# THERAPEUTIC HORTICULTURE - AN INSIGHT



PC: Pranav Inbavijayan

Compiled by

Mrs Surya Narmada Inbavijayan, M.Sc.,(Horticulture)

and

Ms.Bhavani, B.Tech (Horticulture)
Ms.Dhivya, B.Tech (Horticulture)
Ms.Nandhini, B.Tech (Horticulture)
Ms.Visudharani, B.Tech (Horticulture)

<u>Illustrator:</u> Ms.Nandhini, B.Tech (Horticulture)

Editor: Ms. Vijayalakshmi Madhusudhanan

Published by KOVISE FOUNDATION, June 2017

#### **PREFACE**

It all started years ago. I was a voracious reader then. On the last day of my college, my professor, and mentor - Dr. Shri. E. Vadivel, of TNAU (Tamil Nadu Agriculture University) gifted me a book on Therapeutic Horticulture and advised me to read it. It was the turning point. Since then, Therapeutic Horticulture became my passion and way of life.

My journey made me work for various Rehabilitation Centres; dealing with special people of all age groups. At this point, I gained a vast experience by implementing and exploring Therapeutic Horticulture as supplementary therapy on various clients, including people affected by chronic illness. I witnessed the astonishing healing effect of Horticulture therapy as supplementary means on the participants. In the meanwhile, my dear mother was diagnosed of 'Hemiplegia' in 2000 as a result of her chronic illness. I tried Therapeutic Horticulture as a supplement means to my mother optimistically, applying all that I had learnt about plants and trees. They did not let me down. Today, my mother has motivated and come to near normalcy and is leading a peaceful life, thanks to Horticulture therapy. This prompted me to bring out this book. I like to forward my special thanks to Ms.Paula Diane Relf, Former Professor, Virginia Tech and Mr.Mitchel Hewson, Ontario who guided me in the concept of Therapeutic Horticulture by their articles and books.

I earnestly wish more and more people get benefitted from Therapeutic Horticulture. I request the readers to help us in creating this awareness by recommending their relatives and friends to read this book.

I shall be too glad to offer any guidance related to Therapeutic Horticulture.

#### Mrs. Surya Narmada Inbavijayan.,

M.Sc., (Horticulture), F. I.V

- Horticulture Consultant
- Government Registered Valuer Agriculture lands
- Proprietor KOVISE AGRO
- Partner KoVe Global Arbitration Boutique
- Founder KOVISE Foundation
- Advisor Traditional Method of Agriculture employing innovative technology
- Consultant Therapeutic Horticulture

**EDITOR'S COLUMN** 

I take great pleasure in editing such a booklet which is very informative about

Therapeutic Horticulture.

The concept of Therapeutic Horticulture is ancient and time proven. The

uniqueness of this therapy lies in the fact that, not only the concerned participant

gets benefitted, but the dear and near ones of the participant also come under the

positive aura of Horticulture. It aids in promoting physical, psychological, social,

and the mental well-being of its followers.

Professionally trained Horticulture therapists can bring about subtle to marked

differences in the attitude of their clients. Personally, I have witnessed the

miraculous changes happening in the participants of Ms Surya Narmada's

Therapeutic Horticulture.

My humble appeal to the persons accompanying the client is - they should have a

complete trust and patience in this therapy. The progress is usually slow but

sustained.

Therapeutic Horticulture is not confined to special or sick people. I am of the view

that it must be made mandatory in schools, colleges, and work places in these

times when 'stress' is omnipresent. It should be inculcated as a way of life rather as

a therapy.

