

Unit

1

HOME SCIENCE - CONCEPT AND SCOPE

Introduction

Home Science being a subject now introduced at the Higher Secondary level, students are expected to possess basic information about it. This introductory chapter deals with the evolution, meaning, importance, areas and scope of Home Science. After going through this chapter the interest of the students in the subject will be stimulated and a positive attitude towards the subject will be developed.

Values and Attitudes

After completing this chapter, the learner:

- Develops a healthy personality and inculcates virtues of social living.

Concepts/ Ideas	Process/Activity with assessment	Learning outcome
1.1 Evolution of the discipline of Home Science <ul style="list-style-type: none"> • Observing • Classifying • Inferring • Interpreting data 	<ul style="list-style-type: none"> ➤ Collection of information from the internet on the history of Home Science and preparation of report. 	<ul style="list-style-type: none"> ➤ Identifying the evolution, meaning, importance, major areas and scope of Home Science
1.2 Meaning and Importance of Home Science education <ul style="list-style-type: none"> • Communicating and understanding the communication of others • Making operational definition 	<ul style="list-style-type: none"> ➤ General discussion on the importance of Home Science education and preparation of note. 	
1.3 Major Areas in Home Science <ul style="list-style-type: none"> • Observing • Classifying • Communicating and understanding the communication of others 	<ul style="list-style-type: none"> ➤ Preparation of collage on major areas in Home Science 	
1.4 Scope of Home Science <ul style="list-style-type: none"> • Educational and Vocational • Observing • Inferring • Interpreting data • Communicating and understanding the communication of others. 	<ul style="list-style-type: none"> ➤ Seminar on employment opportunities in Home Science and preparation of report 	

Through the Chapter....

KEY CONCEPT 1.1 : Evolution of the discipline of Home Science

Suggested Activity: Collection of information from the internet

The teacher initiates the concept through general discussion. Students collect information from the internet regarding the history and status of Home Science in other developing and developed countries. The information should contain the following:

Discussion points:

- Can you name the first Home Science institution?
- Can you mention the other names given to the subject?

The teacher divides the class into various groups according to its size. They discuss the information collected in groups. Based on this, they prepare a report and the group leader presents it before the class.

Consolidation points

- Evolution of the discipline of Home Science

1.2 Key concept: Meaning and Importance of Home Science education

Suggested activity: General discussion

Teacher conducts a general discussion based on the following:

Discussion points

- What do you mean by 'Home Science'?
- Do you know why the subject is included in the curriculum?

After discussion the students shall prepare a note in their Activity log.

Consolidation points

Meaning and Importance of Home Science education

1.3 Key Concept : Major Areas in Home Science

Suggested Activity : Preparation of collage

Teacher introduces the concept by inviting the attention of the students to the picture given in the text book on page 10. Based on this, the teacher asks them to collect pictures suitable to each area depicted in the picture. The teacher divides the class into various groups according to its size. They select

suitable pictures and prepare collage in groups. Teacher can assess the same using indicators.

Consolidation Points

- ❖ Major Areas in Home Science

1.4 Key Concept : Scope of Home Science -Educational and Vocational

Suggested Activity : Seminar

The teacher conducts a general discussion based on the discussion points given below.

Discussion points

- Are you aware of the job opportunities of Home Science?
- What are the opportunities for higher education?

After the general discussion the teacher divides the class into 4-5 groups and each group selects a leader. The students collect details and a discussion is carried out in groups, based on the information collected. The teacher and students decide the date and time of the seminar. The teacher randomly selects a group to present the seminar .The students of other groups can actively participate in the seminar asking related questions. The teacher consolidates the points. Each group prepares a report.

Consolidation points

- Scope of Home Science

Self assessment on the scope of Home Science can be done by using the following worksheet .The worksheet displays vocational opportunities related to Home Science .The students can put a tick mark in the appropriate column.

Sl.No.	Vocational Opportunity	Food and Nutrition	Textile Science
1	Food Technologist		
2	Interior Design Assistant		
3	Special Educator		
4	Merchandise Displayer		
5	Social Service Technician		
6	Dietetic Technician		

Items for Continuous Evaluation

a. Process assessment

- Seminar on the scope of Home Science
- Collection of information on the history of Home Science

b. Portfolio assessment

- Information collected on the evolution of Home Science
- Reports of discussion on the meaning and importance of Home Science education
- Collage on major areas of Home Science

c. Unit assessment

- Unit test
- Quiz competition
- Preparation of questions and writing answers
- Open book assessment
- Oral test

Sample Term end Questions

1. Prepare a talk for a presentation at a Women's Forum on 'Evolution and Scope of Home Science'?
2. Home Science is a practical subject one applies in everyday life which includes information from various areas. List the different branches of Home Science.

