LEARNING EXPERIENCE INITIATIVE

A design brief for learning experiences that prepare young people for all the future has to offer

CF+XQ Learning Experiences will put an accessible and powerful form of student learning within reach of high school teachers and students everywhere.

Introduction

The CF+XQ Learning Experience Initiative is a strategic effort to produce and test a collection of curricular materials that will put an accessible and powerful form of student learning within reach of high school teachers and students everywhere.

This checklist and design brief articulate the features of a CF+XQ Learning Experience, or LX. LXs are project-based, high interest, authentic, and rigorous—long enough for sustained learning inside and outside the classroom, but short enough to allow variety over the course of a school term. They are multi-dimensional, designed to build academic content knowledge and academic, cognitive, and social-emotional capacities at the same time—a goal made possible by using the XQ Competencies alongside existing academic standards. Furthermore, they are expansive in their use of time and space, designed to be taught over 3-6 weeks, accommodate a real project, and get students out of the classroom and into their communities.
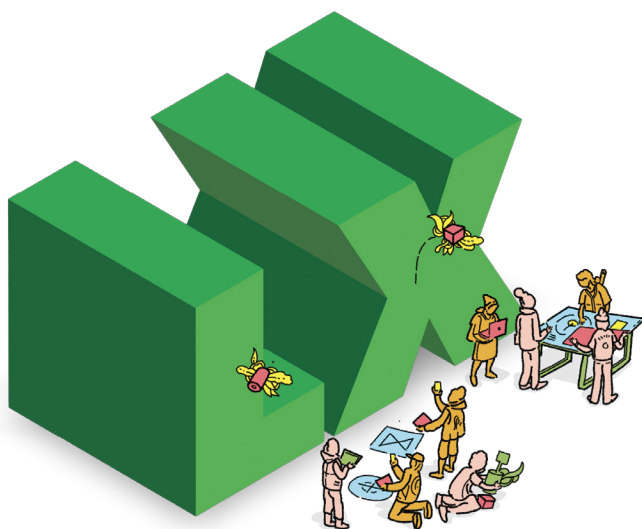
How do we get there?

We are rapidly co-creating an initial collection of LXs with a small number of innovative curriculum makers, learning together as we go. We will be piloting those LXs in classrooms beginning in fall 2023.

XQ is simultaneously developing tools and technology to make LXs accessible, intuitive, and rewarding for educators and students. In particular, XQ is collaborating with makers, schools, and other partners to develop competency-based measures such as performance tasks, portfolio reviews, and more traditional measures that can be incorporated into LXs to enable meaningful assessment of student learning, growth, and development.

What's next?

This is just the beginning! We're working now to create and test a first round of LXs that exemplify the CF+XQ approach. At the same time, we're imagining and building new ways to get involved—through a makers' network, a youth lab, and other activities. Whether you're a teacher, a curriculum maker, a school leader, or a student, there's a place for you in this exciting work.

Please sign up and look for updates on tools you can use.

Design Checklist

This checklist articulates the core characteristics or "must-haves" for a CF+XQ LX, based on what we know about the needs of young people and the science of adolescent learning. For more on how LXs will fit into a vision for XQ Learning, grounded in the XQ Learner Outcomes, see the XQ Learning Booklet.

A CF+XQ LX is:

1. Multi-dimensional

☐ Builds academic content knowledge and academic, cognitive, and social-emotional capacities at the same time

2. Project-based

☐ Involves an element of making, toward accomplishing a concrete goal

☐ Offers students multiple opportunities to show and refine their work

☐ Allows for student choice

3. High interest

☐ Begins with a "hook" to grab attention from the start

☐ Sparks curiosity

☐ Has relevance for a wide array of students

4. Authentic

☐ Provides a genuine rationale for the work students do

☐ Creates a connection to the world outside school

5. Rigorous

☐ Demands strong cognitive lift

☐ Incorporates performance tasks, feedback, and assessments

6. Expansive in its use of time and space

☐ Gives learners enough time, approximately 3-6 weeks

☐ Facilitates learning beyond the classroom and engages community

☐ Elevates student voice and autonomy

*CF+XQ LXs are designed to address multiple XQ Competencies, based on the five XQ Learner Outcomes: Holders of Foundational Knowledge, Masters of Fundamental Literacies, Original Thinkers for an Uncertain World, Generous Collaborators for Tough Problems, and Learners for Life.