- Vijayalakshmi

3

# TABLE OF CONTENTS

Chapter 1 Introduction
1.2 Horticultural Therapy techniques
Chapter 2 Scientific significance of using plants as Therapeutic medium 6
2.1 Interaction of Human system and Oxygen
2.2 Interaction of Human system and Colours
2.3 Interaction of Human system and Aroma
Chapter 3 The 3 W 's of Therapeutic Horticulture
3.1 What is therapeutic horticulture?
3.2 Why therapeutic horticulture?
3.3 When therapeutic horticulture?
3.4 Who needs therapeutic horticulture?
3.5 Where can therapeutic horticulture be practiced?
Chapter 4 Applicability of Therapeutic Horticulture
4.1 How to introduce?
4.2 Purpose of healing gardens
4.3 Observation of skills
4.4 Types of Clientele
Chapter 5 Assessment of clients
5.1 Preparing the Assessment chart
5.2 Model Assessment Chart
5.3 Sort term Goal
5.4 Long term Goal
Chapter 6 Therapeutic Activities using plants
6.1 to 6.50 Activities and Inferences
Glossary

#### Chapter 1

#### INTRODUCTION

Horticulture therapy or the STH – Social and Therapeutic horticulture is a therapeutic activity in which plants are used as the healing medium balancing the mind, body and soul of humans.

#### 1.1 History

Humanity evolved only from nature. Hence, obviously, the mind of humans is inter-wined with the flora and fauna. Amidst nature, man realises the balancing of mind, body, and soul. The therapeutic touch of plants has been observed even by early man.

The oriental religions like Hinduism and Buddhism have preached the divinity of plants and advised its followers to respect them. In India, Nandavanam, Tabovanam, Rajavanam types of gardens flourished in temples, palaces, forests and in gurukulas on this basis.

Siddhars, the Alma maters of Siddha medicines and Naturopathy, propagated the concept of plants as therapeutic medium from time immemorial. Interaction between man and plants and intake of herbs for therapeutic purposes is the crux of this field of treatment.

Therapeutic Horticulture is, hence a time-proven practice. The therapeutic benefits of garden environments have been documented since ancient times.

Dr. Benjamin Rush's 'Friends Hospital' which dates back to 19<sup>th</sup> century, is a testimony to this. He is regarded as the 'Father of American Psychiatry'. He was the first practitioner to document the curative Inferences of the plants on the mental well-being of the war survivors. This practice was later extended to improve memory, language skills, and cognitive abilities. In the field of rehabilitation, horticulture plays a vital role in strengthening muscles, coordination, and mental balance.

#### 1.2 Horticultural therapy techniques help:

- the participants to learn new skills or regain those that are lost
- to improve memory, cognitive abilities, task initiation, language skills, and socialization
- to strengthen muscles and improve coordination, balance, and endurance
- people learn to work independently, problem solve, and follow directions

#### Chapter 2

#### SCIENTIFIC SIGNIFICANCE OF PLANTS AS THERAPEUTIC MEDIUM

Healing by plants is an age-old practise sustained through various generations and civilisations. The scientific connect to this therapy is the interaction with the plants:

- Oxygen
- Colours
- > Aroma

#### 2.1 Interaction of Human System and Oxygen

When oxygen enters into the body it is absorbed by the body and is imbibed in blood which in turn regulates the flow of blood in the body. As the blood flow gets regulated, i the endocrine glands in our body stimulate and function properly. Each Endocrine gland is associated with an important organ of the body and on its normal functioning it regulates the function of the organs in a proper manner. Therefore, this process stimulates the body system to function properly and thereby balancing the mind, body, and soul. The proper interaction among the mind, body, and soul is the most important factor for a healthy physical and mental life.

For example, in olden days, our Indian Women in rural/ village areas had the practice of worshiping Lord Ganesha under the sacred tree peepal (*Ficus religiosa*) immediately after taking bath in the river. We think it to be a superstitious religious belief. But, the scientific fact is that the leaves of the peepal tree produce Senatonin a volatile compound which stimulates the uterus.

Further Peepal and Neem trees release 90 -95% oxygen during daytime. When we are beneath these trees after taking bath ( when our body is fresh), absorption of oxygen by the body and absorption of the volatile compound will be more and hence will make us refreshed and energetic.

