




GuacaMOLE App Design Portfolio

BY GENNA UMENHOFER

User Personas

 Photo Credit: Christina @wocintechchat.com	Motivations "I want my students to have meaningful assignments." "I want to make it easy for students to take their learning into their own hands."	Frustrations Students have very different access to devices. The school IT department has a lengthy process for vetting student access to websites. There are so many resources for students to use, but not many that are easily accessible to any device.
	Biography Amber Williams Teacher (HS) 32 Years Old Chemistry & AP Chemistry Teacher	Technology Dell Desktop (Work) Thinkpad (Work) MacBook Pro (Personal) iPad Pro (Personal) iPhone XS (Personal)
Personality Detail oriented, likes to take risks and try new methods in the classroom, has high standards for herself and her students.		Goals "I want to incorporate rigorous activities into my lesson plans." "I want to avoid unproductive frustration."


 Photo Credit: Annie Spratt	Motivations "I want to get a job after high school in order to save money before starting college." "I want to take a science elective because I am not creative, and I'm not interested in computers."	Frustrations Has an afterschool job that takes up homework time afterschool. Babysits her younger siblings after school if she is not working.
	Biography Annabeth Price Sophomore (HS) 15 Years Old Chemistry Student	Technology Google Chromebook (School) iPhone XS Max (Personal) Apple Watch Series 3 (Personal) TI-84 Calculator (Personal)
Personality Neutral, Introspective. Likes to make notes and homework look nice, Detail Oriented, Plays Softball on the school's team		Goals "I want to graduate high school so that I can move on to the next part of life."

 Photo Credit: Javier Trueba	Motivations "I like science classes, so I'm going to take chemistry as a fun elective course."	Frustrations Feels like she takes too long to understand topics compared to her peers. Sometimes she is too shy to ask questions during class.
	Biography Isabel Branning Junior (HS) 16 Years Old Chemistry Student	Technology Google Chromebook (School) TI-30X Calculator (School) Dell Desktop (Library) Samsung S9 Phone (Personal)
Personality Happy, Kind Hearted, Responsible, Quiet, Doesn't like to stand out or be the center of attention, Likes to paint with watercolors in her free time		Goals "I want to graduate high school." "I want to study Social Science after high school and become a Social worker."

 Photo Credit: Brooke Cagle	Motivations "I want to attend a local state school to study computer science." "I want to take challenging classes in high school to get scholarships."	Frustrations Slow internet at school makes it hard to stay motivated on a project or assignment. Wants to take challenging classes, but has trouble staying organized. Likes to be social, and finds it hard to stay on task even though he wants to.
	Biography Alan Robertson Freshman (HS) 14 Years Old Chemistry Student	Technology Google Chromebook (School) Samsung Galaxy S22 Ultra (Personal) ASUS Gaming Laptop (Personal) TI-84 Calculator (Personal)
Personality Active Socialite, Esports Team Captain, Loyal to his friends, Likes to make people laugh, Wants to help his classmates understand content, Likes group projects		Goals "I want to be the Saxophone Section Leader next year." "I want to take AP Chemistry eventually."

 Photo Credit: Rochelle Nicole	Motivations "I am going to study Biochemistry at Johns Hopkins University." "I want to take AP Chemistry because it will help me get a jump start on my college credits and it is related to my career."	Frustrations Likes to work quickly and efficiently with her time, and becomes frustrated when a process has too many unnecessary steps.
	Biography Tasha Elliott Senior (HS) 17 Years Old AP Chemistry Student	Technology iPad Mini 5 (School) MacBook Air (Personal) iPhone 11 Pro (Personal) TI-84 Calculator (Personal)
Personality Driven, Straightforward, High Achiever, Readily Asks Questions, Quick-witted, Efficient, Participates in NHS		Goals "I want to graduate with a 4.0 GPA and as many college credits as I can."

