## Thesis Argument Organizer

Research Topic: Horticulture: How Gardening Affects our Minds and Bodies

Thesis Statement: The simple act of gardening can leave everyone with deep-rooted benefits, that anyone can ingrain into their everyday life.

## Essential Background Information for Introduction:

Horticulture is much more than what people it is. The impact gardening can have on one's physical and mental health is much more than you think. The concept of flowers is interesting because we give them to people when we have are apologizing, we give them to people when they have lost someone, and we give them to people to show our affection towards them. Flowers give comfort to the people receiving them and gardening is the same. Gardening can heal everyone if you allow yourself to be patient and open minded. Gardening does not care if you are angry, sad, overwhelmed, or happy it only requires you to use your hands and the rest is up to you.

Topic/Argument/Discussion 1: An introduction to what Horticulture is and the different branches that make up the topic of Horticulture. The details that make each branch is different from the other.	*Provide in-text citation! Howlett, Free man S. "Horticulture." Scholastic GO!, go.scholastic.com/content/schgo/L/ article/020/652/0206520-00.html. Accessed 2 Oct. 2019.
Explanation Horticulture is the art or practice of garden cultivation and management. It is the agriculture of plants for food, comfort, and beauty for decoration.	Evidence/Quotes: Horticulture includes orchards, ranches, plantations, glass houses, plastic tunnels—the whole gamut of areas, large or small, and tropical, subtropical, or temperate, in which plants may be successfully grown ("Horticulture" para. 2)
Explanation The first two branches of Horticulture are Pomology and Olericulture. The two branches focus on the growing process of fruits and vegetables.	Evidence/Quotes: (Fruit growing) includes all fruits (Vegetable growing)

Vegetables grown for consumption Certain fruits such as peppers, tomatoes, cucumbers, etc. are classified as vegetables. ("Horticulture" para. 5) There have been tremendous expansion in the vegetable industry ("Horticulture" para.5)

### Explanation

The next two branches are Floriculture and Ornamental Horticulture. These branches focus on the decorative side of Horticulture and how flowers and plants can be used in an ornamental way.

### Evidence /Quotes:

Varied range herbaceous, annual, and perennial plants ("Horticulture" para.6)

Both the cut flower and house plant production has increased ("Horticulture" para.6)

Floral areas have been incorporated into building structures's architecture ("Horticulture" para.6)

Ornamental landscapes in an ornate way Integral part of a well-planned building enterprise ("Horticulture" para. 7)

Trees, shrubs, evergreen, flowers using patterns and colors ("Horticulture" para. 7)

Lucrative market- plants are used in parks, private gardens, cemeteries

Topic/Argument/Discussion 2: Horticulture therapy regarding elderly people.

\*Provide in-text citation!

Chan, Hui Yu, et al. "Effects of Horticultural Therapy on Elderly' Health: Protocol of a Randomized Controlled Trial." *SpringerLink*, BioMed Central, 29 Aug. 2017,

# Explanation Evidence/Quotes: Horticulture therapy provides physiological, social and Due to a rapidly ageing population health benefits. in the world, it is increasingly pertinent to promote successful ageing strategies which are cost-effective, easily accessible, and more likely to be acceptable to the elderly. ("Abstract Background" para.1) Explanation Evidence/Quotes: Horticulture activities have been shown to reduce Older adults use gardening as a depression because of the garden landscape instead of an popular leisure time activity and urban setting ("Background" para. 2) exposure to plants has a proven positive outcome ("Background" para.1) While reducing negative energy horticulture therapy increases a positive mood. Horticultural therapy can also be very cost- effective and easily accessible Explanation Evidence /Quotes: Horticulture therapy offers people to reflect and think while Making pressed flowers- shows an being around nature and seeing is restorative properties. appreciation for nature Indoor gardening promotes the idea that anyone can do it the places they live. ("Intervention" para. 3) Visits to parks encourage participants to engage themselves in the outdoors and pay attention to the sounds and sights of nature,

appreciating it ("Intervention" para.3)

Viewing of natural spaces has been found to reduce anger and increase positive affect, due to the restorative effects of nature ("Intervention" para. 3)

Such active participation in the natural environment has been found to improve mood state where participants were less stressed and were invigorated by their experiences ("Intervention" para. 4)