#### 2.2 Interaction of Human System and Colours



Fig 1: Primary Colours

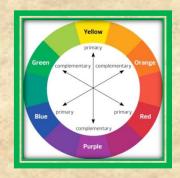


Fig 2: Secondary Colours

Primary colours: Blue, Red, and Yellow.

Secondary colours: Green, Orange, and Violet or Purple.

Tertiary colours: Green-yellow, Yellow-orange, Orange-red, Red-violet, Violet-blue, and Blue-green.

Colour wheels are based on three primary and secondary colours: six tertiary colours formed by mixing primary and secondary colours.

Green colour has a neutral wavelength. In the rainbow we can see green colour in the centre of VIBGYOR (Acronym - Violet, Indigo, Blue, Green, Yellow, Orange, and Red). Green colour is an intermediate between warm and cool colours. Scientifically, it is proven that green colour absorbs neutral wavelength. Hence, it naturally imparts the feel of tranquillity. This can be explained by the following situation.

When a person experiences problems, he will be restless and under stress. If such a person walks into a garden or green scenario, he gets into calmer mood, comes out of his thoughts about his problems. This is due to the green wavelength being imbibed by his eyes,

transmitted to his mind, making him calm. Hence green colour is a natural tranquiliser. It has the capacity to change the mind, reducing the vigour and stress. When we get angry, our energy level gets hyper and consequently the adrenalin rush is high too. This can be balanced by the green colour which soothes our mind.

Plant activities can reduce the energy which we get during anger. Weeding is a type of meditation. While weeding, we concentrate in uprooting the weeds along with the roots initially: later on we focus on completing the work. It actually relieves our mind from various thoughts

#### 2.3 Interaction of Human System and Aroma:

Aromas from plants can have a positive vibration on one's mood and well being. This can be experienced by smelling aromatic leaves and oils. One can enjoy their therapeutic power by growing scented herbs like mint, basil, geranium, rosemary etc. in home gardens. Aroma, thus has healing effect naturally.

#### Chapter 3

#### THE 5 W'S OF THERAPEUTIC HORTICULTURE

#### 3.1 What is therapeutic horticulture?

Therapeutic Horticulture is an activity using plant as a medium to balance the mind, body, and soul. As plants have direct link between cosmic world and earth they can easily interact with human body and mind as they all complement each other in the eco- system. Peter Tompkins emphasises this in his book 'The Secret life of Plants'.

#### 3.2 Why therapeutic horticulture?

It soothes our sensory organs, inner organ system and utlimately the body, mind and soul. As plants are living entity they are closely related with the humans and are responsive to their emotions and feelings.

#### 3.3 When therapeutic Horticulture?

Therapeutic Horticulture is needed to humans in all phases of their life i.e. from childhood to geriatric; stressed, as well as relaxed conditions; during both stable and unstable physical as well as mental conditions.

#### 3.4 Who needs therapeutic horticulture?

- Normal Persons Young and the old
- Physically disabled
- Psychological disturbed
- Geriatrics
- Special Children
- Public offenders
- People Affected by Chronic Illness

#### 3.5 Where can therapeutic horticulture be practised?

Therapeutic horticulture can be practiced using a single potted plant to a large garden or creating a therapeutic horticulture centre.

#### Chapter 4

#### APPLICABILITY OF THERAPEUTIC HORTICULTURE

#### 4.1 How to introduce?

- Client trainer *via* plant. The trainer introduces the subject to the plants and trees.
- ➤ Client plant observation. The trainer encourages the subject to interact with the plants and trees, acting as a catalyst in creating a bond between the subject and the plants.
- Client plant relationship. The trainer withdraws from the relationship that has nurtured between the subject and the plants.

