



ESSENTIAL QUESTIONS OF SUSTAINABILITY MODEL SEEQS

The Essential Questions of Sustainability (EQS) model empowers students to apply and demonstrate their learning in real-world contexts through interdisciplinary project-based learning.

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OVERVIEW

The EQS model is an interdisciplinary, project-based course that empowers students to apply their learning in real-world contexts and examine complex sustainability issues. Essential questions are relevant, timeless, and broad, and enable students to explore new avenues of inquiry and apply knowledge from all content areas. These courses, which connect students with local experts and the broader community and are fueled by passionate teachers with deep content expertise, help students develop relevant background knowledge while simultaneously exploring their own interests and learning in a real-world context. [▶ EQS at SEEQS](#)

Each EQS course:

- creates a real-world context within which to apply disciplinary knowledge and skills
- focuses on interconnections between humans and the environment
- engages community members as partners in learning
- empowers students to choose the focus of their project
- motivates students through authentic project exhibitions
- is constantly evolving, guided by the interests, desires, and expertise of students and teachers.

At the School for Examining Essential Questions of Sustainability (SEEQS), where the EQS model and course were developed, EQS is combined with rigorous core learning in English, math, science, social studies, and the arts, as well as deliberate community-building and community maintenance, to enable students to apply their learnings to real-world situations and build critical sustainability skills. [SEEQS Model](#) [SEEQS Overview](#)



What Makes This Model Innovative?



Active Self-Direction

Students take ownership over their learning as they investigate individual elements of the broader essential question. Student interests also influence the development of new EQS courses and projects.



Social Consciousness & Action

Students grapple with real-world sustainability challenges, from creating sustainable businesses to creative advocacy for preserving water.



Relevance

While all EQS courses center on a broad essential question, students are encouraged and empowered to focus on a specific aspect of the question, pursuing their interests and learning in a real-world context.

DESIGN

Goals

The EQS model is designed to help students develop into stewards of planet Earth and healthy, effective citizens of the world. Along with core content standards, EQS courses utilize the Cloud Institute for Sustainability Education's performance indicators to help students develop and master key skills and understandings that will prepare them to participate in, and lead, the shift toward a sustainable future. These skills are measured using the Education for Sustainability standards and performance indicators. [Cloud Institute Sustainability Standards](#)

Responsible Local and Global Citizenship

Students will know and understand the rights, responsibilities, and actions associated with leadership and participation toward healthy and sustainable communities.

Healthy Commons

Healthy commons are those upon which we all depend and for which we are all responsible, such as air, biodiversity, climate regulation, water, libraries, heritage sites, etc. Students will be able to recognize and value the importance of the commons in our lives and assume the rights, responsibilities, and actions necessary to care for the commons.

Dynamics of Systems and Change

Students will understand the changing nature of complex systems and be able to apply the tools and concepts of system dynamics and

	systems thinking in their present lives, to make informed choices that will affect our future.
Multiple Perspectives	Students will know, understand, value, and draw from multiple and diverse perspectives in order to co-create shared visions and actions in the service of a healthy and sustainable future.
Strong Sense of Place	Students will recognize and value the interrelationships among the social, economic, ecological, and architectural aspects of a place and contribute to its continuous health.

Experience

The EQS model works to create a seamless and meaningful link between academic content and real-world application through project-based learning.

The essential questions of each course are relevant, timeless, and broad in scope. They do not have a simple answer but open up new avenues of inquiry, enabling students to explore and apply knowledge from many content areas. Examples of previous essential questions at SEEQS include:

- How can tourism honor and sustain Hawaii’s land, people, and culture?
- How can service lead to change?
- What is required to feed a community?
- How does culture influence the goods we consume and what are the impacts of our consumption?



While EQS topics and activities change, the flow throughout the semester generally remains the same: students begin by participating in EQS Camp, then spend the semester engaging in project-based learning to explore their essential question, and lastly present their projects and findings to a broad community audience.

EQS Camp

Each EQS course kicks off with a series of field studies, expert interviews, and experiences directly with community partners whose work relates to the essential question. Through this experience, referred to as EQS Camp, students develop background knowledge and begin to

focus on aspects of the broad essential question, pursuing their interests and learning in a real-world context.