User Matrix

PERSON	LOCATION	ACTIVITY	MOTIVATION
<p>Tasha Elliot is a high school senior advanced chemistry student. She wants to major in biochemistry after high school.</p>	Advanced chemistry classroom during school	Reviewing material before a test as an independent study or enrichment activity	To pass a class and graduate high school
<p>Amber Williams is a high school chemistry teacher. Through her classroom activities, she wants to challenge her students, but also provide scaffolding for students with different abilities.</p>	Collaborating with other students or colleagues in a formal group setting (staff meeting, study hall, etc.)	Learning material the first time before class in a flipped classroom setting	To ace a class and prepare for future classes or college classes
<p>Alan Robertson is a high school freshman general chemistry student. He wants to take advanced chemistry later on in high school.</p>	Collaborating with other students or colleagues in an informal group setting (impromptu tutoring, etc.)	Practicing the material after learning it in class during tutoring or as homework	To help others understand the class material
<p>Isabel Branning is a high school junior general chemistry student. She wants to major in social work after high school.</p>	General chemistry classroom during school	Planning a lesson or tutoring session for others	To practice a topic and gain more understanding of the class material
<p>Annabeth Price is a high school sophomore general chemistry student. She wants to enter the workforce after high school.</p>	A local coffee shop after school	Practicing the material while learning it in class using the gradual release model	To prepare for a test or complete an assignment

Storyboard: Amber Williams



SCENE 1

Amber is a teacher at a local high school who teaches general chemistry and advanced chemistry. She is planning a lesson about "Significant Figures" for the next unit.



SCENE 2

Amber uses a search engine to look for practice activities to use after the students take notes about "Significant Figures". She finds the GuacaMOLE website and opens it.



SCENE 3

Amber reads the home screen text, and selects the "Significant Figures" topic button, which opens the "Information" tab for the "Significant Figures" topic.



SCENE 4

Amber explores the other tabs to look at the example problems, practice problems, and calculator. She likes the variety of questions and uses for her lesson, and thinks students will enjoy the easy-to-use website.



SCENE 5

Amber uses the website as part of the gradual release model during her lesson in the next unit. She links the website into the students' learning management portal, and students complete the practice problems.



SCENE 6

Amber shares her success with the other science teachers at her school. Another chemistry teacher is excited to try the new resource in his next lesson.

Storyboard: Isabel Branning



SCENE 1

Isabel is a junior year general chemistry student at a local high school. She just finished taking notes in class and is using the GuacaMOLE website to do practice problems.



SCENE 2

Following her teacher's instructions, Isabel clicks on the "Significant Figures" topic button. She sees several tabs. The first tab that opens is the "information" tab. She reads the text on the screen.



SCENE 3

Isabel does not know what the word "estimated" means, so she hovers over the word to get a definition. She learns what the word means and understands the text about "Significant Figures."



SCENE 4

Isabel clicks the "Practice" tab, and sees the first practice problem displayed on the screen. She works the problem in her notebook, and then checks the answer. She reads the explanation and fixes her work.