#### 4.2 Purpose of healing gardens

It is to satisfy the daily, preventive, supportive people of different age groups and it:

- Depends on the components of the garden
- > Stimulates all sensory organs

#### 4.2.1 Daily Activity:

Each and every human being should spend time with plants (plants are great distressing agents)

#### 4.2.2 Preventive:

- Daily activity
- Stress Free or relaxation activity

#### 4.2.3 Supportive activity:

- Relaxation activity
- > Treatment activity

#### 4.3 Observation of Skills

#### 4.3.1 Physical skills

- Movement comfort and capacity
- Restriction
- Body movement, bending capacity etc

#### 4.3.2 Social skills

- > Attitude with the peer group
- Compatible attitude
- > Incompatible attitude

#### 4.3.4 Behavioural skills

- > Assessing the behavior
- > Anger, restlessness

#### 4.3.5 Cognitive skills

> Eye hand coordination (via mind)

#### 4.4 Types of Clientele

Implications of horticulture on various disabilities - people with mental ill health, dementia, and learning disabilities, physical and sensory problems.

### Client grouping includes:

- Physically disabled
- Mental illness
- Developmentally disabled
- Elderly people
- Addicts and Public offenders

### 4.4.1 Physically disabled

- ➤ Handicapped legs and hands
- Blind and visually impaired
- Dumb and deaf
- Paralytic / stroke

### 4.4.2 Mentally ill / psychiatric illness

- Depression
- Schizophrenia
- Alzheimer's disease
- Anxiety disorders

### 4.4.3 Developmentally disabled

- Mental retardation
- Cerebral palsy
- Epilepsy
- > Autism
- Neurological impairments etc.,

#### 4.4.5 Geriatric Problems:

Complications due to ageing - both physical and mental.

#### 4.4.6 Addictions:

(A habit which occupies more than 57% of a person's character is termed as addiction).

Addiction to alcohol, smoking, and drugs

#### 4.4.7 Public offenders

- Criminals / prisoners
- Juvenile offenders

#### 4.4.8 Stress Related Problems:

- Materialistic and busy urban
- > Tension in office and home
- Loneliness
- Second hand stress
- > Family problems
- Carrier problems and creativity work

## Chapter 5

#### ASSESSMENT OF CLIENTS

## 5.1 Preparing the assessment chart

- Criteria to be present
- > Time interval
- > On assessment, fixing up long term or short term goal
- > Steps involved in achieving the goal

### **5.2 Model Assessment Chart**

Name:
Age:

Gender: (i) male (ii) female (iii) others

**Income**: a) dependent b) independent

Achievements made by them:

## Family details:

Member	Name	Age	Occupation
Father	STORE ST	Tour.	
/Guardian			
Mother	THE RESERVE OF THE PERSON OF T		
Siblings	THINA		WE BEET NO

## **Family Status:**

- Orphan
- Neglected by parents
- Neglected by husband / wife
- Neglected by children
- > Others.

## Type of the subject:

- Normal person
- Physically disabled
- > Psychologically affected
- Geriatric
- > Children
- > Sense organ deficiency
- Public offenders
- > Addicts
- Others

## Types of abnormalities observed in them are due to:

### Abnormalities found from when and by whom?

- by birth
- by some incidents
- by some accidents
- > others

## Severity of the conditions

- initial
- > mild
- > medium
- > extreme
- > others

#### **Area of interest:**

- outdoor treatment
- indoor treatment

### **Choice of Plant Activity**

- Gardening (i) small plants (ii) trees (iii) shrubs
- > Potted plants (i) foliage (ii) flowers

Lawn making	(i)	dibbling	(ii)	turfing
	(-/		(/	

- Nursery raising (i) fruits (ii) vegetables (iii) greens (iv) spices (v) flowers (vi) Herbs
- Landscaping

Do they have reading habit? If so what kind of books?

**Duration of sleep:** 

Do they take any sleeping pills?

Whether they are under any treatment?

Likes and Dislikes:

Contents	Like	Dislike
Color		
Food	SERVICE THE PARTY OF	RITE TO A SUIT
Place	CONTRACTOR OF	
Aroma	更 切除 留味	
Person in family	<b>报</b> 事。 4 初前	
Friend		
Work		

Whether they have the habit of listening to music?