Design Brief

Overview

The Carnegie Foundation for the Advancement of Teaching and XQ Institute have joined forces in a multiyear partnership to catalyze and instantiate the transformation of high school learning at scale. Along with others, we agree that defining learning based on time spent at a desk or logged onto a digital platform ignores what we know about how people actually learn. Our goal is to replace time-based and classroom-based conceptions of learning with a new education architecture that focuses clearly on student growth and outcomes—the actual knowledge and skills acquired by students.

The CF+XQ Learning Experience Initiative is a strategic effort to produce and test a collection of powerful curricular materials, which we call CF+XQ Learning Experiences (LXs), that will put an accessible and powerful form of student learning within reach of high school teachers and students everywhere. These will be the learning experiences that young people need to thrive today and in the future. They are student-centered, increase student engagement and motivation, and build productive perseverance in learning and academic identity.

Through challenges, commissioned work, a library of resources, and other activities, we aim to make an initial set of exemplary LXs widely available in 2023-24, while also laying the groundwork for a longer-term effort to stimulate a sustainable market for these materials. To do so, it will be necessary both to catalyze the supply side (existing curriculum developers plus new entrants, out-of-school-time providers, and students and teachers themselves) and to grow the demand side by working with schools and learning communities to bring about wide adoption and use.
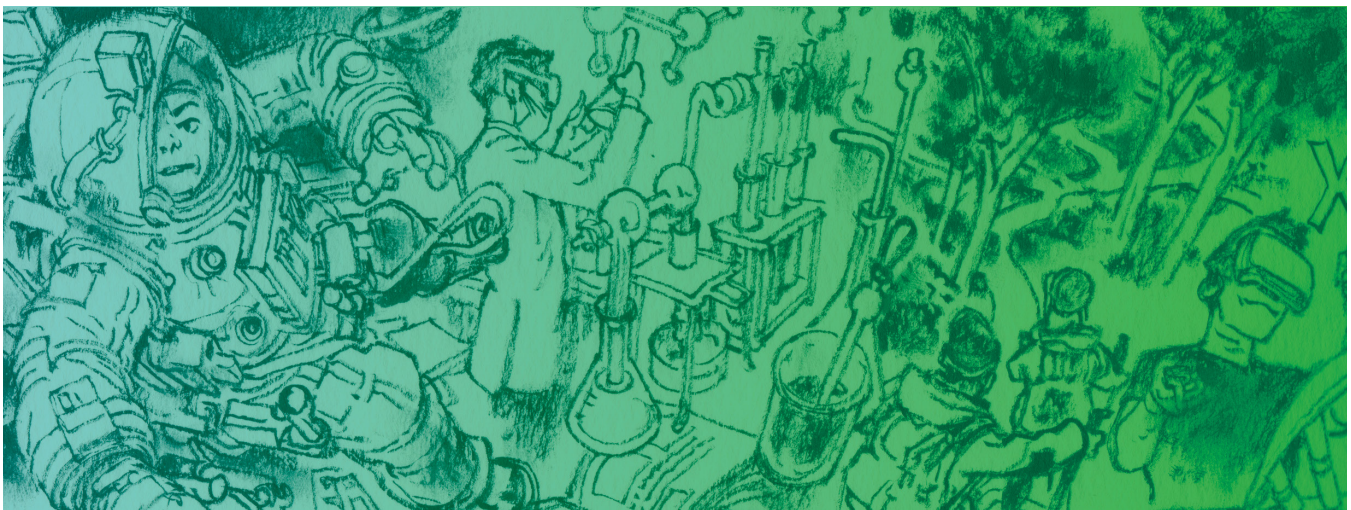
What is a CF+XQ Learning Experience?

