

Backwards Design Unit Planning

**New York City Department of Education
Magnet Program District 25 & 28**

Van Wyck M.S. 217Q

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Title: Exploring Professions that Honor the Earth

Backwards Design Unit Planning

Essential Question: *Are You a Citizen of the World?*

Suggested Time Frame: 4 weeks

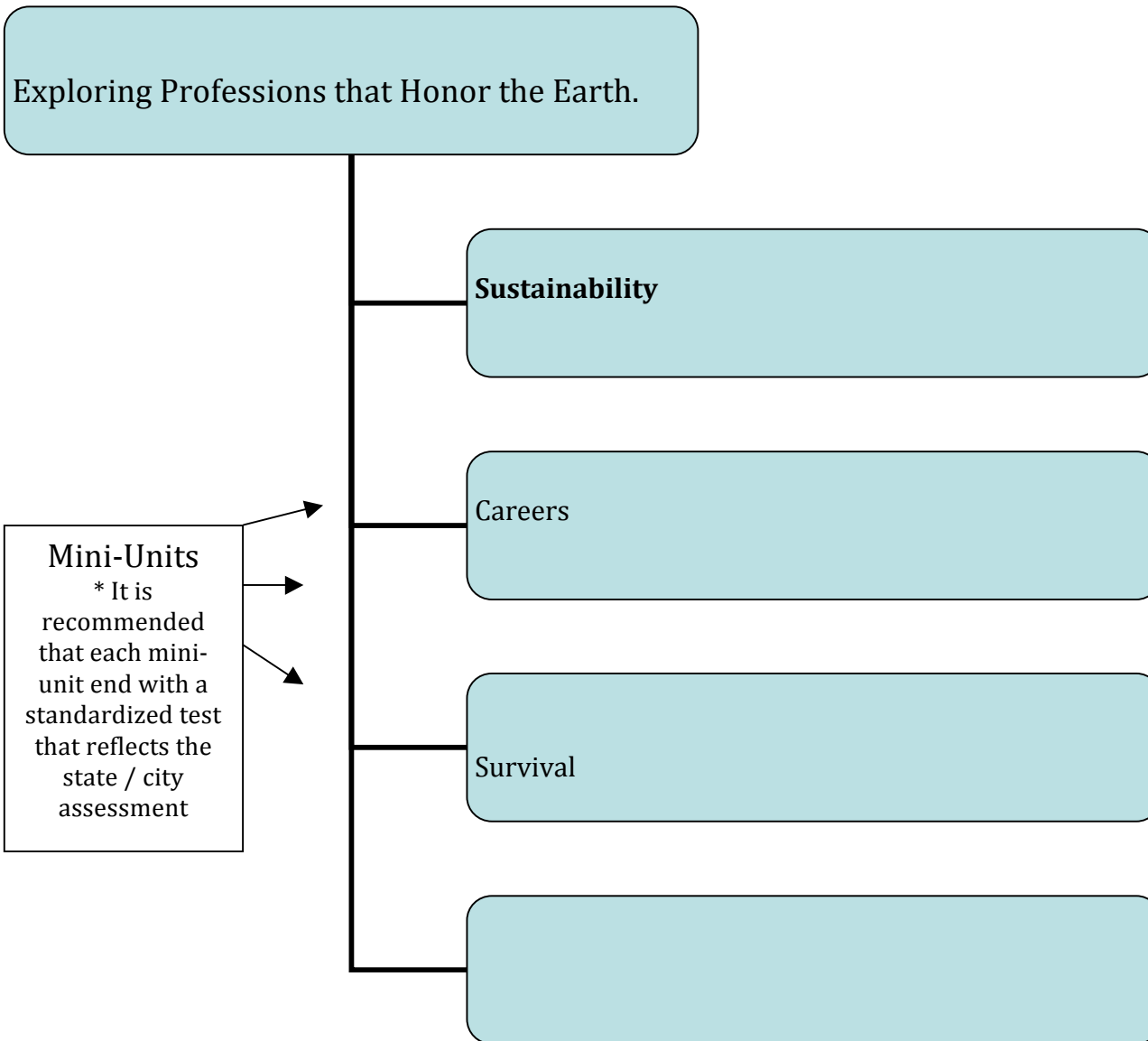
Theme: *Career Exploration*

Graphic Overview of Unit

Suggested Time Frame:

Essential Question: Are you a citizen of the world?