If so, what type of music they would like to hear?

Whether they have interest towards electronic gadgets?

Do they hate the smell of food while cooking?

Whether they get involved with the people who are in their home?

Whethe	r they like playing w	vith children?			
Do they	have any phobia?				
Do thoy	have any mania?				
Do they	nave any mama.				
What fe	el do they get when	they are alone?			
Is there	any unforgettable in	ncident in t <mark>h</mark> eir	life?		
Do they	have any feeling of	guilt?			
5.3 Shor	rt term Goal:				
5 4 Lon	g term <mark>Go</mark> al:				
	g term Goun				

#### Chapter 6

#### THERAPEUTIC ACTIVITIES USING PLANTS

The overall benefits of Horticulture therapy includes: Eye-hand co-ordination, fine tunes the motor skills, natural tranquiliser, calms and soothes the mind, improves observation, a means of income. In specific cases, depending upon the relevant activities, the results are astounding.

## 6.1 Poly bag filling

Give a polybag to the subjects

Make them fill a small amount of soil media inside it

Ask them to fold the corners of the bag.



Fig 3 - Poly bag filling

**Inference:** Setting a target on the number of filled in polybags would make them enthusiastic in doing work.

#### 6.2 Seed Sowing

Give seeds from seed packets

Make them dig one-inch deep holes into the soil

They can use their hands or stick

Tell them to sow the seeds inside the holes

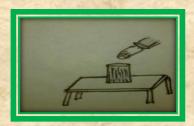


Fig 4 Sowing seeds

**Inference:** They learn life stages of a plant which would make them realise the life stages in their own life too.

#### 6.3 Peeling of potatoes, onion and citrus

Give them boiled potatoes and ask them to peel by hands

Give onions and ask them to cut the ends

With hands or knife, let them peel the skin

Offer citrus fruits like orange or sweet lime

Let them wash and peel the fruits by hands.



Fig 5 Peeling

Inference: Increase in concentration and patience levels.

### **6.4 Peeling of Flower Petals**

Let them pick the dry or fresh flowers from plants

Ask them to peel the petals from the flowers by hand slowly.



Fig 6 Peeling of flowers

**Inference:** While peeling, the fragrance from the flowers soothes their mind.

### 6.5 Strengthening Activity using watering tools

Provide a hosepipe and ask them to water the plants.



Fig 7 Watering plants

Inference: While watering during morning hours, they inhale fresh and pure air (oxygen).

## 6.6 Normal watering

Watering indoor or garden plants

With the help of rose can or hose, water the plants



Fig 8 Watering Plants

**Inference:** Makes them confident to do their work efficiently.

## 6.7 Spraying or Washing of fruits and vegetables

#### 6.7.1 Spraying

Keep the harvested fruits and vegetables on table

Give a sprayer filled with water

Let them spray water to keep the fruits and vegetables fresh.

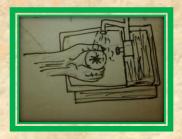


Fig 9 Spraying

#### 6.7.2 Washing

Harvest the fruits and vegetables

Take a bowl of water; dip and filter them for use.

**Inference:** They feel happy and fulfilled when they wash and make the produce and serve them to others.

### 6.8 Pruning

Provide secateurs

Let them prune the unwanted and diseased leaves

Let the same be collected and stored in the compost bins.



Fig 10 Pruning by secateurs

**Inference:** Cleaning the dried and unwanted leaves would help them to learn to prune the unwanted in their life too.

#### 6.9 Lawn Maintenance

Let them remove the fallen leaves and mow the lawn

Let them practise weeding.

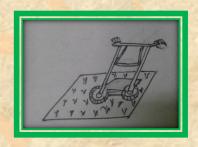


Fig 11 Lawn Maintenance

**Inference:** Mowing the lawn will reduce the energy levels released due to over secretion of adrenal glands when the subjects get angry. The green colour of the lawn would give a neutral Inference in their minds.