A CF+XQ Learning Experience (LX) is a module of curriculum designed to engage young people in learning that is project-based, high-interest, authentic, and rigorous (see below for definitions). Unlike current domain-specific curricula, LXs are multi-dimensional, intentionally building students' academic content knowledge and their academic, cognitive, and social-emotional competencies at the same time. LXs also enable and even necessitate expansive use of time and space,

XQ defines student learning in terms of the five XQ Learner Outcomes, encompassing the full, rich array of adolescent learning and development. In turn, the Learner Outcomes are operationalized in a set of 37 Competencies. Each LX maps to a core set of competencies, specifies the academic content and competencies to be addressed, and incorporates competency-based measures of student learning.

Two XQ Learner Outcomes—Holders of Foundational Knowledge and Masters of Fundamental Literacies—represent Academic Competencies, while the other three XQ Learner Outcomes—Original Thinkers for an Uncertain World, Generous Collaborators for Tough Problems, and Learners for Life—represent Cognitive-Social-Emotional Competencies, or cognitive skills and social-emotional competencies such as creative thinking or self management. Each LX will address one or more Academic Competencies and one or more Cognitive-Social-Emotional Competencies.
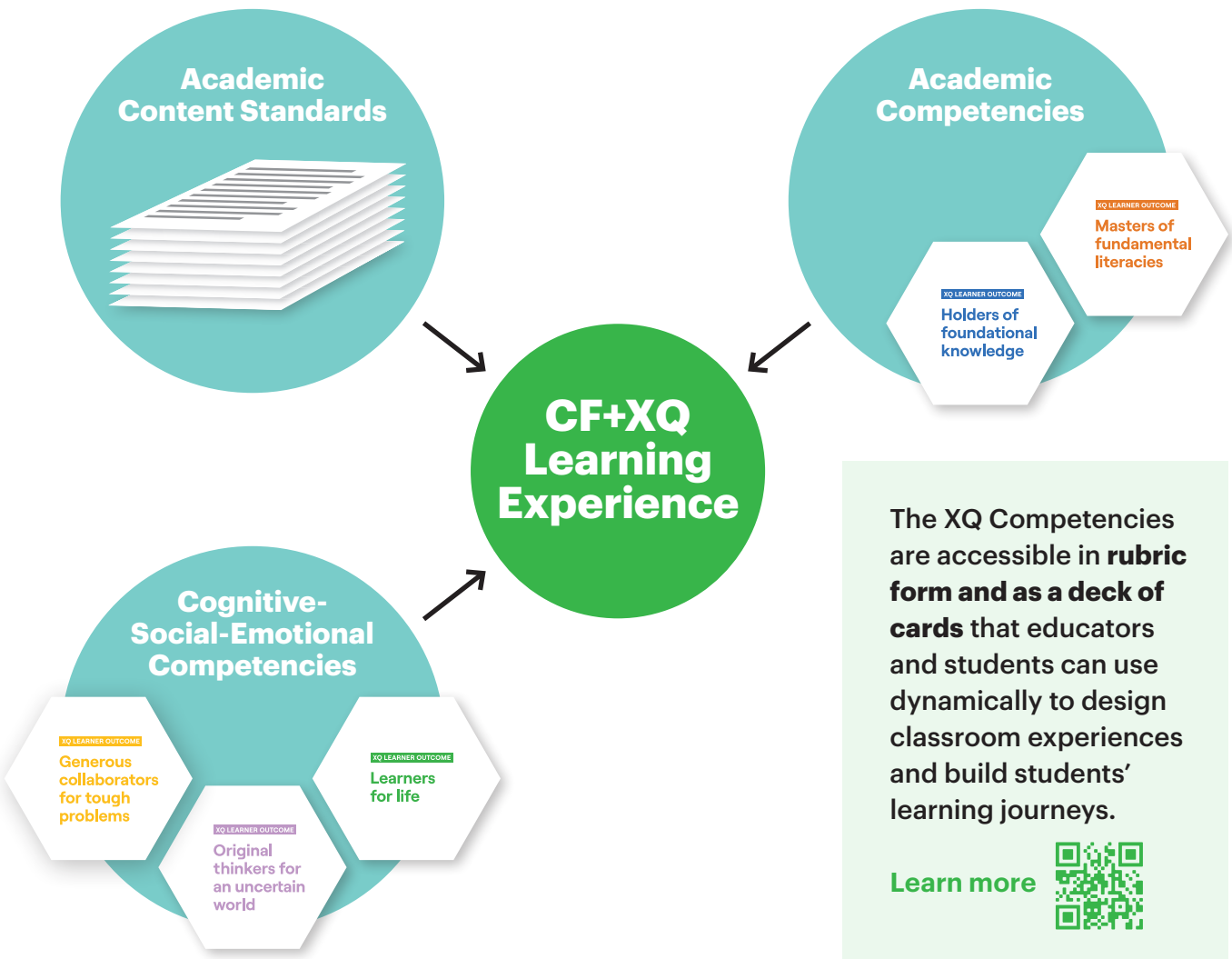
The Academic Competencies incorporate both academic content and knowledge-domain-specific skills. Operating at a larger grain size than traditional content standards, Academic Competencies can be mapped to high-quality standards (such as the Next Generation Science Standards or Common Core State Standards) to create learning objectives that go beyond two-dimensional lists of knowledge and skills to be acquired.