Topic/Argument/Discussion 3: How Horticulture therapy can help people struggling with drug or alcohol addiction.	*Provide in-text citation! Cornille, Thomas A., et al. "HORTICULTURAL THERAPY IN SUBSTANCE ABUSE TREATMENT." Journal of Therapeutic Horticulture, vol. 2, 1987, pp. 3–7. JSTOR, www.jstor.org/stable/44243034.
Explanation Why Horticulture is used in substance abuse treatment and how does it affect the people.	Evidence/Quotes: The program has been highly successful in teaching valuable leisure time activities, improving self-esteem, and the belief they can have a positive impact on their environment ("Cornille" p.7)  Major issues in substance abuse treatment: Raising self esteem Act more responsible Establishing leisure time skills
Explanation The physical benefits of Horticulture include	Evidence/Quotes: Give the recovering addict physical sensations that are caused by physical activity instead of artificial means

	("Cornille" p.5)
	Physical work of gardening provides benefits to physical health
Explanation The emotional benefits include	Evidence /Quotes: Body awareness, body effectiveness, impact of action on environment, impact of action on self and others, impact of thinking and creativity ("Cornille" p.5)
	When the patient completes a task successfully in creates a sense of accomplishment This sense of effectiveness develops slowly ("Cornille" p.6)
	Through gardening the patient feels the benefits directly ("Cornille" p.6)
	Feeling accomplished for helping the environment, feeling more responsible for the caretaking of the gardens ("Cornille" p.6) Development of more creativity and problem solving skills ("Cornille" p.6)
	Increased personal pride from moving away from their addiction and using different substances as a means of coping with life into a new way of living ("Cornille" p.6)

Topic/Argument/Discussion 4:	*Provide in-text citation!
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How plants can have physical and psychological benefits. Hillside. "Psychological Benefits of Plants & Horticulture Therapy." "Science proves interacting with plants, both indoors and Hillside, Hillside Atlanta outdoors, is beneficial to physical and mental health. Organization, 18 Oct. Anyone of any age and skill level can enjoy the benefits of 2019, gardening and surrounding him- or herself with nature." hside.org/plants-improve-m (Hillside 1). ental-physical-health/. Explanation Evidence/Quotes: How plants can improve air quality. Adding plants to any room can help clean and purify the air quality (Hillside 4) Pollution can be several times higher indoors than outdoors (Hillside 4) Includes symptoms such as: dizziness, headaches, and throat irritation (Hillside 4) These are caused by toxins called volatile organic compounds and indoor plants can help removing them from the space (Hillside 4) Indoor plants can also reduce high doses of benzene within just 24 hours (Hillside 4) Explanation Evidence/Quotes: Working with plants gives Gardening promotes exercise, healthy eating, and decreases the risk of illness people the opportunity to exercise and improve their current condition. (Hillside 5) Children can use gardening as a fun way to exercise May not even realize they are exercising because gardening

can be fun for them (Hillside 6)

Gardening helps children improve their motor skills, overall strength, and combat obesity (Hillside 6) Gardening can encourage people to eat healthier and incorporate more fruits and vegetables (Hillside 7) Indoor plants benefits Increase comfort levels while decreasing the risk of getting sick (Hillside 10) Washington State University found plants reduced dust in rooms by as much as 20 percent. (Hillside 10) plants can successfully remove particulate matter from the air. Help add humidity to rooms (Hillside 10)

Less dry and dusty air (Hillside

10)

Reduces the risk of irritated airways, runny noses, and itchy eyes (Hillside 10)

Explanation The psychological benefits Evidence /Quotes:

improves Mood

Humans generally feel happier when surrounded by plants and nature

a survey conducted at four San Francisco Bay Area hospitals. (Hillside 12)

79 percent of patients said they felt more relaxed and calm, 19 percent felt more positive, and 25 percent felt refreshed and stronger after spending time in a garden. (Hillside 12)

Flower can also evoke positive emotions (Hillside 13) Increased happy feelings

Alleviate symptoms of depression (Hillside 14)

Topic/Argument/Discussion 5:
Gardening relating to mental health

"Having to care for plants is a good way to learn to look after and respect other living things and when we are small, it helps develop an appreciation of the magic of nature." \*Provide in-text citation!

Rayner, Sarah. "Petal Power: Why Is Gardening So Good For Our Mental Health?" *Psychology Today*, Sussex Publishers, www.psychologytoday.com /us/blog/worry-and-panic/2 01505/petal-power-why-isgardening-so-good-our-me ntal-health.

### Explanation

Allows us to be nurturers and stay connected to living things.