#### 6.10 Soil digging and raking

Provide a spade

Ask them to dig and make a pit

Let them practise the raking technique



Fig 12 Soil digging and raking

**Inference:** Drop in their energy will reduce their anger

### 6.11 Soil mixing and Pot filling

Take soil mixture in a right proportion

Ask them to mix it well

Let them fill it in a pot



Fig 13 Soil mixing, Pot filling

**Inference:** Lifting of pots and mixing soil gives strength to arms and shoulders.

### 6.12 Making terrarium

Give them a glass bowl

Put a pot mixture of various layers

Plant in it and decorate it



Fig 14 Making terrarium

**Inference:** Beautifying the place at indoor level increases the creativity

### **6.13 Plucking of Flowers**

Allow them to pluck flowers and make them arrange in a bowl.



Fig 15 Plucking flowers

**Inference:** Feeling the texture and smelling the fragrance of flowers will make them soft.

### 6.14 Flower - Garland making

Let them pluck the flowers from the garden and make a colourful flower garland.



Fig 16 Garland making

**Inference:** This will make them brisk especially for the people who have mobility issues.

### 6.15 Tray landscape

Give a colourful tray

Fill soil in the tray

Let them plant in it and decorate it.

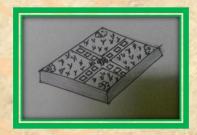


Fig 17 Tray Landscape

**Inference:** Gives aesthetic good-feel, cooling effect for the eyes and refreshes the mind.

### 6.16 Flower arrangement

Let them pluck flowers and arrange in a pattern.



Fig 18 Flower arrangement

**Inference:** This small activity of flowers as fillers gives a peaceful impact for the mental well-being.

### **6.17 Floating Flowers**

Give them an earthen bowl

Fill it with water

Let them float the flowers artistically inside it.



Fig 19 Floating Flowers

**Inference:** Changes their mood swings, when they have stress in their mind.

## 6.18 Preparing buttermilk

Give them a bowl of thick curd

Let them churn it and prepare buttermilk.

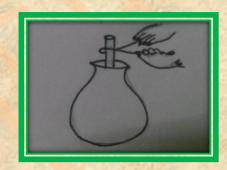


Fig 20 Preparing buttermilk

**Inference:** They learn about evolution and change. From one state to another, encourages them to move forward in life irrespective of their past.

#### 6.19 Floral card making

Provide them a chart and flowers of interest

Let them paste the flowers on the chart and make floral cards.

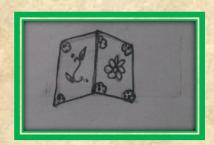


Fig 21 Floral card making

**Inference:** Innovative and creative thinking is triggered.

### 6.20 Drying of flowers

Let them collect flowers

They can dry them by pressing or silica method.



Fig 22 Drying of flowers

**Inference:** Periodic observation of colour changes increases their observation.

## 6.21 Dyeing of flowers

Let them collect dried flowers and pods

Let them dip them in coloured solution

Allow to dry and preserve.



Fig 23 Dyeing of flowers

**Inference:** Colouring the flowers using bright colours, cool colours and neutral colours will soothe the mind.

#### 6.22 Dry flower arrangement

Collect flowers and pods from trees and dry them

Let them arrange artistically.

Inference: Their innovative ideas are revealed.

### 6.23 Colour differentiation activity

Give them various colours of fruits, flowers, and vegetables

Let them separate them based on the colours and arrange them accordingly.

**Inference:** This is effective in children affected by autism. Helps in recovering memory - loss in subjects.

### 6.24 Weeding

Give them field full of weeds and a spade or hand hoe

Ask them to remove the weeds



Fig 24 Weeding

**Inference:** Removes whatever mental blocks they have in mind.

### 6.25 Painting of pots

Give them a pot

Let them paint a pattern of their own interest.

Fig 25 Pot painting

Inference: Creative ideas emerge while painting.

## 6.26 Extraction of Aloe vera gel

Give them suckers of Aloe vera

Let them scrape the gel with a knife.