For Cognitive-Social-Emotional Competencies, each LX might develop one or two competencies deeply or several with a lighter touch. In most cases, that will mean the LX needs to explicitly teach the competency; for instance, if an LX is aligned with the competency "Synthesis: See and make connections," the curriculum module would specify for teachers and students what that looks like when done well and how to improve what is not done well. In this way, students would have multiple opportunities to deepen their understanding of each competency across a variety of contexts throughout a course.

As they demonstrate mastery of competencies through LXs, students will have the opportunity to earn badges for each competency. Badges can fit together to signify related or complementary areas of accomplishment, ultimately adding up to the equivalent of conventional courses, an XQ credential, or an entire high school transcript.

LXs are straightforward to implement; each LX incorporates guidance and support that enable teachers and other adults to deliver LXs with quality, fidelity, and high levels of personalization. LXs come with advice to teachers on how to adapt them for all learners, including ELL students and those with exceptional learning needs.

A CF+XQ LX intentionally builds students' academic content knowledge and academic, cognitive, and social-emotional capacities at the same time.

Academic Content Standards

CF+XQ Learning Experience

Academic Competencies

XQ LEARNER OUTCOME
Masters of fundamental literacies

XQ LEARNER OUTCOME
Holders of foundational knowledge

Cognitive-Social-Emotional Competencies

XQ LEARNER OUTCOME
Generous collaborators for tough problems

XQ LEARNER OUTCOME
Original thinkers for an uncertain world

XQ LEARNER OUTCOME
Learners for life

The XQ Competencies are accessible in **rubric form and as a deck of cards** that educators and students can use dynamically to design classroom experiences and build students' learning journeys.

Learn more

In math, for example, the XQ Math Badging Initiative has defined a set of Academic Competencies in the form of badges; one such badge combines linear functions and modeling. An example from the humanities might combine content on the Industrial Revolution with economic and policy analysis.

The XQ Competencies specify developmental indicators, based on research and expert practice, for 37 core competencies and 121 sub-competencies. These provide a framework for incorporating meaningful, authentic measures of student learning in all LXs. Each competency will have a set of indicators, requisite knowledge and/or skills, and multiple embedded opportunities to demonstrate mastery (e.g., performance assessments). The XQ Competencies allow mastery criteria and expectations of students for each LX to be fully transparent to students, educators, and families—for example, as clear rubrics and exemplars of student work.