EQS Camp occurs a few weeks into the semester after norms and expectations have been established. It typically takes two full school days and no other classes happen during these days, meaning that students are truly immersed in their EQS experience. During this time, students leave school to learn directly from community partners. Community partners help deepen the investigation into the essential question and provide students with a real-world context for their inquiry and project work. Examples of community partners include:



- legislators and/or local government officials
- local farms
- scientists with botanical, geological, environmental, or other specific expertise
- local nonprofits, including food banks, clean-up organizations, and eco-friendly businesses.

Project-Based Learning

Students meet daily in two-hour blocks for their EQS course. During this time, an interdisciplinary team of teachers engages with a multi-age cohort of students to investigate the specific essential question. Students and teachers work together to meaningfully structure their learning during these blocks. Though there is significant flexibility for each class, the average class period is chunked into separate parts:



- teacher-led content
- learning from experts (e.g., guest visits, community outings, field work, etc.)
- developing, proposing, and working on student-driven projects, as well as asking for and receiving feedback
- independent reflection on growth of sustainability skills, which students may use in their 8th grade portfolios.

Student projects vary from class to class and depend upon a mutually shared vision between students and teachers. In some EQS courses, there may be a single overarching class project

and student groups contribute to individual portions of the overall project (e.g., the entire class is designing one business and each group focuses on a separate aspect), whereas another EQS course may have an overarching theme with separate student projects (e.g., in an art-focused course, student groups choose their own art modality).

Public Project Exhibition

At the end of each semester, student teams showcase their EQS coursework in public project exhibitions to an audience of students, parents, teachers, and community members. Project exhibitions are an opportunity for students to share their expertise in the projects they have created and designed themselves; they are also an important part of the learning process. Interfacing with community members and other adults that are not their teachers helps students understand that their schoolwork is genuinely relevant and important.

Students and teachers treat the exhibitions as professional events; for instance, they send save-the-dates to community members in advance, and design maps and programs so that attendees know which spaces to go to when looking for specific projects. The exhibitions vary in terms of presentation type: some are “science-fair style” with students presenting their processes and final projects; others are experiential events related to the essential question, such as a sustainable meal or a stream cleanup. [📄 Sample EQS Project Rubric](#) [🖥️ Sample 6th Grade Public Project Exhibition](#) [🖥️ Sample 8th Grade Public Project Exhibition](#)

Supporting Structures

The EQS course can be implemented by any school that values sustainability, but it does require certain commitments in instruction, adult roles, community partnerships, and schedules.

Interdisciplinary, project-based learning drives the EQS student experience.



CURRICULUM, INSTRUCTION, & ASSESSMENT

Essential questions are developed by teachers with input from students. While no standard curriculum exists for EQS, teachers use a guidebook to support their planning and implementation. [📄 EQS Guidebook](#)

To plan and assess the meaningful work students do in EQS courses, teachers use standards from the disciplinary content areas represented in the course, as well as the Education for Sustainability (EfS) standards published by the Cloud Institute for Sustainability Education. [🖥️ Cloud Institute Sustainability Standards](#) These standards and performance indicators represent the key skills and understandings that will prepare young people to participate in, and lead, the shift toward a sustainable future. Teachers select two or more priority EfS standards to assess against and score students based on these scales. The cadence of this assessment

varies with the course teachers, but most courses include three to six summative performance assessments over the semester course.

Students also engage in consistent self-reflection and assessment of their growth. Throughout their years at SEEQS, students build a collection of work across all of their courses, including EQS, that demonstrates their progress in developing the SEEQS Sustainability Skills. In their 8th grade year, SEEQers collate the best of those works into a portfolio, then deliver a public defense of their progress before a panel, making the case that they are ready for the next stage of their education. [Portfolio Defense Guidebook](#) [Example Portfolio: Myumi](#) [Portfolio Defense](#)

Schools must practice deliberate community building to create an intellectually safe learning environment for students and educators.



SCHOOL COMMUNITY & CULTURE

Implementing the EQS model requires students to ask and explore big questions and practice collaborative co-learning – alongside each other and their teachers. When students build and foster relationships with each other, it allows them to examine questions critically, build empathy for others, and collaborate throughout their courses.

SEEQS believes that a strong school community and culture are the soil that enables their EQS model to thrive. At SEEQS, all students participate in multi-age advisory and the school embraces restorative practices as a means of creating an intellectually safe learning environment. While implementing EQS does not require a specific community-building structure, a strong community and culture are the foundation for successful implementation.

