Inquiry Project Design Plan

Teacher/Designer Names: Margaret Masi, Michele Sochan	
Name of Project: DiChiaro Garden	**Grade Level: 4th grade**
Est Launch Date: September 2022	**Est Duration (in weeks): 5**
Disciplines Involved: Math, Reading, Writing, Science	
Problem Statement: **All living organisms need care in order to survive and flourish.**	

STAGE 1: DESIRED RESULTS

Big Idea: Collaboration, Community, Change

Enduring Understandings:

- Students can initiate change in order to improve the community.
- Structures have an impact on the ability to collaborate.
- Certain structures ca n make collaboration easy or difficult
- All living things have basic needs.
- Students will acquire a basic understanding of invasive species that may harm the environment.

Essential Question(s):
(MEANT TO BE SHARED WITH STUDENTS)

- How can we improve the aesthetics of our school community?
  - How can collaboration improve the culture of our school?
  - How can research and planning affect the success or failure of the project?
  - How can we care for and maintain the garden to reflect our respect of the community and school?

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:
SWBAT: Research and plan a garden that supports plant survival, growth, and reproduction.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Mathematics Standards:
SWBAT: Measure units in the garden to determine materials needed, as well as cost. (Seeds, soil, plants, etc.)

NY-4.MD Measurement and Data

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Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

ELA Standards:
SWBAT: Read, write, research and present information learned about living things.

READING STANDARD 1
Read closely to determine what the text says explicitly/implicitly and make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Draw evidence from literary or informational texts to support analysis, reflection, and research.

STANDARD 6
Conduct research based on focused questions to demonstrate understanding of the subject under investigation.

Speaking and Listening Anchor Standards:
STANDARD 4
Present information, findings, and supporting evidence so that listeners can follow the line of reasoning. Ensure that the organization, development, and style are appropriate to task, purpose, and audience.

STANDARD 5
Make strategic use of digital media and visual displays to express information and enhance understanding of presentations.

Technology Standards:

SWBAT: Learn how to use a drone to document the physical appearance of the garden and how change takes place at various stages.

NYS Computer Science:

4-6.CT.2 Collect digital data related to a real-life question or need.
Clarifying Statement: The emphasis is on using digital tools to collect and organize multiple data points.

4-6.DL.2 Select appropriate digital tools to communicate and collaborate while learning with others.
Clarifying Statement: Students' progress from understanding that people use digital tools to communicate and collaborate to how they use the tools. Communication and collaboration should be purposeful and, when possible and appropriate, with an authentic audience.

Other (Art, SEL, etc):

NA

Links to Standards/Reference Frameworks:
NGSS, NGSS by DCI Nat'l C3 SS Framework, NYS K-8 SS Standards, Common Core, ISTE,

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Learning for Justice Social Justice Standards, **CASEL SEL Framework**, **NYS CS and Digital Fluency**	
Students will know (SWK):	**Students will be able to do (SWBAT):**
The internal and external structures of plants and animals that function to support survival, growth, behavior, and reproduction. How to define a simple design problem that includes specified criteria for success and constraints. How to measure and convert measurements. How to make inferences from texts. How to analyze and present data through digital tools.	**Read, write, research** and **present** information learned about living things. **Research** and **plan** a garden that supports plant survival, growth, and reproduction. **Use** a drone to document the physical appearance of the garden and how change takes place at various stages. **Analyze** units in the garden to determine materials needed, as well as cost. (Seeds, soil, plants, etc.)