**CLASS 9 HOME SCIENCE**

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| **Topic** | **Learning outcomds** | **Innovative/art integration, Experiential learning, Inter-disciplinary action.** |
| Unit I. Concept and scope of Home Science Education and recent trends1. Concept of Home Science
2. Fields of Home Science
3. Relevance of study of Home Science and career options
4. Recent trends

Unit II. Human Growth & Development1. Concept of growth and development
2. Principles of growth and development
3. Factors affecting growth and development (environmental and heredity)
4. Age specific milestones (Birth to 3 years) Physical, motor, social, emotional, cognitive and language

Unit III. Family and Values1. Concept and types of family
2. Role of family in Holistic development of and individual (Physical, Social, Psychological and Spiritual)
3. Ethical and value based society (need for happy family, respect and care for each member of family, Dignity of labour, work distribution within the family)
4. Importance of Girl Child
5. Influence of various factors on a family: Globalization, Urbanization, Migration, Technology and Media

Unit IV. Food, Nutrition and Health1. Definition of Food, Nutrition, Nutrient, Health and Nutritional Status
2. Food and its functions (Physiological, Social and Psychological)
3. Nutrients : sources and functions
4. Relationship of Food, Health and Diseases
5. Malnutrition : concepts and components (over nutrition and under nutrition)
6. Concept of Balanced Diet

Unit V. Fibre and Fabric1. Definition of Fiber and Yarn
2. Classification of fib er on the basis of origin and length
3. Characteristics of fibers : feel, appearance, colour fastness, length, strength, absorbency, shrinkage, elasticity, effect of heat and sunlight

Unit VI. Resource Management1. Resources : Definition and characteristics
2. Types of resources (Human : Time, Energy, knowledge and attitude Non- Human : Money, materialistic goods and community resources)
3. Waste Management – Need to refuse, reduce, reuse, repair and recycle waste.
4. Proper disposal of kitchen waste (Biodegradable: Composting, Vermicomposting, Biogas and Bagasse, Non-Biodegradable : Incineration, Landfills and Recycle)

Unit VII. Measures of Safety and Management of Emergencies1. Accident prone/ Unsafe Zones at home
2. Need of safety at home
3. Measures of safety against burns, electric shocks, cuts, fractures, bites, poisoning
4. First Aid : Concept and Importance
 | Student will be able to know about the concept of Home Science and recent trends and will get to know career options. Student will be able to understand the concept, principles of growth and development, what are the factors affecting growth and developments and age specific milestones.Child will learn concept and types of family, what is the role of family in holistic development of an individual, importance of girl child, influence of various factors on a family, traditionally ethical and value based Indian society etc.Child will learn about food, nutrients, nutritional status, functions of food, relationship of food with health and diseases, malnutrition, concept of balanced dietStudent will be able to understand fiber, yarn on the bases of origin, length, also will be able to understand the characteristics of fiber. Student will be able to understand the definition, type of resources, waste management and proper disposal of kitchen waste.Child will learn about accident prone or unsafe zones at home, need of safety at home, measures of safety against burns, cuts etc. Will gather the knowledge about importance of first aid. | **Art integration :** Learns the art to promote creativity and collaboration.**Experiential learning:**It offers learner the opportunity to acquire skills and knowledge through first hand experiences and those experiences reflect to develop new skills, attitudes, ways of thinking and allowing them to develop a better understanding of the concept at hand.**Inter-disciplinary action:** It encompasses five major discipline i.e. food, nutrition and health, human growth and development, resource management, fiber and fabric, community and extension education.**Science**: Home science is a science based on knowledge, research education, observation, hypothesis etc.**Life Science**: Deals with human growth and body development.**Social Science**: Deals with welfare of society and himself.**Biology**: Related with the knowledge of nutrients of each food that provide us with. Also different stages of growth, first aid measures etc.**Psychology**: Knowledge of happiness and how to survive in the society.**English**: All the content**Art integration:**Different milestone help child to develop academic and social skills that are foundations for future learning, behavior and health. Also helps children to focus on learning life skills, While learning through art, child uses different senses and parts of brain, which help them connect and recall important information**Experiential Learning:** Experiential learning is significant for child’s brain development and learning. The child learn and apply their learning to pass the exams. It helps team to struggle academically and socially.**Inter-disciplinary:****Science**: Helps child to understand the development of different parts of the body i.e. physical, biological, motor, social, cognitive, emotional and language.**Biology**: Development of harmones during development.**Psychology**: Knowledge of happiness and how to survive in the society.**English**: All the content.**Activity:** Observation of physical development in a child from birth to 3 yearsObservation of motor skills in a child from birth to 3 years. **Art integration:**Learns the art to behave in society, discipline, develop behavior, how to live in discipline and become successful with the support of family.**Experiential Learning:** Child will learn the importance of caring for and giving back to others by participating in activities that nurture, empathy, team work, generosity and other character traits that prepare them for life. **Inter-disciplinary:****Sociology:** How to behave and survive in society.**Psychology**: Develops behavior, emotions, Knowledge of happiness and how to survive in the society and how to face difficulties in life**Value Education:** Moral stories will teach them about the honesty, hardwork, sharing, respect for elders and love for everyone.**English**: All the content.**Activity:** Role of family members: Collage/chart etc.**Art integration:** Learns the art to navigate food safety and hygiene. Also the knowledge of nutrients, nutrition and nutritional status and value.**Experiential learning:**  How to maintain nutritional status as well the food that prevent from diseases, helps in overcoming malnutrition by including balanced diet.**Inter-disciplinary:****Science**: How to manage good health by including all the required nutrients in diet. **Maths**: How many principles of food are there?**English**: All the content**Activities**: Design educational games specific to functions/sources of nutrientsWeights and measures: Equivalents/conversion of ounce, grams, cup tea spoon, tea spoon, how to use a kitchen weighing scaleIdentification of foods, vegetables, spices, oils, sugars, cereals and lentils Food processing method Demonstration: Germination and fermentation.**Art integration:** Learns the art to differentiate different type of clothes.**Experiential learning:**  How to differentiate different clothes according to feel, experience etc.**Inter-disciplinary:****Physics:** Knowledge of different technologies and equipments for making fabrics.**Chemistry**: Different chemical used in making different fibers.**Economics**: Helps in making budgets in fabric industry**English**: All the content**Activity**: Collection and identification of fiber: Physical and burning test.**Art integration:** Learns the art to utilize time energy, knowledge, money in a better way to get good results**Experiential learning:**  Will utilize money, time, energy, knowledge efficiently and intern work productively.**Inter-disciplinary:****Science**: How to manage technology and equipments for utilizing the waste formed from kitchen.**Economics**: Utilization of time, energy and money to get profits.**English**: All the content**Activity**: Create a slogan/poster for proper disposal of domestic waste.**Art integration:** Learns the art to safe himself and others and use of first aid during emergencies**Experiential learning:**  Will be able keep himself and others safe by taking safety measures and also including first aid kit during emergency.**Inter-disciplinary:****Science**: How to use the technology and equipments for the safety of himself and others.**English**: All the content**Activity**: Prepare a first aid kit and practice giving first aid for burns, cuts, bites, fractures, electric shock. |