

Project Grading Clarification

- There is no right or wrong way to design YOUR game
- **My role:**
 - Teach foundational knowledge about learning design and game design
 - Give feedback on your design exercises and milestones
- **Your role:**
 - Integrate what you learn in class to make meaningful and appropriate design decisions
 - Present your milestones in a thoughtful way
- I assume you're the "expert" in the topic you're trying to teach through your game. So I'll not be critical about core learning content of your game, just the presentation of it because you (a good designer) need to successfully convey your ideas to me (an audience - maybe a potential user or investor of your product)

Milestone #1 Grading Criteria

Summary An introduction summarizing your learning content area in 1-2 paragraphs (~250 words).

- You'll get full credit if you summarize all the subsequent parts of this design document.
- Example:

SUMMARY:

Our educational game on sustainable living is tailored to diverse users from 3rd-9th grade (age 8-14) and offers a tiered curriculum that both fosters foundational awareness and inspires real-world actions. The game employs three pedagogical models – constructivism, spiral curriculum, and constructionism – to achieve its educational goals. Specifically, our curriculum ensures (1) learning topics take into account limited pre-existing knowledge of the young audience, (2) later topics build on and deepen previous knowledge, and (3) there are concrete deliverables/actions the users can take as the fruit of their learning.

The game presents three distinct learning levels. The first level, foundational awareness, acquaints users with the core elements of their environment. The second level, everyday practices, provides actionable insights that can be integrated into their daily routines. Finally, the curriculum culminates in community and systemic actions, challenging learners to engage in the broader socio-political contexts of environmentalism and sustainability, empowering them to be a green citizen and an agent of change.

Milestone #1 Grading Criteria

Target User Attributes Create three mythical users. I will take points off if:

- 2+ users have very similar profile
- Missing *“Explain what skills this user lacks that you have that you will need to accommodate when you design your game”*
 - **Bad** answer: *“This player struggles to understand biology concepts so my game will accommodate that.” (not descriptive enough - which biology concepts, which skills she/he lacks that make it hard for her/him to understand biology concepts)*
 - **Good** answer: *“This player has short attention span and lacks reading comprehension skills, so it is very difficult for her/him to read long text or learn from textbooks. My game will accommodate this user by including more visual cues and/or offering optional non-serious game challenges that she/he can choose to play as a “break” from the learning tasks.*

Milestone #1 Grading Criteria

Skills Describe what skills you are going to teach your user.

- Make a list!
- Try grouping them into level of difficulty (if applicable)
- This is the list of “subtopics” within the overarching topic / subject / content are you’re going to teach
- Example:
 - Overarching topic - Sustainable Living

SKILLS

Beginner (Foundational Awareness):

- Resource scarcity
- Ecosphere
 - Biodiversity
 - Pollution
 - Animal welfare

Intermediate (Everyday Practices):

- Upcycling
- Hand-me-down
- Trash sorting
- Energy conservation
- Public transportation
- Chemical alternatives

Milestone #1 Grading Criteria

Learning Trajectory Make a diagram

- Learning goals (text inside all the boxes) can be a mix of skills and knowledge
 - Do NOT make a list of definitions of different science concepts. If your learning content is very academic, you should at least specify what do you want players to be able to do with a definition / piece of knowledge (e.g., articulate Newton's 2nd law, apply Newton's second law to do something, explain a real-world or stimulated scenario using their understanding of Newton's second law they learn)
 - Why can't I just teach a definition? Well, some players can just brute force the learning part of your game by memorizing all those definitions....

Milestone #1 Grading Criteria

Learning Trajectory (cont.)

- MUST describe your methodology (i.e., which theory inspired the shape of your learning trajectory?).
 - You should choose from learning procession, spiral curriculum, pieces of knowledge, constructivism, or a mix of them)
 - You should explain why do you think your choices of theory make sense
 - If you're inspired by any other theories (e.g., ZPD, flow, scaffolding), you should also explain your use of such theories
- MUST include sources you draw the learning goals from (can be an online articles, a textbook, etc. - as long as they're credible / can't be AI-generated or from a TikTok post, etc.)
- MUST specify whether you use the learning goals from your choice of sources as is or whether you modify them (if so, which modifications you made and why)

Milestone #1 Grading Criteria

Overall

- Your design document **MUST** be thoughtful
- If you write something down to just “check all the boxes”, it’s not considered a well-designed product

*Think of your group as a startup team and me as a potential investor.
You should convince me that your game is worth putting 💰💰💰 in*

Those who aim to implement the game for extra credit...

- You're free to use any programming languages you would like to (except for Scratch)
 - You can consider using Scratch to make the game prototype for your final presentation (i.e., "final exam")
- However, course staff doesn't have the bandwidth to provide supporting resources anything outside of what is covered in the course (e.g., debugging Unity code)