Unit 2

INTRODUCTION TO HUMAN DEVELOPMENT

Introduction

The last chapter provided an introduction to the subject Home Science. In it, there was a mention of the five major areas of the subject. Out of the five areas, two, namely Human Development and Family and Community Resource Management are detailed in a comprehensive manner, in the Home Science text book for the first year. This chapter will introduce, Human Development. Through this chapter, students will gain a basic knowledge on the stages of development viz. pre-natal and post natal, growth and development, areas of development and factors affecting growth and development.

Values and Attitudes

The Learner

- Develops a positive attitude towards pre- natal care.

Concepts/ Ideas	Process/Activity with assessment	Learning outcome
<p>2.1 Stages of development-Pre-natal and Post natal</p> <ul style="list-style-type: none"> - Pre-natal period- - Post-natal period- • Communicating and understanding the communication of others • Interpreting data • Observing • Classifying 	<ul style="list-style-type: none"> ➤ Video presentation on pre-natal period and preparation of note ➤ General discussion on post natal period and preparation of a table ➤ Album preparation on the life span of human development 	<ul style="list-style-type: none"> • Differentiating stages of development
<p>2.2 Growth and development</p> <ul style="list-style-type: none"> - Principles of growth and development • Communicating and understanding the communication of others • Observing • Classifying 	<ul style="list-style-type: none"> ➤ General discussion on difference between growth and development and preparation of note ➤ General discussion and Preparation of chart on principles of growth and development 	<ul style="list-style-type: none"> • Differentiating growth and development and lists the different principles of growth and development by citing examples.
<p>2.3 Areas of development</p> <ul style="list-style-type: none"> • Communicating and understanding the communication of others • Observing • Classifying 	<ul style="list-style-type: none"> ➤ General discussion and preparation of note on areas of development 	<ul style="list-style-type: none"> • Discriminating the different areas of development
<p>2.4 Factors affecting growth and development</p> <ul style="list-style-type: none"> - Heredity and environment - Heredity disorders • Communicating and understanding the communication of others • Interpreting data • Observing • Classifying • Making operational definition 	<ul style="list-style-type: none"> ➤ General discussion on heredity and environment and the factors affecting growth and development and preparation of note ➤ Survey on hereditary disorders and preparation of report 	<ul style="list-style-type: none"> • Explaining the different factors affecting growth and development and analysing different hereditary disorders

Through the Chapter....

Unit Analysis

2.1 Key concept: Stages of development-Pre-natal and Post natal

Sub concept: Pre-natal period

Suggested activity: Video presentation

The teacher begins the section through a video presentation on the

pre-natal period. Video can be downloaded from the internet or

from any other source. The responsibility to collect video from

the internet may be assigned to selected students and the teacher chooses the best of them, who presents it in the class. After the presentation, the teacher conducts a general discussion using the following discussion points:

Discussion points

- Is the growth pattern uniform throughout the pregnancy period?
- What are the characteristic features of each of these sub-divisions?

After discussion, the teacher consolidates and the students note down the features of pre-natal period in their Activity log .

Consolidation points

- Prenatal period-period of ovum, period of embryo and the period of foetus.

Sub concept: Post-natal period

Suggested activity: General discussion

The teacher introduces the concept of post natal period through general discussion. Discussion may be made on the following points:

Discussion points

- Different stages you have passed through in your life?
- To which stage do you belong?
- Can you name the stages to which your family members belong?

Teacher Input

Prenatal or antenatal development is the process in which a human embryo or fetus (or foetus) gestates during pregnancy, from fertilization until birth. Often, the terms fetal development, foetal development, or embryology are used in a similar sense.

Other relevant points can also be discussed.

After general discussion the teacher consolidates and the students prepare a table in their Activity log.

Consolidation points

- Post natal period -Infancy, childhood, adolescence, adulthood and old age

Apart from the activities mentioned above for the sub concepts pre-natal and post-natal period, teacher can also conduct the activity mentioned below.