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Students will create and present a virtual tour of a new all inclusive community that is designed to be ecologically sound and oriented to 'green' living. Students will take the roles of various professionals, such as, scientist, architect, marketer, etc.

Stage 1- Desired Results

Standards-Based Learning Goals:

N.Y.S. Standards

Standard 1: Students will read, write, listen, and speak for information and understanding.

Standard 2: Students will read, write, listen, and speak for literary response and expression.

Standard 3: Students will read, write, listen, and speak for critical analysis and evaluation.

Standard 4: Students will read, write, listen, and speak for social interaction.
Students will use oral and written language for effective social communication with a wide variety of understanding of people and their views.

Grade 8 Reading

Standard 1:1 Students will read, write, listen, and speak for information and understanding.

Students:

- Interpret and analyze information from textbooks and nonfiction books, as well as reference materials, audio and media presentations, and electronic data bases

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for a general audience.

- relate new information to prior knowledge and experience.
- evaluate writing strategies and presentational features that affect interpretation of the information.
- make perceptive and well-developed connections to prior knowledge.

Standard 2:1 Students will read, listen, and speak for literary response and expression.

Students:

- identify significant literary elements (including figurative language, rhyme, irony) and use those elements to interpret the work.
- recognize different levels of meaning.

Grade 8 Writing

Standard 1:2 Students will read, listen, and speak for information and understanding.

Students:

- develop information with appropriate supporting material, such as facts, details, illustrative examples, and exclude extraneous material.
- use the process of pre-writing, drafting, revising, and proofreading (the “writing process”) to produce well-constructed informational texts.
- use standard English for formal presentation of information, selecting appropriate grammatical constructions and vocabulary, using a variety of sentence structures, observing the rules of punctuation, capitalization, and spelling.
- support interpretations and decisions about relative significance of information with explicit statement, evidence, and appropriate argument.
- use a wide range of organizational patterns such as chronological, logical, (both deductive and inductive).

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Standard 2:2 Students will read, listen, and speak for literary response and expression.

Students:

- write stories, poems, literary essays that observe the conventions of the genre and contain interesting and effective language and voice.

Concepts

Big Ideas for this Unit

Sustainability

It is essential that mankind create, implement, and continually practice the responsible use of limited resources.

Careers

There is a direct and indirect relationship between economic conditions, the job market, life style choices and future career paths with the health of the natural world.

Survival

The financial, physical, and cultural survival of humanity rests on the understanding and respectful relationship with the natural world.

Key Words

Magnet School Theme:

Green Magnet School for Career Exploration: “ Reduce, Reuse, and Recycle”

Big Ideas and Overarching Essential Questions

Essential Question:

Are you a citizen of the world?

Topical/Focusing Questions

- What societies/cultures both past and present successfully built environments that balanced the needs of humans and nature?
- What disciplines and areas of study facilitate environmental awareness?

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<ul style="list-style-type: none">• Biodiversity• Cloning• Genetic engineering• Irradiation• Ethics• Horticulture• Aquaponics• Botany• Ergonomics• Animal Husbandry• Marine Biology• Permaculture	<ul style="list-style-type: none">• What occupations/professions are connected to the environment? <p>Relevant/Connected Big Idea:</p> <p>Relationships- What responsibilities do people have in coexisting with the flora and fauna of their environment?</p> <p>Interdependence- How is the human and non-human world interrelated?</p> <p>Self-Respect- How do we as a community hold ourselves accountable for the use and/or misuse of natural resources?</p> <p>Commitment- How do we honor our commitments to maintaining an ecologically friendly environment with our community?</p> <p>Nature- What does the natural world give us?</p>
Enduring Understandings	Overarching Essential Question(s):