SCENE 5

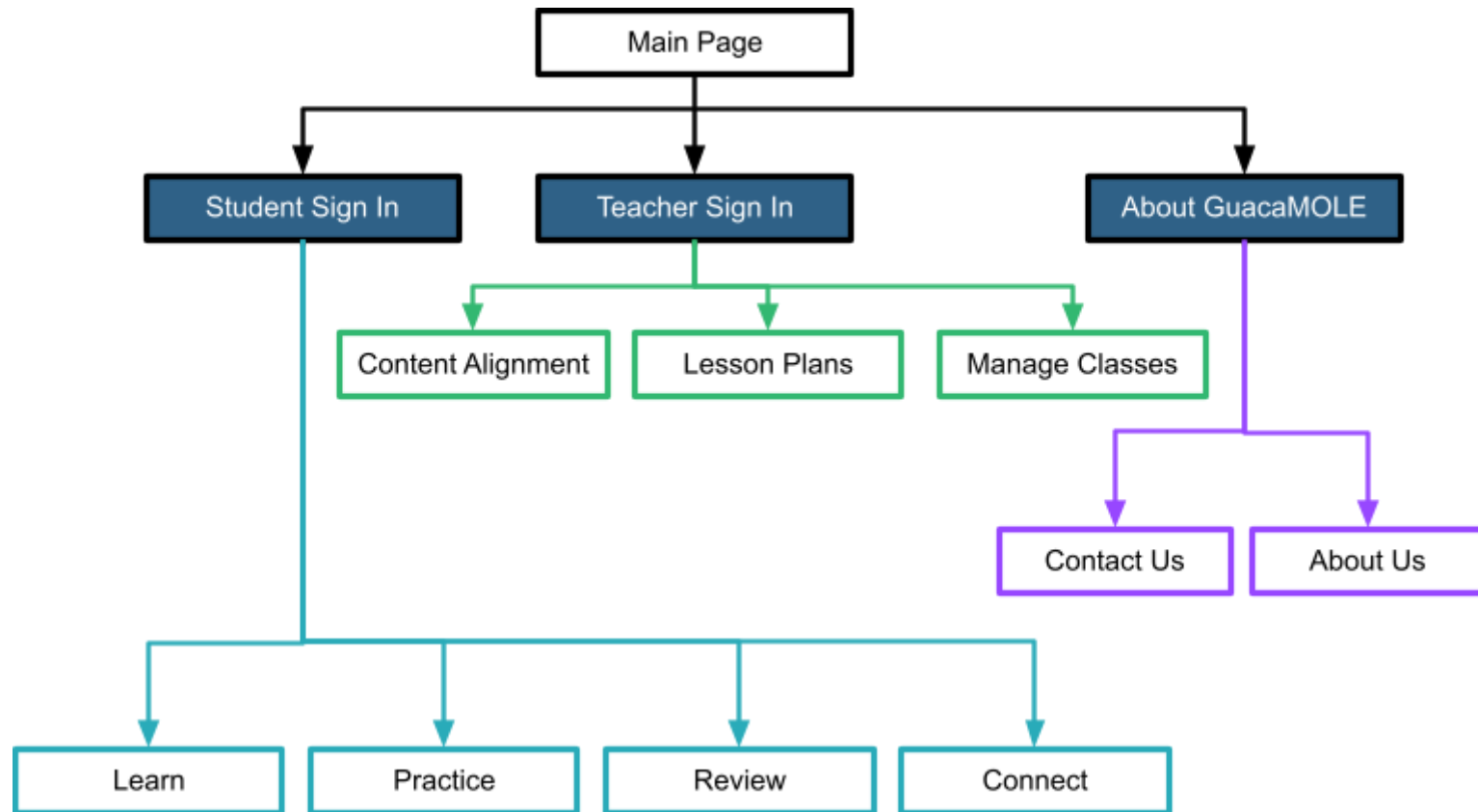
Isabel tries the next question, and checks the answer. She fixes her work, and decides to look at more examples to get a better understanding of the topic. She clicks the "Examples" tab and writes it down.



