

Blueprint for Sustainable Living 101

Design Objective

Background

- I am an aspiring instructional designer who is passionate about sustainability. I want to inspire others to live a more sustainable life by educating them on simple things they can do to reduce their ecological footprint, reduce waste, and how to inspire others to do the same.

Objective & POV

- I am designing a module on sustainable practices. A beginner's guide to low impact living/sustainable living, if you will.

Audience

- K-12 students

How Might We

- How might we encourage interest in learning more about sustainability
- How might we inform students about the impact of their carbon footprint
- How might we make the world or even your own community a more sustainable place
- How might we promote learning for sustainability purposes
- How might we change our mindset as a consumer

Context for Unit Title, Course / Subject, Grade Level

External Expectations

- **Established state content standards:** The [California Education and the Environment Initiative \(EEI\)](#) is a statewide effort that was established to make environmental literacy an integral part of the K-12 curriculum. A [blueprint for environmental literacy](#) was established in 2015 with a goal for students in California to become

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environmentally literate and be able to address current environmental challenges while preventing new ones by integrating environmental literacy efforts into current and future educational initiatives.

- **Real world mandates:** This course hopes to align with the International Society for Technology in Education (ISTE) [global collaborator student standard](#) as students will be able to engage in learning how to solve complex issues. We are in the midst of an environmental crisis and it is crucial for students to understand the environmental factors that affect their lives and figure out a way to solve these issues, starting with how to live more sustainably.

Nature of the Subject

- **Convergent/divergent thinking:** Living sustainably consists of many aspects:
 - Learning how to refuse, reduce, reuse, recycle, and rot/compost
 - Eating more plant based foods and choosing sustainably farmed food (local foods, grass fed and/or pasture raised meats, sustainably farmed/caught seafood)
 - Switching to energy efficient household features (solar, energy efficient lighting, high efficiency appliances)
 - This course requires divergent thinking because it involves thinking about and understanding how to live sustainably while factoring in aspects such as greenwashing and costs associated with sustainable practices
- **Relevance of subject:** This has very practical application outside of the classroom arena because students are learning how to apply what they learn in real life.
- **Predictable misunderstandings:** The biggest misunderstanding is the cost of living sustainably. There are misconceptions about how implementing these changes could be costly and that it somehow pushes one to the upper echelon in society. Another misconception could be the difficulty of implementing these changes.

Context of the Learning Situation

- **Students:** Ideally there would be 20-30 students in the class.
- **Class meetings:** Online/self guided
- **Delivery methods:** Online

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- **Possible challenges:** Some challenges could be students not being interested in the self guided class and would not finish the course in its entirety. A big opportunity is that if this is a successful course, students will be able to guide others on how to live sustainably.
- **Goal:** These modules could be adopted by teachers in the district so students are engaged in the learning process.

Characteristics of the Learners

- No prior knowledge, skills, experience, and attitudes: Students do not have to have prior knowledge but rather an interest in sustainability.
- Learning preferences: Student learning preferences are multimodal.
- Enrollment: Students are enrolling in this course because they have an interest in sustainability and want to further their knowledge about sustainable practices.
- Students expectations for learning and instruction: Students will be expected to leverage the online module to view and complete all assigned coursework.

Desired Results

Foundational Knowledge

- Basics of sustainability
- How to live sustainably
- Reducing your ecological footprint
- Climate change and carbon footprint
- Concepts of zero waste and waste management

Enduring Understandings

- Sustainability is a nuanced concept encompassing many factors such as the environment and people.
- Understanding your ecological footprint is crucial to seeing the impact you have on the environment and is helpful in order for you to determine what next steps you should take to reduce your ecological footprint.

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- Activities include:
 - [Introduction to sustainability](#)
 - Watching [Ted-ed videos](#)
 - [Carbon footprint calculator](#)
 - Reflection on thoughts after completing carbon footprint calculator
 - Reflection on thoughts after watching [The Story of Stuff](#)
 - Mini assessment on sorting waste, recycling, organics
 - Game plan on how and what student plans on incorporating into their lifestyle in terms of sustainability

Essential Questions

- How can we learn how to live sustainably in addition to educating and inspiring others to do the same?
- How will climate change affect our daily lives and what are some modifications we can make to our lifestyles to mitigate the effect we have on climate change?
- Is it truly possible to be zero waste?
- How does the environment affect our lives?
- What is the role of the government in ensuring its people have a safe and prosperous future?

These are some questions students will have to ponder upon and be able to answer as they complete the course. Students will be able to recognize that living a sustainable lifestyle does not have to involve major lifestyle changes.

Learning Objectives

- Learners will acquire knowledge on the following subjects and have a deeper understanding of the following topics:
 - Introduction to Sustainability
 - What is sustainability?
 - What is climate change?
 - What is my carbon footprint?
 - What are some steps I can take to modify my carbon footprint?

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- Waste not, Want not
 - What is waste management?
 - What is zero waste?
 - How do I sort my waste?
 - How do I reduce my waste?
- Be the Change
 - Shopping local and/or secondhand
 - Researching where the items come from/greenwashing
 - Not buying more stuff

Skill Objectives

- **Students will acquire skills such as:**
 - Knowledge on various topics on sustainability
 - Applying what they learn in the module to their daily lives

Acceptable Evidence

Formative Feedback

- **Evidence to inform feedback:** I will be leveraging polls to inform the structure of the module and to determine if the future modules need to change in order to provide additional information and resources on a specific topic.
- **Applying principles of effective feedback:** I will use a poll at the end of the module to determine what the learner found interesting and what can be incorporated to future modules.
- **Student reflection:** Learners will be taking various surveys and writing brief reflections on various topics on sustainability.

Summative Assessment

- **Performance criteria:**
 - Students' performance will be evaluated by the following criteria:
 - Demonstrates understanding of concepts shown in modules

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- Incorporates innovative solutions to real world problems
- Produces well written reflections
- Clear goals on how learner plans on incorporating concepts to their daily lives
- **Address key learning concepts:** The biggest learning concept the assessment addresses students ability to recognize the importance of sustainability and how to implement sustainable practices into their daily lives. Hopefully, the learners will also inspire others to do the same after taking this course.

Design Core Practices and Lessons

Brief explanation of the number of lessons within the unit.

There will be 3 modules in this unit. Each module will cover a different topic pertaining to sustainability.

Function	Description & Alignment	Pedagogy and tools
Module 1: What is sustainability?	<ul style="list-style-type: none">● Introduction to sustainability● Climate change and its effects on our lives● Carbon footprint survey	Educational videos, survey, reflection
Module 2: Waste Not, Want Not	<ul style="list-style-type: none">● Introduction to waste management● Introduction to zero waste● Recycling vs compost vs trash	Educational videos, survey, reflection
Module 3: Be the Change	<ul style="list-style-type: none">● Your role as a consumer<ul style="list-style-type: none">○ Avoiding greenwashing● Actionable goals/next steps● Final thoughts/reflections	Educational videos, survey, reflection

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Rubric		
Areas for Improvement	Criteria for Reflections	Evidence of Exceeding Standards
	Initial statement(s) <ul style="list-style-type: none">Opinions/thoughts/reflections are clearly stated	
	Content <ul style="list-style-type: none">Points made are relevant to each moduleReflection is clear, creative, and supporting evidence is provided	
	Length <ul style="list-style-type: none">Meets 100 word minimum requirement	
	Grammar <ul style="list-style-type: none">Grammar and formatting are correct	
0-75	75-90	90-100