Inquiry Project Design Plan

Teacher/Designer Names: Michelle Latzen	
Name of Project: Recyling	**Grade Level: 12**
Est Launch Date:	**Est Duration (in weeks):**
Disciplines Involved: ELA, Science, Tech, Capstone Project	
Problem Statement: How can we create awareness and take action to make the recycling program more accessible and more effective in Roosevelt High School ECS?	

STAGE 1: DESIRED RESULTS

Big Idea: Change

Enduring Understandings:	Essential Question(s): (MEANT TO BE SHARED WITH STUDENTS)
- You can use your voice to make indiviual and collective change, impact your society, locally and globally - Sustainble change takes invidual, local, and large scale efforts.	- What are some ways that we can have our voices heard in order to make changes? - How can we differentiate between large scale, individual and local scale change? - What current issue (the need for recycling) need to be addressed to make changes in a local, county or global level? - How can we address issues that impact us as a community; specifically recycling? - How do actions and regulations play a role in public policy? - How can we determine the best way(s) to take action?

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

ELA Standards:

Backward Stages: 1. Identify desired results. 2. Determine acceptable evidence. 3. Plan learning experiences and instruction.
Adapted from Wiggins & McTighe (2005) Understanding by Design (UbD)
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11-12R1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly/implicitly and make logical inferences, including determining where the text is ambiguous; develop questions for deeper understanding and for further exploration.

SWK:
- How to annotate a text
- How to cite evidence from a text

SWBAT:
- Develop questions based on the texts
- Use evidence to answer questions

11-12W1: Write arguments to support claims that analyze substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

SWK:
- How to develop a claim based on texts
- Understand the text (based on pre-reading and annotations)
- How to find relevant and sufficient evidence

SWBAT:
- Develop a claim based on text
- Use relevant and sufficient evidence to support the claim

Technology Standards:

NYS Computer Science and Digital Fluency:

9-12.CT.10: Collaboratively design and develop a program or computational artifact for a specific audience and create documentation outlining implementation features to inform collaborators and users.

SWK:
- How to work together to brainstorm ideas
- How to create computational artifacts to educate the RHS community about the importance of recycling

SWBAT:
- Collaborate and create a design to inform the community
- Determine the audience that they are writing for and choose an appropriate platform to expose the community

ISTE:

1.7 Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Social Justice Standards:

Diversity 6 DI.9-12.6 I interact comfortably and respectfully with all people, whether they are similar to or different from me.

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SEL Standard:

1B.3a. Identify how their personal strengths, challenges, experiences, and identities influence choices and outcomes.

1B.3b. Explore and assess school and community assets and opportunities to identify resources that will contribute to their identity development.

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:	**Students will be able to…**
- Various regulations in regards to recycling nationwide, as well as locally - A variety of community resources that help with recycling in RHS - The importance of working together to keep the program functional - The jobs and responsibilities of the A-Team with the school recycling program - The roles and responsibilities of the school population with the school recycling program	- Understand the importance of recycling - Identify the need for recycling in schools - Describe the current program at Roosevelt ECS - Research and write about different recycling programs - Identify if the school is fulfilling the goals of the current program - Make the Roosevelt community aware and involved in the program

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STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative:

<u>**Goal:**</u> *Provide a statement of the task. Establish the goal, problem, challenge, or obstacle in the task*

- Understand our role in the community
- Identify issue of recycling in our communities; specifically the Roosevelt HS campus

<u>**Role:**</u> *Define the role of the students in the task. State the job of the students for the task.*

Students will understand how recycle plays a role globally and locally. They will collaborate with the student in the A-Team to continue and grow the current Recycling Program.

<u>**Audience:**</u> *Identify the target audience within the context of the scenario.*

- Special Education students completing the Capstone Project
- The Roosevelt High School A-Team
- The General Education students
- Administration

<u>**Situation:**</u> *Set the context of the scenario. Define the narrative.*

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

- Students will complete a Canva Presentation to discuss the recycling program and how it was changed to be more beneficial to the school community with the goal of "recruiting" more students to be involved.

- Students will complete a Website Presentation (through Canva) to discuss the recycling program and how it was changed to be more beneficial to the school community with the goal of "recruiting" more students to be involved.