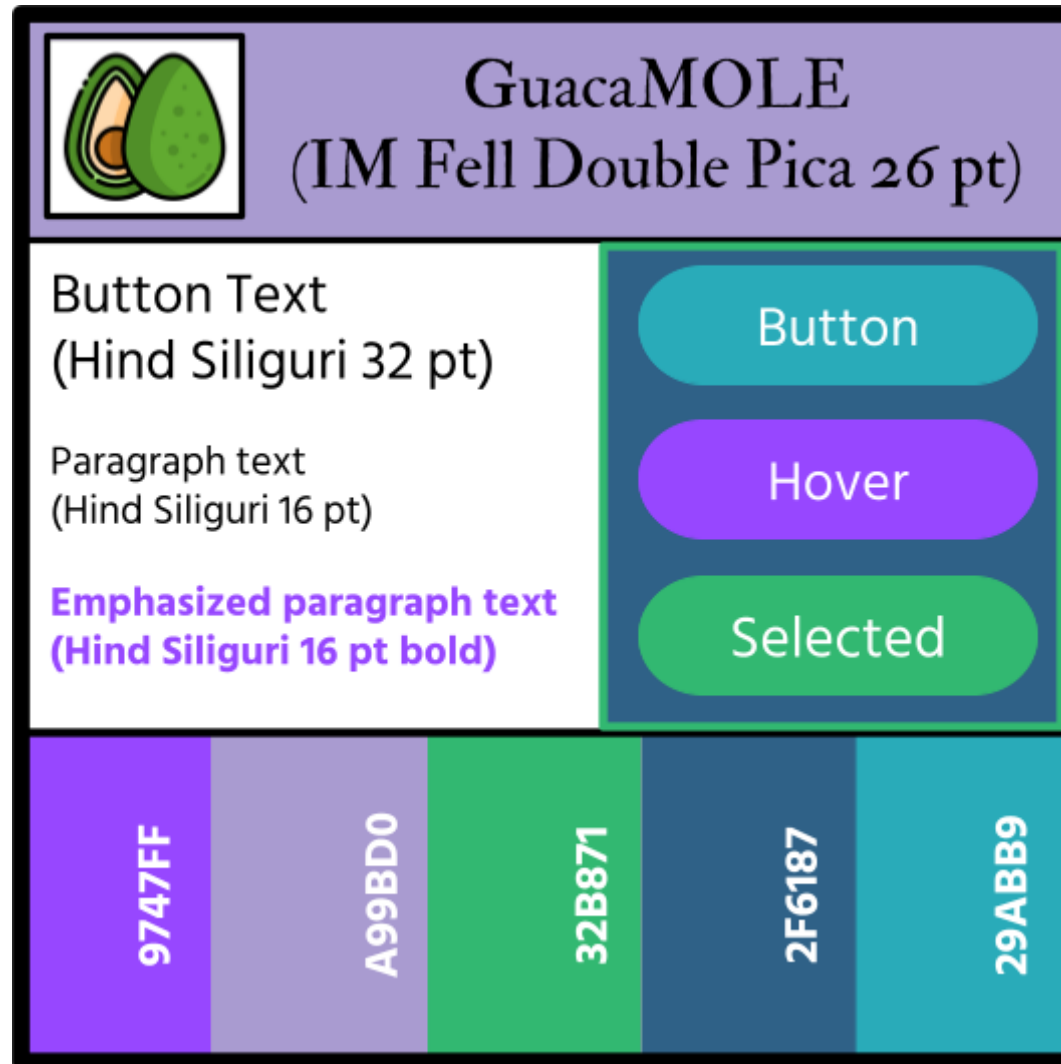
SCENE 6

Isabel is ready to try another practice problem and clicks on the "Practice" tab. She has already done problem 1 & 2, so she jumps to