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<p>Relationships Explore the discipline/science/application/practice of</p> <ul style="list-style-type: none">• vermaculture• aquaponics• animal husbandry• botany• marine biology• environmentally sensitive construction• ergonomics• horticulture• hydroponics <p>Interdependence</p> <p>Self-Respect</p> <p>Commitment</p> <p>Nature</p> <p>People have responsibilities to the flora and fauna in their environments.</p>	<p>Are you a citizen of the world?</p> <p>Topical/Focusing Questions</p> <p>What responsibilities do people have in coexisting with the flora and fauna of their environment?</p> <p>How is the human and non-human world interrelated?</p> <p>How do we as a community hold ourselves accountable for the use and/or misuse of natural resources?</p> <p>How do we honor our commitments to maintaining an ecologically friendly environment with our community?</p> <p>What does the natural world give us?</p>
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<p>Enduring Understandings</p> <p>Relationships Explore the discipline/science/application/practice of</p> <ul style="list-style-type: none">• vermaculture• aquaponics• animal husbandry• botany• marine biology• environmentally sensitive construction• ergonomics• horticulture• hydroponics	<p>Overarching Essential Question(s):</p> <p>Are you a citizen of the world?</p> <p>Topical/Focusing Questions</p> <p>What responsibilities do people have in coexisting with the flora and fauna of their environment?</p> <p>How is the human and non-human world interrelated?</p> <p>How do we as a community hold ourselves accountable for the use and/or misuse of natural resources?</p>
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Stage 2- Summative Assessment Evidence

If students understand, know and are able to do the items in Stage 1, they should be able to show their understanding by completing an authentic task found in the world beyond the classroom.

- Design the Culminating/Summative Task:

G- (goal)

Your goal is to inform perspective clients about the merits of purchasing a residential or business property in a community that's been designed with a green perspective. Each aspect of the community from building construction to the amenities offered within the community has been tailored around the awareness of environmental sensitivity. Solar energy, sustainable building materials, repurposed, recycled, and organic/non-toxic materials have been used to create this community. Landscaping incorporates the elements of edible landscaping, drought tolerant vegetation and communal public spaces within the complex. Public transportation, pedestrian walkways, and bicycle paths have been woven into the plans of the community to limit or entirely eradicate the necessity of personal automobile use. **Engineers, architects, interior designers, entrepreneurs, marine biologists, botanists**, etc. will participate on the tour and offer explanations of their contributions/philosophy about the components of community and how they benefit the residents.

R- (role)

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You have adopted the role of one of the professionals slated to give a presentation in the virtual tour.

A- (audience)

The audience includes fellow students, parents, community members, and educators in the role of a group of perspective buyers.

S- (situation)

Your goal is to offer a virtual open house tour of a green residential/business community. Students will create a simulated real estate posting on the class Wiki and then offer a virtual tour of the community's attributes and green benefits.

P- (purpose and product)

- You need to create and publish a real estate advertisement of the virtual open house on the class Wiki.
- You need to prepare a power point virtual tour of the green community.

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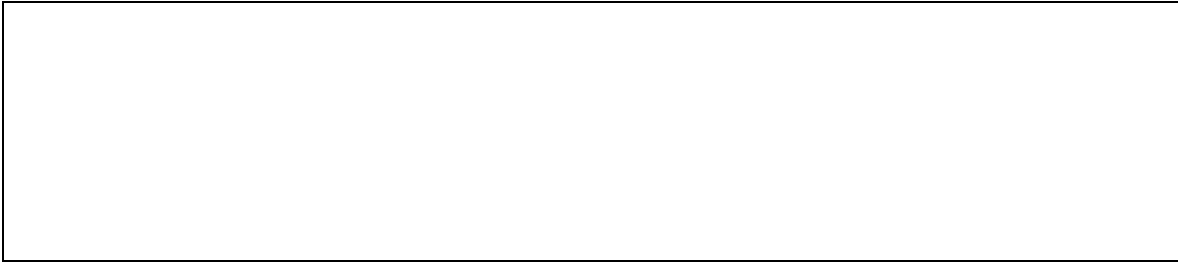
- Each group would present one of the buildings that are featured in the community.
- Each building would be presented by the professionals involved in its creation and use.

S- (standards for performance)

Your proposed work products will include an advertisement and virtual open house that includes...

- an article/advertisement that features a picture and written description of the green community featured in the open house.
- a resume and statement of purpose of each professional participating in the event.
- a slide show that features a graphic representation of each building, restaurant, park, health facility, retail establishment, social and cultural edifice present in the community.
- a graphic representation of buildings and areas that are unique to green spaces. The images of those buildings and dedicated spaces should convey the philosophy of permaculture.