Fig 26 Extraction of gel

**Inference:** They learn the importance of Aloe vera.

## **6.27 Preparing plant Name tags**

Let them write the name of the plant on a paper

Tie a thread in the corner of tag

Tie it in a plant accordingly



Fig 27 Name - tags

**Inference:** They learn the names of plants.

### 6.28 Coconut scrapping

Give them a coconut

Let them break it into two halves

With the help of scrapper, let them scrap it.



Fig 28 Coconut scrapping

**Inference:** Effective use of waste.

## 6.29 Collage of plant pictures

One plant picture is separated into many pieces

Arrange them orderly

Paste it on a paper

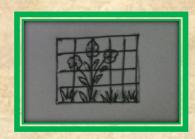


Fig 27 Plant collage

Inference: Increases their concentration.

## 6.30 Preparation of germination tray

Give them a germination tray or used teacup

Let them fill it with sand

Sow seeds in the tray or used teacup

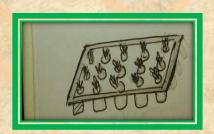


Fig 28 Germination Tray

**Inference:** Improves their concentration and observation skills.

### 6.31 Cutting of vegetables

Give them vegetables

Let them wash, peel and cut them accordingly.



Fig 29 Vegetable cutting

**Inference:** Inculcate the necessity to discard the decayed and unwanted.

#### 6.32 Salad making

Let them cut the vegetables and prepare salad.

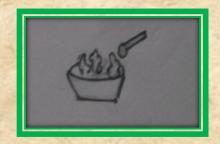


Fig 30 Salad Preparation

#### **Inference:**

Their new ideas of making salad can be revealed while doing this.

Serving this to others can create joy in their mind.

## 6.33 Making of Bouquets

Let them arrange the flowers, foliage, and fillers together

Let them use a transparent material to cover it

With colourful ribbons let them tie to decorate.



Fig 31 Bouquets

**Inference:** They derive the aesthetic satisfaction of arranging beautiful flowers.

### 6.34 Making of hanging basket

Let them fill the hanging baskets with media

Ask them to select drooping plants and arrange.



Fig 32 Hanging Basket

Inference: Develops beauty consciousness in them.

#### **6.35 Tracing Mirror Designs**

Let them trace a design on a glass plate

Allow them to do colourful paintings.

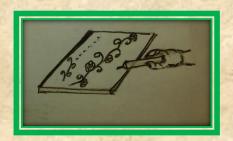


Fig 33 Mirror Designs

Inference: When sunlight falls on the paintings, the subject marvels at nature and its bounty.

### 6.36 Collection of pebbles and shells

Allow them to go to nearby riverbank or seashore

Let them collect the pebbles or shells of various shapes and sizes.

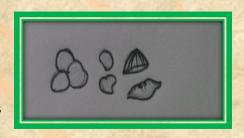


Fig 34 Pebble and Shell collection

**Inference:** Collection and preservation of the produce.

#### 6.37 Training a climber

Let them select any climber

Allow them to place long pole next to the climber

Encourage them to train the climber over it.

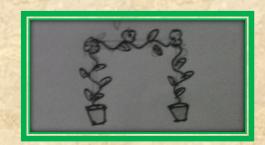


Fig 35 Training climbers

**Inference:** Training the climbers is a good way to calm down the disturbed minds.

#### 6. 38 Cleaning banana flower

Guide them to remove the outer petals from the flower

Let them remove the bud and the unwanted portions.

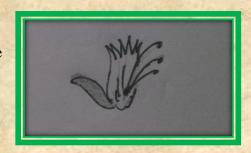


Fig 36 Cleaning Banana flower

**Inference:** Improves their concentration.

#### 6.39 Making of Herbarium

Let them collect the leaves and dry press them

Paste them in the herbarium sheet.



Fig 37 Herbarium

**Inference:** Preservation of extinct species and knowledge about plants' characteristics.

### 6.40 Activity of Vandalism

Let them Pluck, tear and prune plants

Allow breaking of the slightly damaged pots.