Suggested activity: Preparation of album

The teacher gives an assignment to the students to prepare an album on the life span of human development. This activity may be assigned individually. Students collect suitable pictures of stages of prenatal (month wise) and postnatal stages from magazines or from the internet. A Plain drawing book can be used for pasting pictures. The collected pictures are pasted and properly labeled. Teacher may use indicators for assessment.

Consolidation points

- Prenatal period-period of ovum, period of embryo and the period of foetus.
- Post natal period-Infancy, childhood, adolescence, adulthood and old age

2.2 Key concept: Growth and development

Suggested activity: General discussion

The teacher introduces the concept through general discussion. Discussion may be based on the following points:

Discussion points

- What do you mean by growth and development?
- Can you give examples for growth and development?
- Can you differentiate growth and development?

After discussion, students make a note of the meaning of growth and development, difference between growth and development in their Activity log.

Consolidation points

- Meaning of growth and development
- Difference between growth and development.

Sub concept: Principles of growth and development**Suggested activity: General discussion**

A discussion may be conducted on the principles of growth and development using the following points.

Discussion points

- What is the significance of the principles of growth and development?
- Give some examples for each principle of growth and development from your life.

After discussion, students list the principles of growth and development with examples in the form of a chart in their Activity log.

Consolidation points

- Principles of growth and development with examples.

Peer Assessment can be done using the following work sheet on principles of growth and development. In the work sheet, examples for different principles of growth and development are given. The students can identify the corresponding principle for each example. After completion of work, students can interchange and value the same as per the instructions of the teacher.

Sl.No.	Examples	Principles of growth and development
1	Physical development is rapid during infancy and adolescent period but slows down during the period of childhood.	
2	In early stages of language development, the child uses the word toy before he learns to call each toy by name	
3	Children of tall parents are generally tall	
4	A child can hold his head erect only after the neck muscles are strong enough for this.	
5	Bed wetting during the first year of life is normal but it can become a problem behaviour during early childhood	

The same tool can be used for self/teacher assessment.

2.3 Key concept: Areas of development

Suggested activity: General discussion

The teacher introduces the concept through a general discussion using the following points.

Discussion points

- Name the different areas of development
- What do you mean by physical, motor, language and speech, emotional, social and cognitive developments?

After general discussion, the teacher consolidates and the students prepare a note using the illustration given in the text book on Page 25.

Consolidation points

- Areas of development-physical, motor, language and speech, emotional, social and cognitive

Teacher assessment can be done related to this key concept. The teacher may give examples for developments in different areas like.

1. Ability to walk
2. Interaction with others
3. Crying
4. Laughing
5. Imagination
6. Changes in height and weight
7. Ability to talk

The teacher asks the students to identify the area of development related to the above examples and present it in the format given below.

Sl.No.	Examples	Area of development
1		
2		

The same tool can be used for peer /self assessment.

2.4 Key concept: Factors affecting growth and development

Sub concept : Heredity and environment and influence of heredity and environment on human development.

Suggested activity: General discussion

The teacher introduces the topic “Factors affecting growth and development” and conducts a general discussion on “Heredity and Environment” and the “Factors affecting growth and development” using the following points.

Discussion points

- What do you mean by heredity and environment?
- Has heredity and environment influenced you in your development?
- Give examples to show the influence of the same on your development.
- What are the other factors which affect your growth and development?

After discussion, the teacher consolidates and the students prepare a note in their Activity log.

Consolidation points

Meaning of heredity and environment

- Influence of heredity and environment on human development.
- Factors affecting growth and development.

Teacher Input

A **genetic disorder** is an illness caused by one or more abnormalities in the genome, especially a condition that is present from birth. Most genetic disorders are quite rare and affect one person in every several thousands or millions.

Genetic disorders may or may not be heritable, i.e., passed down from the parents’ genes. In non-heritable genetic disorders, defects may be caused by new mutations or changes in the DNA.

Sub concept: Hereditary disorders**Suggested activity: Survey**

The teacher introduces the topic “Hereditary disorders” and its symptoms by inviting the attention of the students to the illustration given in the text on Page 29. Teacher decides to conduct a survey on hereditary disorders in the locality. The class is divided into 5-6 groups depending on its size. Each group selects a group leader. Each group prepares a schedule through group discussion.

The information on the following points may be collected.