problem 3 using the navigation. She tries the problem and gets the answer correct.

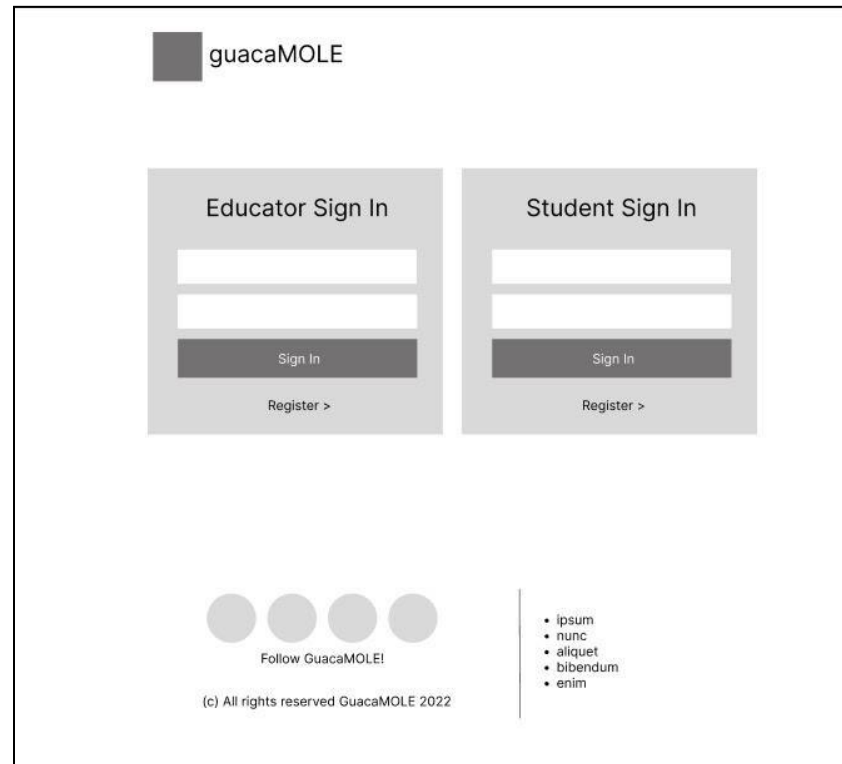
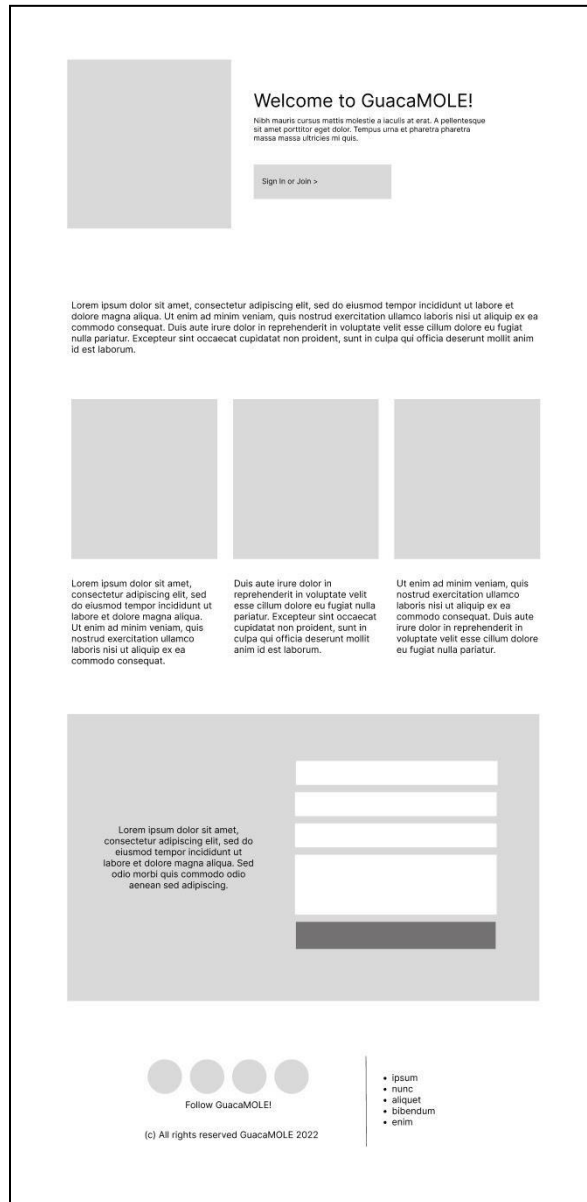
Visual Sitemap



