mathematics?</li> <li>▲ How can Mathematics be used as a tool for communication?</li> <li>■ Explains abstract concepts in mathematics on the basis of concrete things/experiences.</li> <li>■ Explaining how physical qualities like colour, size, shape, volume, weight can be connected to mathematical concepts.</li> <li>■ Designing learning activities to present selected mathematical ideas at three different levels.             <ol style="list-style-type: none"> <li>1) Concrete level</li> <li>2) Representative level/picture</li> <li>3) Abstract level/signs</li> </ol> </li> <li>▲ How are process skills related to teaching &amp; learning of Mathematics?</li> <li>▲ What is the importance of open question in the teaching of Mathematics? What are the various mathematical abilities a child develops through such activities?</li> <li>■ To analyse mathematical ideas and skills and find out/identify the process skills in them.</li> <li>■ To plan learning activities to develop various process skills.</li> <li>■ To prepare illustrations on the chosen abstract mathematical concepts.</li> <li>■ To explain the differences in introduction and conclusion based on approach to the learning of mathematics.</li> <li>■ To prepare open questions from different areas in mathematics so as to help learners gain process skills.</li> </ul>

Content	Transaction
<ul style="list-style-type: none"> <li>• Related to surroundings</li> <li>• Problem based</li> <li>• Analysis of problems</li> <li>• Rating and prediction</li> <li>• Open questions</li> <li>• Visualisation</li> <li>• Generalisation</li> <li>• Related to hidden Curricular areas (Gender equality, approaches towards children with special education needs, social equality, individual differences)</li> </ul> <p><b>Unit 3 Content analysis of Pedagogy (Time : 27 hours)</b></p> <ul style="list-style-type: none"> <li>• To identify the ideas related to the below given areas the various/different aspects of these ideas, activities needed to master these ideas related historical facts, their growth and continuation.</li> </ul> <p><b>Numerical Sense</b></p> <ul style="list-style-type: none"> <li>• Idea of numbers, counting numbers, divisible and indivisible numbers.</li> <li>• Patterns</li> <li>• Multiples, factors</li> <li>• If a number is totally divisible by 2, 3, 4, 5, 6, 8, 9, 11</li> <li>• Fundamental operations</li> <li>• Rational number</li> <li>• Decimal number</li> </ul> <p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>• Activities including the use of geometric shapes (square, circle, triangle) drawing/construction.</li> <li>• Translation</li> <li>• Symmetry</li> <li>• Special Geometry</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation on the usage of pre-number ideas in teaching</li> <li>• Explains how patterns can be used in teaching in the primary section</li> <li>• Finds out the possible misunderstandings in the minds of students about basic mathematical concepts - for this their notebooks are examined following which suitable questions are asked.</li> <li>• Explains how examples from daily life on ordinary concepts like growth, increase etc can be connected to mathematical concepts.</li> <li>• Prepares a graphical representation of the relation between the four fundamental operations..</li> <li>• Explains the different methods to present multiples, fraction etc.</li> <li>• Finds the MI possibilities of patterns, tessellation</li> <li>• Prepare worksheet to transact the mathematical concept related to money.</li> <li>• Examines and records content area of classes 1 to 5 and finds out the various process skills related to each activity through group discussion.</li> </ul>



Content	Transaction
<p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>Length, perimeter, area (rectangle, square), volume, time, weight, money, calendar</li> </ul> <p><b>Analysis of data</b></p> <ul style="list-style-type: none"> <li>Differentiation, classification, tabulation, picturisation</li> <li>Collects information from simple graphs</li> </ul> <p><b>Unit 4</b></p> <p><b>Methods of teaching Mathematics</b></p> <ul style="list-style-type: none"> <li>Theoretical foundations of Mathematics - Theories of Piaget, Bruner, Skemp, Vygotsky</li> <li>Various stages in the construction of knowledge</li> <li>Stages in the formation of mathematical concepts (ELPS,...)</li> <li>Learning of Mathematics - techniques and methods <ul style="list-style-type: none"> <li>- Inductive/Deductive method</li> <li>- Project Method</li> <li>- Research Method</li> <li>- Analysis-Integration Method</li> </ul> </li> <li>Learning Tools <ul style="list-style-type: none"> <li>- Scope</li> <li>- Production</li> </ul> </li> <li>Production and Collection of mathematical games, mathematical puzzles, mathematical lores, mathematical dictionary, poems</li> </ul>	<ul style="list-style-type: none"> <li>▲ When do the children in Std I begin to write numbers?</li> <li>▲ Division is the most difficult operation for students. Discuss</li> <li>▲ Why do we use prime numbers only to find out if a number can be divided by another finite number.</li> <li>▲ '1' is not a prime number - Why?</li> </ul> <ul style="list-style-type: none"> <li>• Identifies the transaction techniques to equip the learners acquire mathematical knowledge.</li> <li>• To develop the ability to use new teaching techniques to make the learning of mathematics useful and effective.</li> <li>• Inorder to transact different mathematical concepts different techniques and methods are used. Why?</li> <li>▲ Acquires the skill to make the learning of Mathematics effective by using new teaching methods.</li> <li>■ Forms theoretical conclusions in teaching mathematics after studying the theories of psychologists like Piaget, Bruner, Vygotsky etc.</li> <li>■ Explains the aspects to be given importance when the basic mathematical concepts are presented at different levels based on the theories of Piaget.</li> <li>■ In order to find out the different methods used by students to solve problems, collect information from the students as to how they solve choosen questions.</li> <li>■ Finds out the teaching techniques that can be made use of to change from verbal presentation to symbolic presentation.</li> <li>■ Develops mathematical puzzles, mathematical games, magic squares, different learning materials.</li> </ul>

## Mathematics - Items for Continuous Evaluation

### 1. Write-ups

- Script
- formulated through discussions/group discussions
- Assimilated through reading
- Findings from observation
- Analysis
- Related to interview
- Related to field trips
- Seminar Paper
- Related to mathematical concepts

### 2. Collections and Constructions

- Learning materials related to formation of mathematical concepts (Collected & constructed)

### 3. Unit test

### 4. Simulation classes

### 5. Notebook (Mathematics)

### Scoring key for continuous evaluation

1. Only two notes need to be there in the profile. The rest should be noted down in the book at the appropriate time. This notebook can also be considered for continuous evaluation.
2. The learning materials can be made on-the spot and scores can be awarded.
3. Unit test can be conducted at the end of every unit (Written or Oral (Quiz) type)

In the 5 items given above every item can be given 10 score each and a total score can be recorded on 20.