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

- ❏ Students will be able to articulate how recycling plays a role in society
- ❏ Students will be able to understand and explain how recycling is an individual, small scale and large scale problems
- ❏ Students will be able to work with the Roosevelt A-Team program with recycling to have a hands-on experience

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:

- Read articles about recycling (falling under the topic ECOLOGY)
- Collect information from the articles
- Analyze why the articles are significant
- Identify personal connections to the issues
- Select one issue to tackle for the County Solutions Project
- Compare the roles and effectiveness of three types of actors (individuals, groups and the government)
- Suggest solutions for hypothetical county problems
- Generate a list of actions the three types of actors could take to help address the class problem or issue

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Learning Events:

Warm-Up:
To assess where the students are in terms of knowledge about recycling, have students create a meme Meme Maker

Scavenger Hunt:
Prepare for the scavenger hunt by preparing clues to hidden recyclable materials throughout the yard or common area within your school. Students can sort their findings into the appropriate recycling bins.

Turn and talk:
- Video: Why it will take more than basic recycling to cut back on plastics?
- What is recycling?
- What is the difference between trash and recycling?

Articles:
- Overview- Benefits of Recycling
- PBS Inventing Beyond Recycling
- School Recycling Made Easy
- New York Times- Trash or Recycling?

Groups:
Recycling Sorting Game:
Printable recycling sorting game. To play, you will use one bin for garbage and one bin for recycling. You will pick up a picture card and place a token in the correct bin. The team to get the most correct wins.

Recyling Web Quest:
Recycling Web Quest
This activity will provide students the opportunity to explore The U.S. Recycling System website. You will have students write down the answers to several questions guiding their online research. You can have them respond to these questions in a notebook.

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Formative Assessments:

Reflection form/Exit ticket
NYS Capstone Rubric

Week 2

Learning Goals:

- Read news articles to understand the problem the class has selected
- Analyze the articles using 5W and H
- Summarize the problem
- Compare the roles and effectiveness of three types of actors (individuals, groups and the government)

Learning Events:

Writing Prompts: Students can choose 3 different prompts. When complete they turn and talk with a partner
1. What would happen if everyone stopped recycling?
2. What would happen if everyone recycled everything that can be recycled?
3. In your own life, what different ways can you reduce and reuse?
4. How is composting different from recycling?
5. What happens if there is no more room in our landfills for trash to go?
6. How would you convince someone who doesn't think recycling is important to start?
7. Are there any ways that nature recycles its own resources?
8. How is litter different from pollution? Is one worse than the other?
9. What are some items that can be recycled, but you still usually don't?

YouTube: PBS New Hour about Recycling:
1. What are some problems with current recycling methods?
2. Why does Roland Geyer believe that recycling might be part of the plastic problem?
3. Do you agree with Geyer? Why or why not?
4. Describe at least three solutions for the plastic problem that were discussed in the video.
5. What impact do you think those solutions will have?

The Importance of School Recycling
Students will read and annotate the article
Students will Turn and Talk

Formative Assessments:

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NYS Capstone Rubric

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Week 3

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Learning Goals:

- Suggest solutions for hypothetical county problems
- Generate a list of actions the three types of actors could take to help address the class problem or issue

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Learning Events

Students will brainstorm activites before completing final project on Canvo

- Clearly define the problem
    - What's happening countrywide? (Think back to class discussions)
    - What's happening in Yonkers?
    - What's happening in Roosevelt ECS?

- Make an argument for the importance of the problem/ issue (Why is it important we are aware of this issue?

- What are some statistics about recycling?

- Discuss a variety of actions to address the issue

- Supply evidence for civic action
    - What are some current actions taking place?
    - What are different states doing to address this issue?
    - How is the federal government helping?

- What are some suggestions YOU should use to combat this issue?
    - Look at Change.org

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Activity:
How does recycling work?
Students can create a virtual tour of a recycling plant.
Students can use AR/VR technology or Canva

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Week 4

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Learning Goals:
SWBAT:

- Identify a variety of strategies for building public awareness and support

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- Evaluate the best strategies to use for different objectives
- Create components of an action campaign

Learning Events:

- Students will take information gathered through reading (and annotating), videos, class discussion and individual activities to create final projects

Formative Assessments:

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Recyclable Art Challenge
Students work together on design teams to put together their own art projects using recycled materials. It would be amazing to put together an art show and have students and family members vote on their favorite pieces.

Reflection form/Exit ticket
NYS Capstone Rubric