Content teachers are also responsible for co-teaching EQS courses with the guidance of an EQS coordinator.



ADULT ROLES, HIRING, & LEARNING

Each EQS course is co-taught by two to three teachers with expertise in a variety of subject areas. These teachers, who also teach content courses within the school, design and prepare the course together. They help to develop the essential question and guide students as they decide which specific aspect of the broader question to focus on. EQS teachers are responsible for:

- co-leading a student-centered classroom with an emphasis on inquiry, classroom collaboration, integration of technology, and self-exploration
- developing and implementing mini-lessons that enable students to develop content-specific skills, tools, and knowledge
- providing feedback on and strategies for improving student projects

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- implementing formative and summative assessments that measure student progress toward content standards and performance expectations.

In addition to the subject-area teachers, some EQS courses are co-taught with a student support teacher, who has the role of supporting students with Individualized Education Programs (IEP) in scaffolding project work.

Schools must also identify an EQS coordinator to take on the instructional leadership and logistical responsibilities of the model. Depending on the size of the school and the number of students participating, these responsibilities can be built into the role of a current school-based employee (e.g., the assistant principal), can form a teacher leadership role similar to that of a department chair, or can be a separate position entirely. The EQS coordinator supports teachers in preparing content and coordinating the logistics of field learning.

Schedules must allow for extended chunks of time for EQS courses, as well as additional prep time for teachers.



SEEQS recommends that EQS course participants meet for two hours per day, on four days per week. In addition to course time, schools must plan for additional EQS-related activities, including time at the start of the semester for students to “shop” for an EQS course by getting to know the essential questions and teachers, as well as time for EQS Camp.

SCHEDULE & USE OF TIME

Teachers also have a daily designated prep period in which they can collaborate with their partner teachers to ensure smooth implementation. New teachers are onboarded into the EQS process through after-school meetings, and all teachers participate in EQS-related professional development at the start of the school year, as well as in regularly occurring faculty meetings.

Schools must build strong community relationships so that students can learn from experts outside of the school building.



FAMILY & COMMUNITY PARTNERSHIPS

A critical component of EQS courses are the relationships built within the local community. Each course kicks off with a series of field studies and expert interviews with community partners whose work relates to the essential question, and students revisit these experiences, conversations, and relationships frequently throughout the course. Schools must build both formal and informal relationships with experts in the community to help students integrate their classwork into real-world contexts.

At SEEQS, examples of these community partnerships have included:

- 808 Cleanups, a nonprofit committed to supporting communities in restoring the Islands of Hawai'i [808 Cleanups](#)
- policymakers at the Hawai'i State Capitol
- Aloha Tree Alliance, a nonprofit working to mitigate the impacts of climate change [Aloha Tree Alliance](#)
- Hawai'i Food Bank, an organization committed to getting food into the hands and homes of people in need. [Hawai'i Foodbank](#)



SPACE & FACILITIES

Schools should create flexible spaces designed to encourage collaboration.

EQS courses should take place in large, open spaces that encourage conversation, community, and collaboration. These can be classrooms or school spaces with desks that are easily rearranged, or lounge-style spaces where students can break into small groups.



BUDGET & OPERATIONS

Schools must allocate funding for EQS Camp, field trips, and project materials.

In order to bring the EQS model to life and put their projects together, students will need the opportunity to travel into their communities and access various materials. Funding should be built into school budgets to allow for items like field trips, buses, and project supplies. A suggested amount for the EQS model is \$100 per student per year.



CONTINUOUS IMPROVEMENT

Schools must listen to the interests, desires, and expertise of students and teachers to constantly evolve EQS course offerings.

In order to ensure that EQS courses stay relevant and meaningful to students, it is important for teachers and administrators to continually reflect on their successes and areas of growth. At various points throughout the year and the planning process, teachers engage in “plus, delta” conversations in which they articulate the model and course components that are going well and should therefore continue (plus) and the things that need to change in order to improve (delta).

Student feedback is also solicited at various time points to ensure that learning is meaningful and relevant to students, as well as to identify topics for future EQS courses.

As teachers develop new essential questions annually and prepare for new EQS courses, they spend time planning as a whole faculty to incorporate feedback from previous years and courses.

IMPLEMENTATION

Supports Offered

[SEEQS](#) offers the following supports to help schools implement the EQS approach.