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Student Task

Real Estate Representative/ Open House Professional Consultant

Your goal is to **inform** perspective clients about the merits of purchasing a residential or business property in a community that's been designed with a green perspective. Each aspect of the community from building construction to the amenities offered within the community has been tailored around the awareness of environmental sensitivity. Solar energy, sustainable building materials, repurposed, recycled, and organic/non-toxic materials have been used to create this community. Landscaping incorporates the elements of edible landscaping, drought tolerant vegetation and communal public spaces within the complex. Public transportation, pedestrian walkways, and bicycle and segue paths have been woven into the plans of the community to limit or entirely eradicate the necessity of personal automobile use. Engineers, architects, interior designers, sociologists, entrepreneurs, marine biologists, botanists, etc. will participate on the tour and offer explanations of their contributions and philosophy about the components of the community and how the space benefits the residents.

Submit a resume that can be viewed by prospective clients that highlights your expertise in the green services.

In addition, **create** a statement of purpose about your role in the construction of and/or service provided in relation to the community.

You need to also **produce** an article/advertisement that features pictures and written descriptions of the green community featured in the open house.

Include a slide show/virtual tour using various technologies (Power Point, Inspiration, Garage Band, IMOVIE etc.) that features a graphic representation of each building, restaurant, park, health facility, and retail establishment, social and cultural edifice present in the community. Be sure to distinguish buildings that are unique to the philosophy of

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permaculture "The philosophy within **permaculture** is one of working with rather than against nature, and of protracted and thoughtful observation rather than premature and thoughtless action". Mollison and Holmgren

Rubric for Culminating Project

Understanding (60%)	Product (30%)	Presentation (10%)
4 = High level of understanding through evidence of independent application, subtle connections, and extensive and valid evidence to support all major claims and assertions.	4 = Documentary is extremely well organized and fully developed, with extensive evidence of original ideas and assertions supported by consistent evidence of independent research and facts.	4 = Culminating presentation is characterized by highly effective attention to the needs of the audience as well as creative use of pictures and graphs to reinforce coherence, development and persuasiveness.
3 = Adequate level of understanding is demonstrated through some original insights and sections that are well developed; other sections need additional evidence to support fully with evidence all major claims and assertions.	3 = Documentary is generally clearly organized, with some sections fully developed through original analysis, but other sections would benefit from greater attention to supporting details and elaboration.	3 = Culminating presentation is characterized by a straightforward but underdeveloped approach, with some use of visual aids and generally a clear understanding and responsiveness to audience needs.

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<p>2 = Incomplete level of understanding is demonstrated through an account that contains some sections with original insights supported with adequate evidence; many aspects need much more development and evidence to make a convincing, complete, and insightful argument.</p>	<p>2 = Documentary is somewhat superficial in its approach, with a tendency toward summary and highlights and with little attention to original analysis; much greater attention to supporting details, relevant evidence, and coherence of organization are required.</p>	<p>2 = Culminating presentation is brief and lacks overall evidence of attention to the needs of the audience; there is little use of visual aids to lend coherence to the presentation's organization, and there is a consistent need for further explanation and elaboration through supporting evidence.</p>
<p>1 = Little evidence of deep understanding is demonstrated as a result of a generally superficial account that tends to summarize rather than analyze key ideas; many aspects of the argument are sketchy or underdeveloped, with little, if any, attention to balanced and reliable evidence to support claims and assertions.</p>	<p>1 = Documentary is extremely superficial in its approach to presenting and supporting an original thesis and related supporting evidence and claims; there is little evidence of original analysis or insight; sequence of events is poorly organized, with little, if any, supporting details, relevant evidence, and coherence of organization.</p>	<p>1 = Culminating presentation is inadequate, lacking any attention to the needs and background of the audience. Ideas are consistently summarized with no attention to the need to support and express them with power of conviction. No evidence is present of the need to organize information and claims visually.</p>

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Stage 2- Formative Assessment Evidence	
Throughout the unit how will you check to make sure students are mastering the knowledge, skills, and understandings they need to be successful at the summative/culminating task?	
Assessment Formats on the State Test	Weekly Formative Assessments For Content...
Assessment Formats on the State Test	Students will fill out various graphic organizers (bubble-maps, kwl chart, cause and effect charts).
New York State English Language Arts Exam <ul style="list-style-type: none">• multiple-choice reading comprehension questions• six short-response essay questions• two extended- response essay questions• evaluation of mechanics in the essay portion of the assessment.	Students will be given weekly quizzes and exams on literary terms, ecologically related terms and science related information pertaining to permaculture. Students will be given weekly quizzes and exams on poetic devices and other literary terms. Students will produce an essay in each of the processes listed below. <ul style="list-style-type: none">• Persuasive essay

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<p>Acuity Literacy Exam</p> <ul style="list-style-type: none">• multiple-choice reading comprehension questions	<ul style="list-style-type: none">• Resume• Comparison and contrast essay• Narrative procedure• Descriptive essay• Memoir• Research report
	<p>For Skills...</p> <p>Students will participate in weekly workshops on writer's craft. They will focus on several written processes (comparison & contrast, persuasive essay, and narrative procedure etc).</p> <p>Students will participate in a poetry workshop. Students will</p>

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study and familiarize themselves with the elements of garden poetry in various forms.

