Teacher/Designer Names: Devlin	
Name of Project: The Impact of Urban Design	**Grade Level:** 12th
Est Launch Date: September 26, 2023	**Est Duration (in weeks):** 2
Disciplines Involved: Science, Social Studies, Health	
Problem Statement: Humans often design for purposes other than maintaining a balanced ecosystem, and those decisions have disparate impacts on different communities.	

STAGE 1: DESIRED RESULTS

Big Idea: Equity & Community

Enduring Understandings:

- Human decisions have consequences
- Equity is a responsibility of all
- Managing environmental outcomes is a necessity for species' survival

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

- How does urban planning impact health and economic outcomes for neighborhoods?
- How effective have efforts to mitigate inequities from past policies been?
- How can we improve design for the needs of humans and other living things?

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:
HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

Social Studies Standards:
12.G5 PUBLIC POLICY: All levels of government—local, state, and federal—are involved in shaping public policy and responding to public policy issues, all of which influence our lives beyond what appears in the Constitution. Engaged citizens understand how to find, monitor, evaluate, and respond to information on public policy issues

12.E3 THE IMPACT OF AMERICAN CAPITALISM IN A GLOBAL ECONOMY:.... Economic policy makers face considerable challenges within a capitalist system, including unemployment, inflation, poverty, and environmental consequences....

Technology Standards:

NYS Computer Science and Digital Fluency:
9-12.DL.2 Communicate and work collaboratively with others using digital tools to support individual learning and contribute to the learning of others

ISTE:
2.5B: Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.

Social Justice Standards:
JU.9-12.12: I can recognize, describe and distinguish unfairness and injustice at different levels of society

Links to Standards/Reference Frameworks:
NGSS, **NGSS by DCI** **Nat'l C3 SS Framework**, **NYS K-8 SS Standard**s, **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):
- The impact of urban design on communities throughout Yonkers - The effectiveness of existing efforts to mitigate the effects of urban design on communities - How to design solutions to mitigate the effects of climate impacts	- Research and evaluate the impact of urban design on people (focusing on health and economic opportunities and outcome) - How to design proactive solutions and predict its impact on the community - Present their findings through writing, modeling, web design, and presenting

STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative:

Goal: Students will develop solutions to mitigate the effects urban planning had on our community collaboratively.

Role:
- City Planners (Engineers)
- Web Designers
- Digital Architects
- PR Team (Presenters)
- Communicatons Team (Writers)

Audience: A member (or entire) Yonkers City Council

Situation: The development of Yonkers is both the result of individual and group efforts and intentional urban planning. Key decisions, from where to locate railroads and highways to what incentives to offer businesses to locate a facility in a specific neighborhood, are often determined by policies set by elected politicians. Those decisions have impacted communities in different ways, from health outcomes to economic opportunities. We must design solutions to help mitigate the consequences of those decisions to ensure equity throughout our city.

Product(s): *These will be done by smaller teams within the class based on student interest and abilities.*
- Design solutions to mitigate the effects of urban planning on our community
- Create a digital or analog 3D model of proposed solutions
- Design a website to promote the effort
- Write summaries of the need and projected impact of the solution(s) for the community (embed in website)
- Present campaign to City Council

Standards (criteria for success):

- ❏ Process Rubric
- ❏ Modeling Rubric
- ❏ Web Design Rubric
- ❏ Argumentative Writing Rubric (Teams)
- ❏ Presentation Rubric

STAGE 3: THE LEARNING PLAN:

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: Students will understand the need for urban redesign. Students will focus on a specific aspect (heat mitigation, housing/gentrification, green infrastructure, etc.). Students will experiment with design tools and decide which group to join.

Learning Events:
Monday**:** launch, current events
Tuesday: student and community experiences – real testimonials about what the community needs
Wednesday: Other urban solutions around the country and world (all)
Thursday: Digital Playground (web design)
Friday: Digital Playground (CoSpaces & TinkerCad)

Formative Assessments:
1. Define the issue (circle map)
2. Impact Problem(s) have on community (Multiflow Map)
3. Taxonomy of existing solutions based on specific problems (Tree Map)

Week 2

Learning Goals: Students will break into specific roles. I will coordinate ambassadors to check in with other groups. Students will become experts in their field and complete their product. Culminating event will be presenting it to a member of the Yonkers City Council.

Learning Events:
Monday: Break into expert groups, establish norms, set agenda for week, begin creating
Tuesday: Creation Day*
Wednesday: Formative check-in, ambassadors meet, debrief with expert groups
Thursday: Adjust and improve products based on feedback*
Friday: present! (Follow-up reflection day on Monday)

*May be extended if needed and time allows

Formative Assessments:
1. Agenda & Norms setting
2. Ambassador Check-in & Debrief
3. Product Rubric self-evals