SEEQS Sharing Hub

Free, Cost Associated



SEEQS can provide customized professional development support to school communities. Existing opportunities include:

- Introductory webinars on EQS courses (free)
- SEEQS school structures (cost associated)
- Understanding the Portfolio Defense Process webinar (cost associated)
- SEEQS “Camp” professional development sessions (cost associated)

[Sign Up](#)

School Visits

Free



Visitors are always welcome at SEEQS’ Honolulu campus for student-led tours.

[Sign Up](#)

Light-Touch Consulting

Cost Associated



SEEQS faculty and administrators offer customized implementation support, such as 1:1 coaching for faculty or staff or consulting for interested schools. These sessions can be tailored around the needs of each particular school community and its areas of interest.

[Get in Touch](#)

Reach

SEEQS, which opened its doors in 2012, serves approximately 180 students each academic year.

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School

600+

Students

50+

Community
partners

200+

Student-led
tours

Impact

At SEEQS, where the EQS model is combined with a strong community and rigorous academic courses, results are promising.

Students at SEEQS consistently outperform their peers on the Hawai'i State Assessment.

- English Language Arts (ELA): in 2022–2023, 74% of SEEQS students performed at or above the ELA standard, compared to the state average of 50%.
- Science: in 2022–2023, 67% of SEEQS 8th grade students performed at or above science standards, compared to Hawai'i's average of 40%.

Students at SEEQS see the value in the EQS model.

- In a doctoral student's dissertation study of SEEQS, 92% of interviewed students stated that EQS was an impactful or meaningful part of their school experience, and 83% of participants felt prepared for the level of academic work required in high school.
- *"The curriculum and community inspires me every day to do better for my education and planet."* – SEEQS Middle School Student
- *"Before I came to SEEQS, I didn't care as much, but over my time at SEEQS I've started to see that the world isn't just this nebulous idea; it's the people and places around us, and a major step to being a steward of planet Earth is to care about the world around you."* – SEEQS Middle School Student

Contact

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RESOURCES



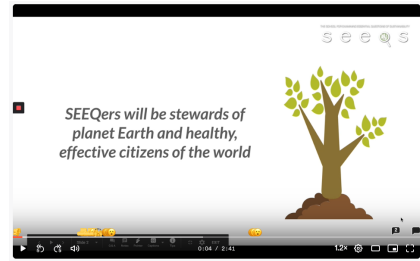
[EQS at SEEQS](#)

An overview of the project-based EQS course at SEEQS



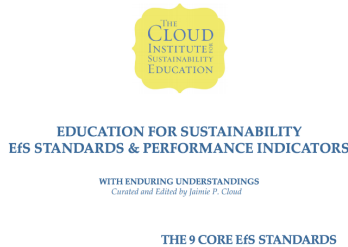
[SEEQS Model](#)

The overarching model for student growth and development at SEEQS



[SEEQS Overview](#)

An in-depth explanation of the SEEQS model in action



[Cloud Institute's Education for Sustainability Standards](#)

The 9 content standards and performance indicators developed by the Cloud Institute to help prepare young people to lead a sustainable future

Interview Project Overall Checklist

Each of the steps in the overall checklist below are explained in more detail throughout the rest of this document.

- Pitch: Reciprocity in Action Interview Brainstorm → due by Monday, Feb. 28
- Pre-interview: Background Research → due by Friday, March 4
- Pre-interview: Set up your interview → must be done before April 1 Interview due date
- During the interview: Complete the Interview → due by Friday, April 1
- Post-interview: Create the Reciprocity in Action Checklist → due by Friday, April 8
- Post-interview: Answer 4 Reflection the Questions → due by Friday, April 15

Section Assessed	Standard	Succeeding Looks Like...	Soaring Looks Like...
Background Research	Systems & Change: Responsibility: Student can demonstrate an understanding of how one event can influence another, defining how...	Background Research responses show that: <input type="checkbox"/> Student has identified important information they know and need to know about the interviewee's role within a system (question 1 & 2)	<input type="checkbox"/> Student has researched beyond the interviewees to learn about other people/ organizations that have been impacted

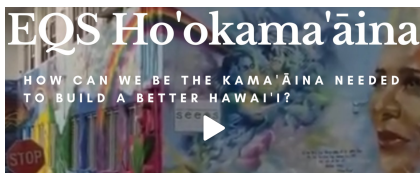
[Sample EQS Project Rubric](#)

Sample rubric used to guide and assess students as they develop their EQS projects and prepare for the Public Project Exhibition



[Sample 6th Grade Public Project Exhibition](#)

Sample 6th grade EQS projects, showcased at the Public Project Exhibition



[Sample 8th Grade Public Project Exhibition](#)

Sample 8th grade EQS projects, showcased at the Public Project Exhibition

EQS Guidebook

How to Use this Guidebook

The purpose of the EQS Guidebook is to provide framing and guidance for the planning and implementation of the EQS courses at SEEQS. Its primary intended audience is members of the SEEQS community who are responsible for implementing EQS.

