Inquiry Project Design Plan

Teacher/Designer Names: Erin theresa Gorman	
Name of Project: The Pumpkin Patch	**Grade Level: PreK**
Est Launch Date: October/November	**Est Duration (in weeks): 4- weeks and Revisit in the Spring**
Disciplines Involved: Science (Nutrition and Botany), Social Studies (Community and History of Yonkers	
Problem Statement: Food gardens provide for homes and communities. Historically, Yonkers had gardens and farms that provided for the people who lived here. There are not as many gardens supplying food as there used to be. Some of the gardens are now in water (hydroponics) instead of soil. We can design a plant garden that supplies food. (Phillips Manor – 3 sisters idea, corn/beans/pumpkins - PM shows how it used to be)	

STAGE 1: DESIRED RESULTS

Big Idea: Sustainabily in our Community

Enduring Understandings:	**Essential Question(s):** (MEANT TO BE SHARED WITH STUDENTS)
∉ Living things grow and change. ∉ Living things have needs to survive ∉ People lived in Yonkers in the past and in the present day ∉ Farming and growing food looked different in history in Yonkers ∉ Young people, even in PreK, can influence others and make a difference	∉ How can we contribute to the needs of our community? ○ How did people live in Yonkers before us? ○ How was food grown when Yonkers had more gardens and farms?

Established Goals (Standards, Performance Indicators, Learning Goals):
*choose relevant standards to unit/project plan timing and learning goals; do not need to use all disciplines below.
** unpack into SWK and SWBAT under identified standards as this will lead to aligned assessment design

Science Standards:

P-LS1-1. Observe familiar plants and animals (including humans) and describe what they need to survive.

P-LS3-1. Develop a model to describe that some young plants and animals are similar to, but not exactly like, their parents. [Clarification Statement: Emphasis is on observation and pictorial representations of familiar plants and animals

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Social Studies Standards:
Graphic Reasoning
Engage NY SS Practice: Describe how environment affects his/her activities.

SWK: that their environment affects their activities
SWBAT: Describe how environment affects his/her activities

Retell an important life event in sequential order.

K.7a Climate, seasonal weather changes, and the physical features associated with the community and region all affect how people live.
SWK:

- Definitions or understands of what the words climate and weather
- that there are weather differences for each season
- The physical features of our community (school or Yonkers)

SWBAT:

- describe and give examples of seasonal weather changes
- illustrate how weather affects people and communities

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Economic Systems K.9 People have economic needs and wants. Goods and services can satisfy people's wants. Scarcity is the condition of not being able to have all of the goods and services that a person wants or needs.

K.9a A need is something that a person must have for health and survival, while a want is something that a person would like to have.
 Students will identify basic needs (food, clothing, and shelter).
 Students will distinguish between a need and a want

K.9b Goods are objects that can satisfy people's needs and wants; services are activities that can satisfy people's needs and wants.
 Students will identify examples of goods and services.

K9.c Scarcity is the condition of not being able to have all of the goods and services that a person wants or needs.
 Students will identify examples of scarcity

Mathematics Standards:

ELA Standards:

Technology Standards:

- **NYS Computer Science and Digital Fluency: (K-1 pdf)**

K-1.DL.4 Use a least one digital tool to create a digital artifact.

- **ISTE:**

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- 4.c Students develop, test and refine prototypes as part of a cyclical design process.

Social Justice Standards:

Diversity 8. Students will respectfully express curiosity about the history and lived experiences of others and will and will exchange ideas and beliefs in an open-minded way

Diversity 8 DI.K-2.8 I want to know about other people and how our lives and experiences are the same and different.

Other (Art, SEL, etc):

Links to Standards/Reference Frameworks:
NGSS, **NGSS by DCI** **Nat'l C3 SS Framework**, **NYS K-8 SS Standards**, **Common Core**, **ISTE**, **Learning for Justice Social Justice Standards**, **CASEL SEL Framework**, **NYS CS and Digital Fluency**

STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative:

Goal: *Provide a statement of the task. Establish the goal, problem, challenge, or obstacle in the task.*
The Goal would be for our children to watch the cyclical process of Pumpkin groiwth

The Students would produce a replica or model of the stages of pumpkin growth and find a location for the vegetable (pumpkin)

- Turn into a narrative or short paragraph of what your goals are for learning: Living things grow and change.
- Living things have needs to survive
- People lived in Yonkers in the past and in the present day
- Farming and growing food looked different in history in Yonkers
- Young people, even in PreK, can influence others and make a difference

Role: *Define the role of the students in the task. State the job of the students for the task.*

Scientists, engineers, nutritionist, biologists (Saunders bio/chem maybe), botantist, historians, explorers, gardeners

Audience: *Identify the target audience within the context of the scenario.*

Authentic Audience: Classroom Community and Family Audiences

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Situation:

Food gardens provide for homes and communities. Historically, Yonkers had gardens and farms that provided for the people who lived here. There are not as many gardens supplying food as there used to be. Some of the gardens are now in water (hydroponics) instead of soil. We can design a plant garden that supplies food.

The students will study the growth of pumpkins in a real life setting and relate the growth to the " need mindset" in relation to sustaining life through nutrition and

Product(s): *Clarify what the students will create and why they will create it.*

- Create the vegetable/pumpkins with the 3D printers
- After harvesting, create products that their vegetable (pumpkin) would be the source.

Standards (criteria for success): *Provide students with a clear picture of success. Identify specific standards for success.*

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Other Evidence/Assessments:

Students will create a map of the Philipse Manor location and where the sources of life are located .

STAGE 3: THE LEARNING PLAN:

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Learning Activities

(potential layout below. Can be daily, divided by periods, or even using the Engineering Design Process to divide into stages such as Ask, Imagine, Plan, Create, Improve)

Week 1
Learning Goals:
Learning Events:
Formative Assessments:
Notes/Resources:
Week 2
Learning Goals:
Learning Events:
Formative Assessments:
Notes/Resources:

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Week 3
Learning Goals:
Learning Events:
Formative Assessments:
Notes/Resources:
Week 4
Learning Goals:
Learning Events:
Formative Assessments:

Notes:

Students will know that people inhabited our communities before our families and had certain life sustaining needs like food and homes!	**Students will be able to recognize the stages of pumpkin growth . (seed, vine, flower blossom, fruit development.**

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Students will know that our food sources are grown and provide nutrients like vitamin A and, Vitamin B, fiber potassium and vitamin C (heart health/ hypertension) and zinc	**Students will learn how other community life and environmental conditions may helps in the pollination process.** **Videos:** **https://youtu.be/AB-dfi_0TsQ** **Pumpkin Hill (read aloud)** **https://youtu.be/w5UIzdcx8YQ** **Legend of the Three sisters (felt board)** **https://youtu.be/nXPfH5k08R0** **https://youtu.be/I3cc2QeSfWw**