Evidence/Quotes:

Available to everyone (Rayner 3)

Any age, any gender, any race (Rayner 3)

People with mental health problems have a boost of self-esteem because they are

contributing to a transformative activity (Rayner 3) Keep us connected to other Living Things (Rayner 4) Reminds us that that we as a people aren't always the center of the universe (Rayner 4) Self absorption can contribute to depression (Rayner 4) Focusing on the outdoors can help us be less insular (Rayner 4) 2003 research concluded... (Rayner 5) Those in mental health units and prisons find group gardening beneficial (Rayner 5) Focuses on collective skills and aspirations (Rayner 5) rather than focusing on individual symptoms and deficits (Rayner 5) Explanation Evidence/Quotes: Gardening can help with relaxing and letting go. Gardening creates a sense of peacefulness (Rayner 6) Escaping from our social life and other people (Rayner 6) Sigmund Freud, the father of Psychoanalysis (Rayner 6) 'Flowers are restful to look at.

They have no emotions or

conflict,' Gardening allows us to be more carefree (Rayner 6) No worries about anything just focusing on the simple tasks (Rayner 6) Allows thoughts to move freely in your head (Rayner 7) easier to think and find solutions to what problems you're having, instead of being inside staring at a screen (Rayner 7) Explanation Evidence /Quotes: Helps when dealing with emotions Rituals help us deal with difficult emotions such as grief (Rayner 10) Gardening is a form of a ritual (Rayner 10) Involves the giving of life and the acknowledgement of it ending (Rayner 10) Symbolic of regeneration (Rayner 10) Not a coincidence that we create gardens of remembrance whether it be a bushes, trees, flowers, etc. (Rayner 10) > Vent anger and aggression Some aspects of gardening can allow us to let go of anger and aggression (Rayner 11) Cutting

Hacking

Chopping

Destruction in the garden leads to renewal and growth (Rayner 11)
Feel in control
Feeling overwhelmed is a common feeling (Rayner 12)

Gardening can give a sense of control (Rayner 12)
Letting go of trying to control every situation in life and focus on what you can control in the present, even if it is how your garden looks. (Rayner 12)

# Move #6 to #9

Topic/Argument/Discussion 6: Community gardens  Community gardens offer people and the community many benefits. They provide opportunities for both recreational gardening and food production, in underutilized spaces.  Community gardens are also great for the environment.	*Provide in-text citation!  "Benefits of Community Gardens." Benefits of Community Gardens   Community Garden Council of Waterloo Region, community-gardens.ca/conten t/benefits-community-gardens.
Explanation Overview of community gardens	Evidence/Quotes:  Provide opportunity for recreational
	gardening and food production (Benefits of Community Gardens 2)
	Great for the environment (Benefits of Community Gardens 2)
	Food locally grown reduces greenhouse gasses (Benefits of Community Gardens 2)

Support pollinators and different species (Benefits of Community Gardens 2) Bring people together (Benefits of Community Gardens 2) Engaging citizens in positive initiatives (Benefits of Community Gardens 2) Explanation Evidence/Quotes: Benefits for communities Build a welcoming and safer community (Benefits of Community Gardens 4) Improve the overall look of the community (Benefits of Community Gardens 4) > Reduce pollution (Benefits of **Community Gardens** 4) > Reduce pollinator habitats (Benefits of **Community Gardens** 4) > Reduce food insecurity (Benefits of Community Gardens 4) > Connect people to nature (Benefits of **Community Gardens** 4) > Educates people on where their food comes from (Benefits of Community Gardens 4) Meeting area where people can interact with each other and

	become closer (Benefits of Community Gardens 4)
Explanation Health benefits	Evidence /Quotes:  Addressing physical and mental stress (Benefits of Community Gardens 6)  Decreases stress and heals past trauma (Benefits of Community Gardens 6)  Saving money on food (Benefits of Community Gardens 6)  Financial benefit of growing your own fruit and vegetables (Benefits of Community Gardens 6)  Financial benefit of growing your own fruit and vegetables (Benefits of Community Gardens 6)  Enhancing meals and diet (Benefits of Community Gardens 6)  More physical activity and greater consumption of healthier food (Benefits of Community Gardens 6)

# Topic/Argument/Discussion 7:

Horticulture and gardening can happen anywhere in the world, even in developing countries

"A slowly but steadily growing phenomenon in Jordan, urban agriculture has vast potential for reducing poverty and improving food security, and it has the added benefit of greening and cleaning up more rundown sections of cities." (Whitman 2)

\*Provide in-text citation!