The guidebook itself examines an Essential Question of Sustainability:
How can we ensure that EQS can continuously exist in its original vision while remaining responsive to its community members and surroundings?

The guide contains descriptions of the purpose of each part of EQS, guiding questions for helping plan, references helpful documents and provides some historical context to how EQS has evolved into what it is today. Additionally, this guidebook includes helpful management structures and tools, as well as guidance on implementing effective co-teaching.

[EQS Guidebook](#)

Helps SEEQS educators plan for, develop, and implement EQS courses

Portfolio Defense Guidebook for Students and Families

Part 1: Overview
[Explanation of the Portfolio Defense Process](#)
[SEEQS Sustainability Skills](#)
[The Basic Structure](#)
[The Portfolio:](#)
[The Defense:](#)
[Timeline Overview](#)

Part 2: Creating & Defending the Portfolio

[Portfolio Defense Guidebook](#)

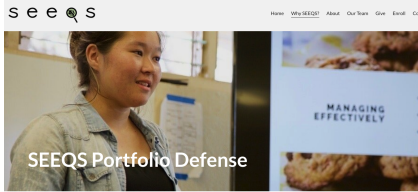
Defines and outlines the expectations for the 8th grade Portfolio Defense

Hi everyone! My name is Myumi and this is me. About Me page. I am Chinese, Italian, African American, and Native American. I was born in Berkeley, California, and moved to Hawaii when I was 4 years old. I'm a really positive person, and I laugh at pretty much anything. I am basically always happy. I have always wanted to be some sort of teacher, dancer, musician, and I hope to become one in the future. I also love dance, music, and theatre and would want to teach in those areas.



[Example Portfolio: Myumi](#)

Sample 8th grade student portfolio created to showcase growth of sustainability skills throughout the middle school experience



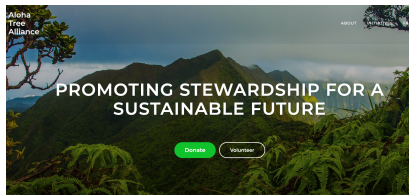
[Portfolio Defense](#)

An overview of the SEEQS Portfolio Defense, as well as sample student portfolios



[808 Cleanups](#)

Homepage of 808 Cleanups, a past partner of SEEQS' EQS model



[Aloha Tree Alliance](#)

Homepage of the Aloha Tree Alliance, a past partner of SEEQS' EQS model

[Nourish Our 'Ohana Today. End Hunger Tomorrow.](#)

Read Our Annual Report

For 43 years, Hawai'i Foodbank has been synonymous with getting food in the hands of those in need. We believe that consistent access to safe and healthy food is a fundamental human right, and the Foodbank has been working to ensure that no one goes hungry in our communities for four decades now. Looking forward, we are working to broaden our reach by building capacity, strengthening support to our partner agencies, promoting advocacy and research opportunities, purchasing more food, and, most importantly, building connections.

Learn more about our work over the last year and how you can help.



[Hawai'i Foodbank](#)

Homepage of Hawai'i Foodbank, a past partner of SEEQS' EQS model



[SEEQS Sharing Hub Offerings](#)

An overview of SEEQS' shareable resources and professional development offerings



At SEEQS, one of our core values is Living Sustainably, helping ensure that the planet can continue to support life as we know it for humans and other living species. In order to help create and maintain such a sustainable world, SEEQSers are working to master these five skills.

Reasoning Analytically

Making judgments based on reasons and evidence

SEEQSers face challenges with reason. They break problems into parts that can be named, studied, and understood. They make judgments based not on unexamined opinions but on the review of data and the weighing of evidence.

[SEEQS Sustainability Skills](#)

5 sustainability skills that SEEQS students work to master during their time in school