- Name of hereditary disorder
- Symptoms
- Whether the disease has been transmitted from father/mother
 - Age of the person
 - Treatment taken

Each group leader presents the schedule the group has prepared, in the class and after general discussion, the contents of the schedule are finalized.

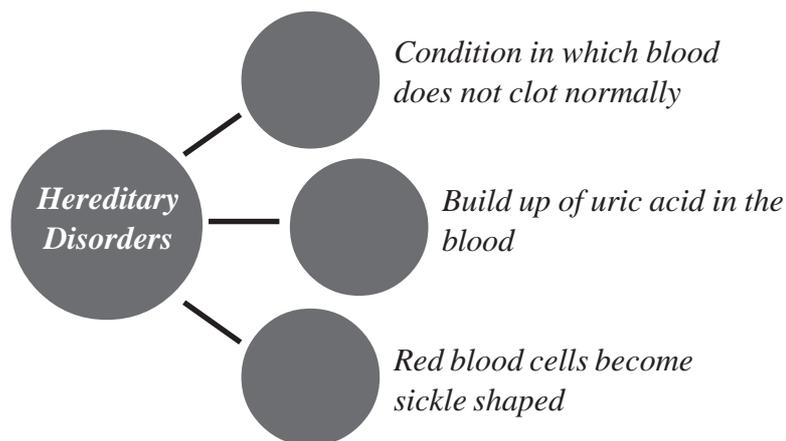
Mode of conduct of survey can be finalized by the teacher and the students through discussion.

After the survey, data will be consolidated group wise in the class and a report is prepared. The group leader presents the findings of the survey in the class. The teacher assesses the survey and the report using indicators.

Consolidation points

- Hereditary disorders and its symptoms.

The following illustration can be given to students for self assessment.



The same tool can be used for peer /teacher assessment.

Teacher Input

A **genetic disorder** is an illness caused by one or more abnormalities in the genome, especially a condition that is present from birth. Most genetic disorders are quite rare and affect one person in every several thousands or millions.

Genetic disorders may or may not be heritable, i.e., passed down from the parents' genes. In non-heritable genetic disorders, defects may be caused by new mutations or changes in the DNA.

Items for Continuous Evaluation

a) Process assessment

- Album preparation on life span of human development
- Survey on hereditary disorders

b) Portfolio assessment

- Album on life span of human development
- Reports of survey on hereditary disorders
- Chart on principles of growth and development.
- Table on post natal period.

c) Unit assessment

- Unit test
- Quiz competition
- Preparation of questions and writing answers
- Open book assessment
- Oral test

Sample Term end Questions

1. Differentiate between heredity and environment
2. Prepare a table on stages of post natal period and its characteristics
3. Find the odd one out. Give reason for the answer.

Gout, Sickle cell anaemia, Haemophilia, Scurvy

4. Evaluate the role of following factors on growth and development
 - a) Sex
 - b) Position in the family
 - c) Maturation and learning

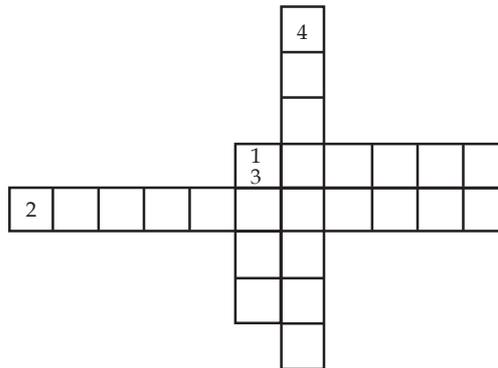
5. Fill the cross word

Across

1. Quantitative increase in size and structure
2. — — — — — refers to all factors, except heredity, affecting growth and development

Down

3. Build up of uric acid in the blood
4. It comes from experiences



6. Write the corresponding principles of growth and development for the following instances.
- Child catches a ball first with both his arms, then with palms and later with his fingers.
 - A child can hold his head erect only after the neck muscles are strong enough for this.
 - Children of tall parents are generally tall.
 - Physical development is rapid during infancy and adolescent period but slows down during childhood period.
7. Children grow and develop according to certain principles. Explain any six principles with examples.

Hyper links

http://en.wikipedia.org/wiki/Genetic_disorder

http://en.wikipedia.org/wiki/Prenatal_development

www.uen.org/Lessonplan/downloadFile.cgi?file=29121...ppt...ppt