Whitman, Elizabeth. "In Home Gardens, Income and Food for Urban Poor." *Our World*, 2013, ourworld.unu.edu/en/in-home -gardens-income-and-food-fo r-urban-poor.

### Explanation

Urban agriculture in Jordan and the challenges that comes with

Evidence/Quotes:

Slowly growing phenomenon (Whitman 2)
Vast potential for decreasing poverty (Whitman 2)

Improves food security (Whitman 2)

Cleans up more rundown parts of cities (Whitman 2)

Difficulties
Land (Whitman 3)

pace for growing plants is very slim (Whitman 3) Water (Whitman 3)

Country suffers from perpetual water shortages (Whitman 3)

two-thirds of the 160,000 people who are food insecure live in cities (Whitman 4)

and 13 percent of the population lives below the poverty line. (Whitman 4)

For them, urban agriculture is not a complete solution, but it does alleviate poverty (Whitman 4)

Explanation How these challenges are tackled	Evidence/Quotes: Water scarcity in Jordan (Whitman 13)
	Using water on plants is a luxury for most people living there (Whitman 13)
	GAM has been teaching urban agriculturists efficient water usage techniques (Whitman 13)
	Grey water recycling systems (Whitman 13) irrigation techniques (Whitman 13) Rainwater catchment (Whitman 13)
Explanation Spreading the word	Evidence /Quotes:  Eighty-two percent of Jordan's population is urban (Whitman 18
	the vast majority of the population could become involved in urban agriculture and reap the same benefits (Whitman 18)
	extra income, better food security and access to fresh produce. (Whitman 18)
	A final report from RUAF on one of the GAM projects it funded was optimistic about urban agriculture's prospects not just in Amman but also throughout the rest of Jordan (Whitman 19)
	noting that urban agriculture "has become an integral part of the

agenda of the municipality" (Whitman 19)

"legislation has become more UA [urban agriculture] friendly." (Whitman 19)

Urban agriculture has gained support from higher levels of government (Whitman 20)

Topic/Argument/Discussion 8:
Horticulture and gardening in kenya

"Horticulture is a labour intensive sector that is important for human wellbeing: agriculture supplies protein, carbohydrates and staple crops - but we would have a pretty boring life without horticulture." (Secretariat 1) \*Provide in-text citation!

ISHS Secretariot. "What Is the Future of Horticultural Science in Africa?" What Is the Future of Horticultural Science in Africa? | International Society for Horticultural Science, 12 Jan. 2015.

www.ishs.org/news/what-futu re-horticultural-science-africa

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Explanation Benefits

Evidence/Quotes:

horticultural products are rich sources of vitamins, minerals and phytochemicals (Secretariat 4) Dark green leafy vegetables (Secretariat 4)

Yellow-fleshed fruit (pumpkins and mangoes) (Secretariat 4)

correct vitamin A deficiency (Secretariat 4)

a major cause of blindness in African children (Secretariat 4)

An FAO/World Health Organization (WHO) eating at least 400 g of fresh fruit and vegetables a day helps to alleviate: (Secretariat 4) micronutrient deficiencies (Secretariat 4) prevent chronic diseases associated with unhealthy urban diets and lifestyles (Secretariat 4) Explanation Evidence/Quotes: Kenya horticulture revenue emerged as the most important in the agricultural sector and generates over US\$300 million in foreign exchange earnings (Secretariat 6) total horticultural production is close to 3 million tonnes (Secretariat 6) The total value of horticultural exports in 2012 was Ksh87 billion (US\$ 1 billion) (Secretariat 6) Many citizens are aware of horticulture as a lucrative industry (Secretariat 6) increased number of Kenyan universities establishing departments dealing with horticulture and increased undergraduate enrollment in horticultural sciences (Secretariat 6) Explanation Evidence /Quotes: How horticulture helps with the challenges facing Africa local employment (Secretariat 7)

reduces food transport costs and pollution (Secretariat 7)

creates urban green belts (Secretariat 7)

recycles urban waste as a productive resource (Secretariat 7)

commercial production of fruit and vegetables provides livelihoods for thousands of urban Africans and food for millions more (Secretariat 7)

Topic/Argument/Discussion 9:

Example of botanical gardens

"The unobtrusive entry, tucked between Cabernet Sauvignon vineyards, belies the twenty-acre garden inside that holds a treasure-trove of plants. Adjacent to Sonoma Land Trust-protected lands and the Bouverie Audubon Preserve, this verdant garden is not only a world-class botanic garden, it is internationally recognized as home to one of the largest collections of scientifically documented, wild-sourced Asian plants in the Western World." (Londeree 1)

\*Provide in-text citation!