Students will participate in technology workshops on how to produce power point and other digital products.

For Understandings...

Students will write daily journal entries as reflection pieces based on their readings and viewing from the thematic unit. Additionally, students will fill out frayer models, concept maps, vocabulary cards, concept ladders, etc.

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Essential Question: Are You a Citizen of the World?

Mini-Unit Title	Big ideas of the mini-unit / concept statement (macro)	Knowledge (Important Content to Know about Mini-Unit) (Micro)	Skills What should the students be able to do? (rule of thumb - skills are verbs – knowledge is a noun)	How does this connect to the theme of your school	Possible List of Topical Essential Questions / Focusing Questions	Mini-Unit Assessment	Benchmarks / Scaffolding towards culminating project
Sustainability	'Sustainability of resources is critical to the future of mankind.'	Practice the responsible use of limited resources. -Non-fiction reading -Vocabulary In the domain of ecology	Read for understanding Write for understanding	Interdependence- Careers in a variety of fields related to ecology.	What cultures both past and present balanced human needs with global health?	Essay Reading Comprehension Exam(Multiple Choice)	
Careers	Where will you fit into the global economy?	There is a relationship between economic conditions and the natural world.	Read for understanding Write for understanding	Commitment- How do we honor our commitments to maintaining an ecologically friendly environment with our community?	What occupations are connected to the environment?	Essay Reading Comprehension Exam (Multiple Choice)	NYS ELA FORMAT Short Response and extended responses
Survival		Our continued existence depends on a green present.	Read for understanding Write for understanding	Relationships- What responsibilities do people have in coexisting with the flora and fauna of their environment?	What disciplines and areas of study facilitate environmental awareness?	Essay(Resume) Reading Comprehension Exam (Multiple Choice)	NYS ELA FORMAT Short Responses and extended responses

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			<p>Write for understanding</p> <p>Read for understanding</p>	<p>How is the human and non-human world interrelated?</p>		<p>Poetry Booklet</p> <p>Power Point Presentation</p>	
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A Week at a Glance – Copy as Necessary

<p>WHERE is the student going and what is expected HOOK with needed skills to experience and explore Opportunity to REVISE and RETHINK their understanding</p>	<p>Allow students to EVALUATE work and implications TAILOR work to student needs Be ORGANIZED to maximize engagement</p>				
Monday	Tuesday	Wednesday	Thursday	Friday	

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<p>Content Focus: Developing an awareness of the precepts of permaculture through memoirs.</p> <p>Hook: What are the five things that you need to survive on a daily basis in order to... eat. sleep. Socialize. take care of your hygiene needs.</p> <p>Daily Assessment: Students will be introduced to three books through a read aloud for the unit of study.</p> <p><i>When I Was Puerto Rican</i> by Esmeralda Santiago</p> <p><i>Funny in Farsi: A Memoir of Growing Up Iranian in America</i> (Hardcover) by Firoozeh Dumas</p> <p><i>Funny in Farsi: A Memoir of Growing Up Iranian in America</i> (Hardcover) by Firoozeh Dumas</p>	<p>Content Focus: How can we take care of the earth? Permaculture; Speaking, listening, reading or writing for information.</p> <p>Hook: Write down a journal entry of the first five things you did when you woke up this morning in chronological order.</p> <p>Assessment: Write a response to literature based on how the characters in the read</p>	<p>Content Focus: How do we take care of our community?</p> <p>Hook: Explore the concept of hydroponics, Aquaculture, and aquaponics.</p> <p>Daily Assessment: Fill out a graphic organizer illustrating the setting. make a comparison and contrast of how the characters fulfill their daily needs in their setting in relation to how you fulfill your needs in an urban setting.</p>	<p>Content Focus: What are our ecological concerns?</p> <p>Hook: Do we know how to survive?</p> <p>Daily Assessment: Have students define and identify examples of the related terms with events from the text.</p> <p>Aquaponics Animal Husbandry Horticulture</p>	<p>Content Focus: Are we equipped to survive on our own?</p> <p>Hook: Have students respond to an article about food production.</p> <p>Poultry Marine Life Produce</p> <p>Daily Assessment: Have students write a narrative procedure on the process of food production (A list will be provided).</p>
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	aloud exist in their surroundings.			
<p>Weekly Assessment: Students will be given a test based on the related terms. Students will write a descriptive essay. What have the students produced that scaffolds towards the units culminating assessment? (for example if the unit's culminating assessment is a newspaper – perhaps the students have written an article)</p> <p>The students are learning about the scientific concepts that will enable them to construct their virtual tours.</p>				