Fig 38 Vandalism

**Inference:** This is allowed only at the point of vandalism in the garden. This activity greatly helps in bringing out the bottled up emotions and unsaid anger in the subjects.

#### 6.41 Study of bark pattern

Let them look out for different types of trees

Let them remove a piece of bark from them

The bark patterns are traced on paper.



Fig 39 Study of Bark

Inference: Effective for sense organ deficient subjects.

## 6.42 Grafting

Let them select a mother plant

Cut a pencil thickness stem

Put it in a cup of water Take another plant

Give a cross cut at the lower end below the node

Tie and plant them in a polybag.

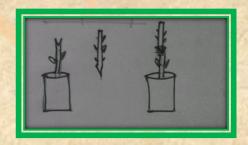


Fig 40 Grafting

**Inference:** Grafting two different species of plants will make them wonder at nature.

#### 6.43 Eggshell activity

Provide them broken eggshells

Give poster colours

Encourage them to draw designs on the eggshells

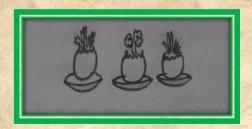


Fig 41 Painting eggshells

Inference: Art from waste.

### 6.44 Lady's Finger design

Give them some Lady's finger

Cut them in cross section

Dip them in poster colours and make designs.



Fig 42 Lady's finger design

**Inference:** This can be done in-group as well as an individual activity.

### 6.45 Making of Pomander Balls

Give them a lemon fruit

Let them prick the fruit with cloves

Let them tie it with a ribbon and hang it.

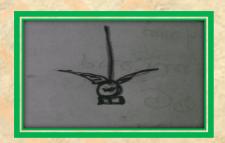


Fig 43 Pomander Balls

**Inference:** Traditional and superstitious beliefs can be discussed.

### 6.46 Potpourri

Give them dried rose and chrysanthemum petals

Let them remove the petals and bottle them

Add some aromatic oils and fragrance powder.



Fig 44 Potpourri

**Inference:** Creative ideas in arranging the potpourri can be encouraged.

#### 6.47 Making gift plants

Give them a pot with media filled in

Decorate with a satin ribbon and tie a wish card



Fig 45 Plant Gift

**Inference:** Such gift plants can be gifted to their friends/relatives on special days.

#### 6.48 Garden survey

Let them roam around the garden and make a survey.

**Inference:** Their change in mind could be observed while crossing different elements in garden. This would be useful in assessing the subjects.

#### 6. 49 Garden Room

Allow them to spend some time a garden room.

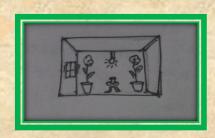


Fig 46 Garden room

**Inference:** Garden room keeps the minds of people balanced by providing a view at the neutral, cool, and bright colours.

#### 6.50 Kitchen Gardening

Let them design a kitchen garden

Make flat beds, ridges and furrows planting seeds and seedlings

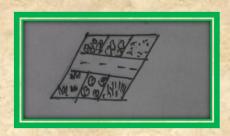


Fig 47 Kitchen Gardening

**Inference:** They can make organic produce by themselves.

GLOSSARY

Nandavanam – Flower Parks especially in Hindu temples

Thapovanam – Gardens in the hermitage of Hindu saints

Rajavanam -Royal Garden

Siddhar – Hindu yogis who have supreme intellectual and divine powers: is far away from materialistic world.

Gurukulas – The ancient Indian system of education in which students lived with the teachers for stipulated years.

Naturopathy – A system of medicine which cures body ailments balancing the diet, exercises and massage.

**Point of Vandalism** – A particular area in a garden, allocated for deliberate vandalism, in therapy point of view. The clients are allowed to break the already faulty pots or asked to axe the already fallen wood. This activity dissipates the negative energy in them thereby draining them of bottled up emotions.

\*\*\*\*\*\*

34