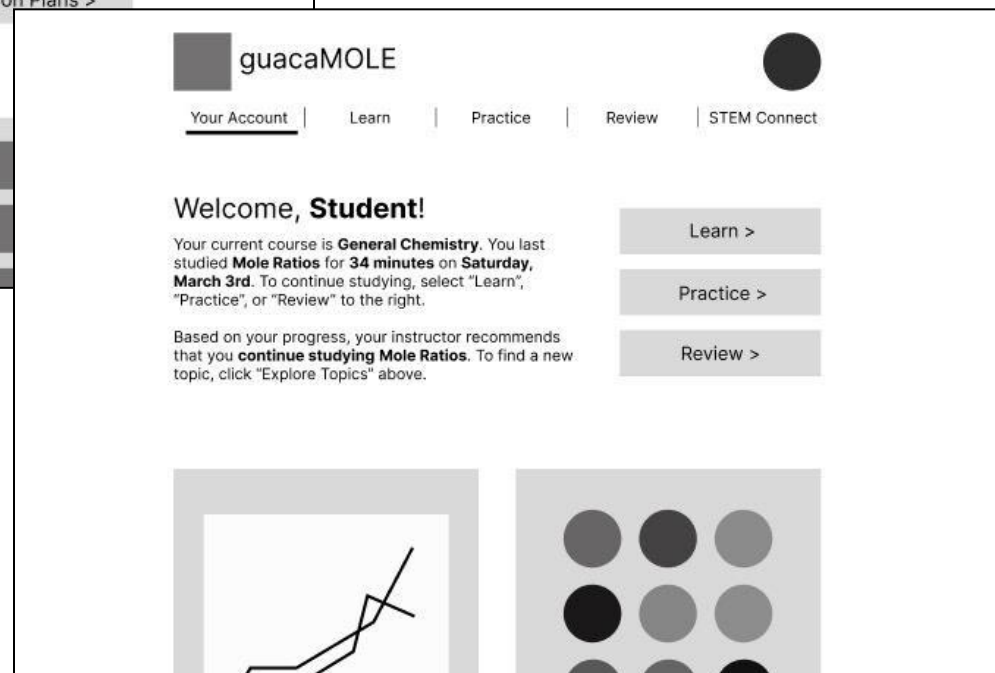
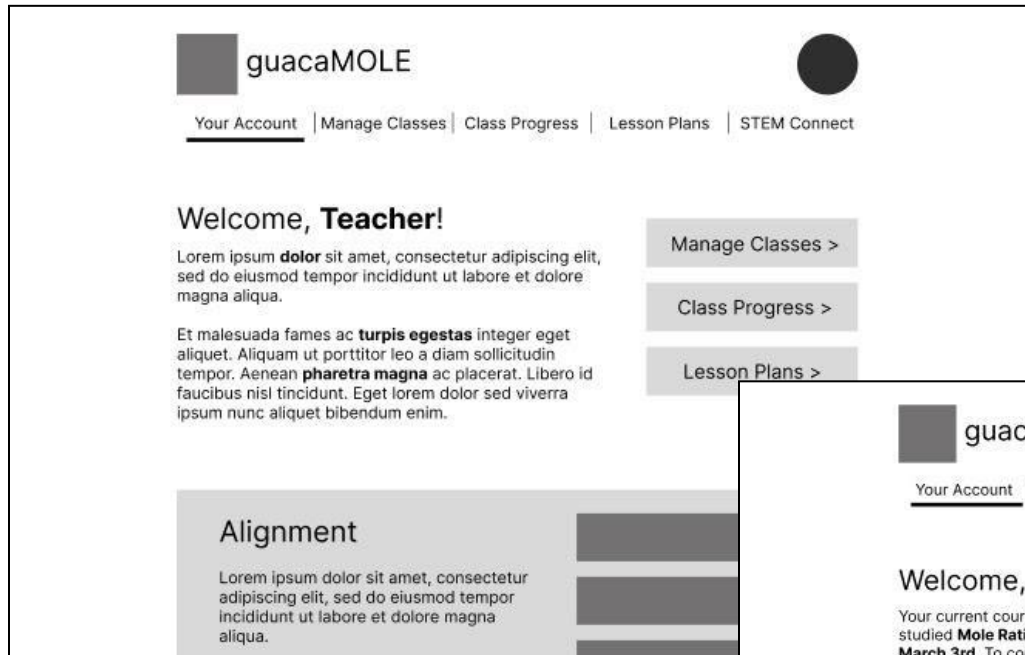
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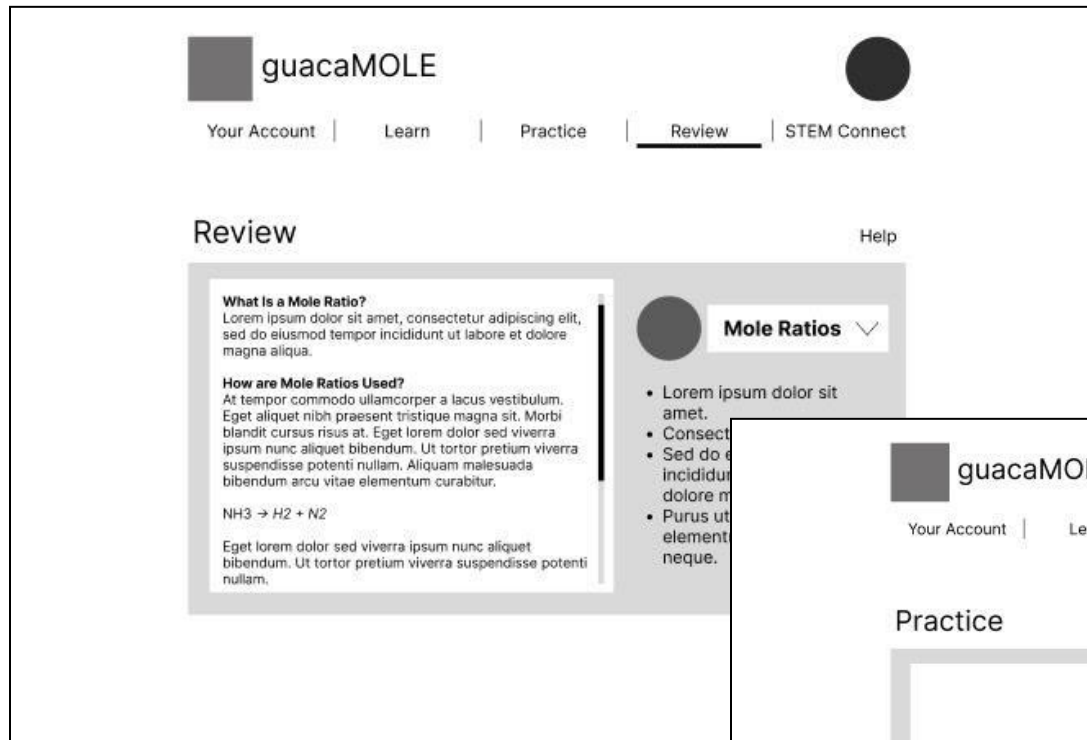
Wireframes - Home & Sign-In



Wireframe - Teacher & Student Home



Wireframe - Practice & Review



Wireframe - Lesson Plans

