Inquiry Project Design Plan

Teacher/Designer Names: Carol Phillips-Taylor	
Name of Project: Building Bridges	**Grade Level: SPED 1&2**
Est Launch Date: November 2022	**Est Duration (6 weeks):**
Disciplines Involved: Social Studies / Science /ELA	
Problem Statement (Students may surprise you with different ideas, but where do you think the problem focus could be) **The problem of not having bridges or maintaining them will affect the long-term transportation of goods and services that are vital for the needs of the people.**	

STAGE 1: DESIRED RESULTS

Big Idea: Structures and Functions

Enduring Understandings:	**Essential Question(s):** (MEANT TO BE SHARED WITH STUDENTS)
∉ Different levels of support are needed for the long-term maintenance of our infrastructure. ∉ Infrastructure is necessary for the transportations of goods and services to supply the needs/ wants of the people.	∉ How do structures help us function? ∉ How do we support our structures? ∉ What are our responsibilities to our structures?

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:
K-2-ETS1-1.
Students who demonstrate understanding can:
Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

2-PS1-1.
Students who demonstrate understanding can:
Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. [Clarification Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.]

2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.* [Clarification Statement: Examples of properties could include, strength, flexibility, hardness, texture, and absorbency.]

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[Assessment Boundary: Assessment of quantitative measurements is limited to length.]

Social Studies Standards: K-1-2
Ask geographic questions about where places are located and why they are located there, using location terms and geographic representations, such as maps, photographs, satellite images, and models. Describe where places are in relation to each other.

Mathematics Standards:
NY-1.MD Measurement and Data
Measure lengths indirectly and by iterating length units
. 1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.
Coherence: NY-K.MD.2 → NY-1.MD.1 → NY-2.MD.4 2.
Measure the length of an object using same-size "length units" placed end to end with no gaps or overlaps. Express the length of an object as a whole number of "length units."

ELA Standards:
Comprehension and Collaboration

1SL1: Participate in collaborative conversations with diverse peers and adults in small and large groups and during play. 1SL1a: Follow agreed-upon rules for discussions and participate by actively listening, taking turns, and staying on topic. 1SL1b: Build on others' talk in conversations by responding to the comments of others through multiple exchanges. 1SLc: Ask questions to clear up any confusion about topics and texts under discussion. 1SLd: Consider individual differences when communicating with others.

Technology Standards:

K-1.CT.10 Collaboratively create a plan that outlines the steps needed to complete a task. Clarifying Statement - The focus should be on collaboratively identifying a planning process which can be written, drawn, or spoken.

Social Justice Standards:

NA

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, 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):**
SWK • **Why people need to make changes to structures when situations occur that can endanger the safety of individuals and properties.**	**SWBAT** • **Ask appropriate questions that can lead to a solution of the problem.** • **Make meaningful observations**

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• **They will understand that through the development of new and improved tools problems can be solved.** • **How the geography of a place affects the development of structures and functions for their long-term survival.** • **That different structures have different functions, eg. huge bridges carry massive weight while smaller ones carry less weight.**	**using videos, photographs and models.** • **Gather background knowledge on the history of bridges with a focus on, eg. The Mario Cuomo Bridge.** • **Ask relevant questions regarding the locations of bridges and why they are in these locations.** • **Describe bridges using models, photographs and satellite images and where they are located.** • **Tell why these structures are different in terms of size and location.**