As part of the work ahead, CF+XQ expects to collaborate with makers, schools, and other partners to develop competency-based measures such as performance tasks, portfolio reviews, and more traditional measures that can be incorporated into LXs to enable meaningful assessment of student learning, growth, and development.

Every LX includes these elements:

- A "hook" that grabs attention right from the start and a compelling mission

- Concise instructions for students on what to do and why—even if they missed what the teacher said; images, video, audio are encouraged

- XQ Competencies and academic content knowledge to be addressed; required background knowledge, if any

- A brief educator guide that presents a clear arc and shows connections

- Skill-builders or independent study options; videos, interactives, readings, etc.

- Embedded formative and summative assessments; examples of student work that serve as evidence of learning

- Recommendations for differentiation

- Recommendations for professional development

- Must-read materials are clearly marked; all other materials placed in an appendix so as not to overwhelm busy educators with optional material

Every CF+XQ LX has a compelling mission or call to action at its heart—something that can be explained in a sentence, like the premise for a great movie, and sets a clear goal that students may achieve in many ways. Here are some examples:

- *Form a team that designs, builds, and launches a rocket to 1,000 feet*

- *Collect and analyze original data on a local climate change effect to be included in a public exposition*

- *Submit an entry, including a written guide, to a public show of photography on the social effects of gentrification*

- *Play a delegate at a constitutional convention and decide whether to ratify a new constitution*

Modular in format, an LX typically lasts 3-6 weeks and fits within a coherent high school course or program, whether an existing course or a new course consisting entirely of approximately 6-8 LXs.

LXs are readily available to anyone who wants to try them, combine them into longer experiences or full courses, share them with colleagues, or even author them. They are straightforward to implement; each LX incorporates guidance and support that enable teachers and other adults to deliver LXs with quality, fidelity, and high levels of personalization. LXs come with advice to teachers on how to adapt them for all learners, including ELL students and those with exceptional learning needs.

**An LX has six key characteristics:**

1. Multi-dimensional
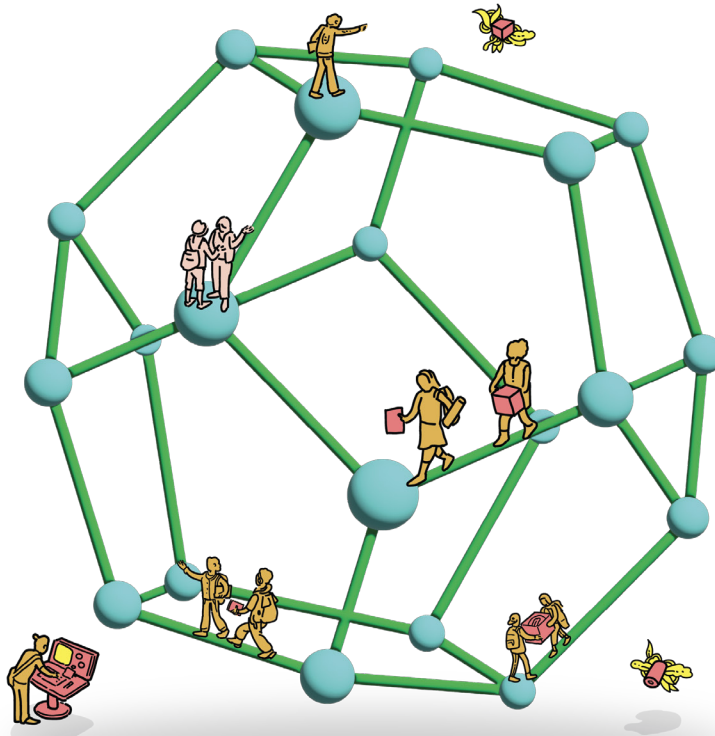
In our vision for CF+XQ Learning Experiences, knowledge will no longer be divided into false silos that stifle opportunities to develop transferable skills and apply them in new situations, and students will no longer be pushed to meet inequitable benchmarks that fail to showcase their actual abilities. Instead, as many educators already believe is needed, LXs will weave competencies together intentionally in coherent experiences. (After all, students can't think critically without having something to think critically about.)