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: A Week at a Glance – Copy as Necessary

WHERE is the student going and what is expected HOOK with needed skills to experience and explore Opportunity to REVISE and RETHINK their understanding		Allow students to EVALUATE work and implications TAILOR work to student needs Be ORGANIZED to maximize engagement		
Monday	Tuesday	Wednesday	Thursday	Friday
<p>Content Focus: Understanding the devastating effects of carbon emissions.</p> <p>Hook: Quick write: Describe how you got to school today.</p> <p>Car Public transportation Walk</p> <p>Daily Assessment: Read selected article about fuel Emissions and the impact on Society. Write an opinion piece</p>	<p>Content Focus: Understanding the devastating effects of poor eating habits.</p> <p>Hook: You are what you eat.</p> <p>Daily Assessment: Read related article on health issues based on poor nutritional choices.</p>	<p>Content Focus:</p> <p>Hook: Bloom where you are planted.</p> <p>Quick write: What does it mean to thrive in your individual setting?</p> <p>Daily Assessment: Response to literature response will be assigned based on how the characters in the read alouds adapted to their surroundings and thrived.</p>	<p>Content Focus: Informational article.</p> <p>Students will read science article related to soil erosion, pollution, and other detrimental effects in the environment. Hook: When life hands you lemons, make lemonade... Quickwrite: How have people in the related articles made the best out of less than ideal environmental situations. Daily Assessment: Write a cause and effect essay based on information in the assigned articles.</p>	<p>Content Focus How can we appreciate and save our surroundings?</p> <p>Hook: Stop and smell the roses. Create garden poems that capture in words and pictures what is special about our environment.</p> <p>Daily Assessment: Students will produce a poetry booklet.</p>
<p>Weekly Assessment: Students produce a cause and effect essay based on the assigned reading.</p> <p>Students produce a poetry booklet based on their readings and research.</p> <p>What have the students produced that scaffolds towards the units culminating assessment?</p>				

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A Week at a Glance – Copy as Necessary

WHERE is the student going and what is expected HOOK with needed skills to experience and explore Opportunity to REVISE and RETHINK their understanding		Allow students to EVALUATE work and implications TAILOR work to student needs Be ORGANIZED to maximize engagement		
Monday	Tuesday	Wednesday	Thursday	Friday
Content Focus:	Content Focus:	Content Focus:	Content Focus:	Content Focus:
Hook:	Hook:	Hook:	Hook:	Hook:
Daily Assessment:	Daily Assessment:	Daily Assessment:	Daily Assessment:	Daily Assessment:
Weekly Assessment: What have the students produced that scaffolds towards the units culminating assessment? (for example if the unit's culminating assessment is a newspaper – perhaps the students have written an article)				

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Unit Resources

Books: Excerpts from ...

When I was Puerto Rican by

The Land That I Lost by Huynh Quang Nhuong

Funny in Farsi: A Memoir of Growing Up Iranian in America (Hardcover) by **Firoozeh Dumas**

Websites:

www.greencareersguide.com

www.asiasociety.com

www.patimorenogardengirl.com

<http://www.randomhouse.com/vintage/read/puerto/santiago.html>

<http://www.randomhouse.com/vintage/read/puerto/santiago.html>

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<http://www.amazon.com/Funny-Farsi-Growing-Iranian-America/dp/1400060400>

www.climatecrisis.net

http://lesson-plans-materials.suite101.com/article.cfm/garden_poetry_lesson_plan

Teacher Materials:

Trade books

Related Articles

Assigned Poetry

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Other:

Laptops

Smart Board

Trade Books