Londeree, Nanette.
"Quarryhill Botanical Garden:
A Sanctuary for Asian
Plants." Pacific Horticulture
Society,
www.pacifichorticulture.org/ar
ticles/quarryhill-botanical-gar
den-a-sanctuary-for-asian-pl

Explanation

Not a typical botanical garden

Evidence/Quotes:

ants/.

No expanses of lawn (Londeree 2) No neat hedges enclosing specimen plants (Londeree 2)

No sculpted shrubs (Londeree 2)

No massive displays of seasonal flowers (Londeree 2)

informal, naturalistic woodland, with towering trees and magnificent shrubs, cloaks the steep, hilly terrain (Londeree 2)

Explanation Using Asian plants	Evidence/Quotes: Types of Asian flowers (Londeree 2) Roses (Londeree 2) Camellias (Londeree 2) Rhododendrons (Londeree 2) Magnolias (Londeree 2) Lilies (Londeree 2)
	create a living museum of temperate Asian plants (Londeree 2)
	Majority of the plants were started from seeds and none were planted in the ground before 1990 (Londeree 2)
	Dr Peter Del Tredici, senior research scientist at the Arnold Arboretum, Harvard University, and a Quarryhill advisory board member (Londeree 2)
	"wonderful, eclectic collection of temperate Asian plants, planted to create a habitat; it's not something you're used to seeing in a dry mediterranean climate." (Londeree 2)
Explanation Expedition to asia	Evidence /Quotes: The force behind the development of the gardens was Tennessee native Jane Davenport Jansen (Londeree 4)
	A new non-profit organization was established for the temperate Asian woodland garden that Jansen named Quarryhill.  (Londeree 4)

begin a series of expeditions to Asia to collect seed and herbarium samples for her garden (Londeree 5)

Quarryhill participated in dozens of expeditions; twenty to China, six to Japan, and one each to India, Nepal, and Taiwan, bringing back rare seeds to nurture in an on-site nursery and ultimately plant in the garden (Londeree 5)

Topic/Argument/Discussion 10:
Different gardens for different purposes.

Chef and food activist, Shakirah Simley writes about sanctuary as "the dire need to carve out physical, psychological, and social food spaces for those constantly on the periphery."

\*Provide in-text citation!

Bennett, Leslie. "Black Sanctuary Gardens." *Pacific Horticulture Society*, 2019, www.pacifichorticulture.org/articles/b lack-sanctuary-gardens/.

Explanation
Oakland, California and Leslie Bennet

Evidence/Quotes:
Oakland, California (Bennett 1)
Leslie Bennett (Bennett 1)

shifting demographics and massive displacement (Bennett 1)

The artistic work aims to work within the realm of gardens and gardening to bring aesthetic refuge, nourishment, and cultural connection to black women (Bennett 1)

The gardens continue to shape and preserve the Oakland community (Bennett 1)

Bennetts interests in environmentalism, design, and cultural preservation inspired her

	creative work of connecting and the land on which they live (Bennett 2)
Explanation Black Sanctuary Gardens	Evidence/Quotes: Black Sanctuary Gardens (Bennett 3) Inspired by Alice Walker's naming of the garden as a site for black women's spirituality, creativity, and artistic work (Bennett 3)
	Created the Black Sanctuary Gardens in 2018
	dedicated to black women as an act of caring, appreciation, and support for the many roles that black women play within our communities (Bennett 3) Where?
	will be installed in front and back yards, as well as historically black community spaces (Bennett 3)
	to impact the lives of black women, and the family, friends, neighbors, and the communities they live with and support (Bennett 3)
	Landscape preservation connecting with individuals and communities (Bennett 4)
	The sanctuary is ingested by all five senses, molding mental and physical space with living material (Bennett 4)
Explanation Who the gardens are for and why they are important.	Evidence /Quotes: Individuality (Bennett 4)
	black women and black spaces have the opportunity to define themselves and their stories, reshaping the

narrative we tell ourselves and also how we are perceived by others (Bennett 4) The audience Black women who make contributions to the Oakland community (Bennett 5) Teachers (Bennett 5) Artists (Bennett 5) small business owners (Bennett 5) cultural community leaders (Bennett 5) Example Turning a backyard into a productive garden that includes plants that reflect certain cultural heritage (Bennett 6) Black Sanctuary Gardens also received a matching grant of \$8,000 from the East Bay Fund (Bennett 6)