- An LX is designed to address specific academic content that students need to learn, typically from the Common Core State Standards, Next Generation Science Standards, or other state or locally adopted standards.

- An LX also addresses one or more Academic Competencies, drawn from two XQ Learner Outcomes: Holders of Foundational Knowledge and Masters of All Fundamental Literacies.

- At the same time, an LX intentionally addresses one or more Cognitive-Social-Emotional Competencies, drawn from three XQ Learner Outcomes: Original Thinkers for an Uncertain World, Generous Collaborators for Tough Problems, and Learners for Life.

2. Project-based
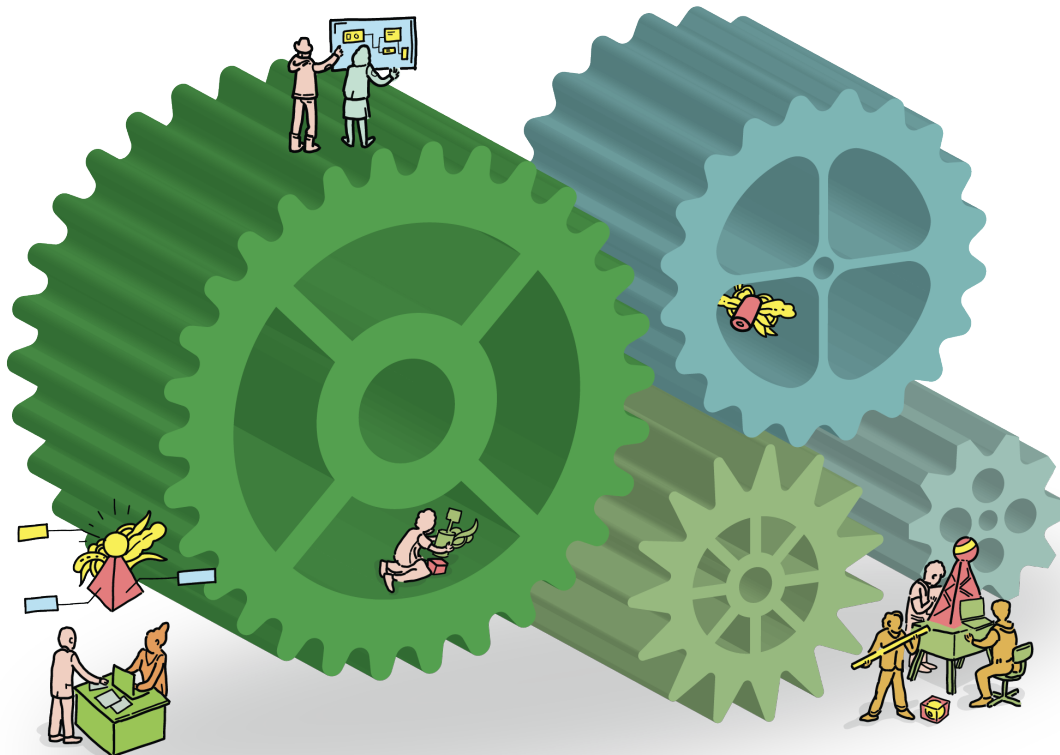
An LX launches a project that learners can make their own. It lacks a single solution, lending itself to real-world problem solving and deep exploration. For the designer, deciding what the project is about is the defining moment in creating an LX.

- An LX has a mastery orientation, so that students have multiple and varied opportunities to acquire skills and to revise their work.

- For the purposes of adoption by teachers, most LXs focus on one content area,

but they don't shy away from other disciplines and may specifically foster interdisciplinary work.

- An LX culminates in an authentic product and entails an element of making.

- LXs can be undertaken in school, out-of-school, or hybrid. They capitalize on relevant opportunities made possible by technology, and all require beyond-the-classroom learning and application.

3. High interest
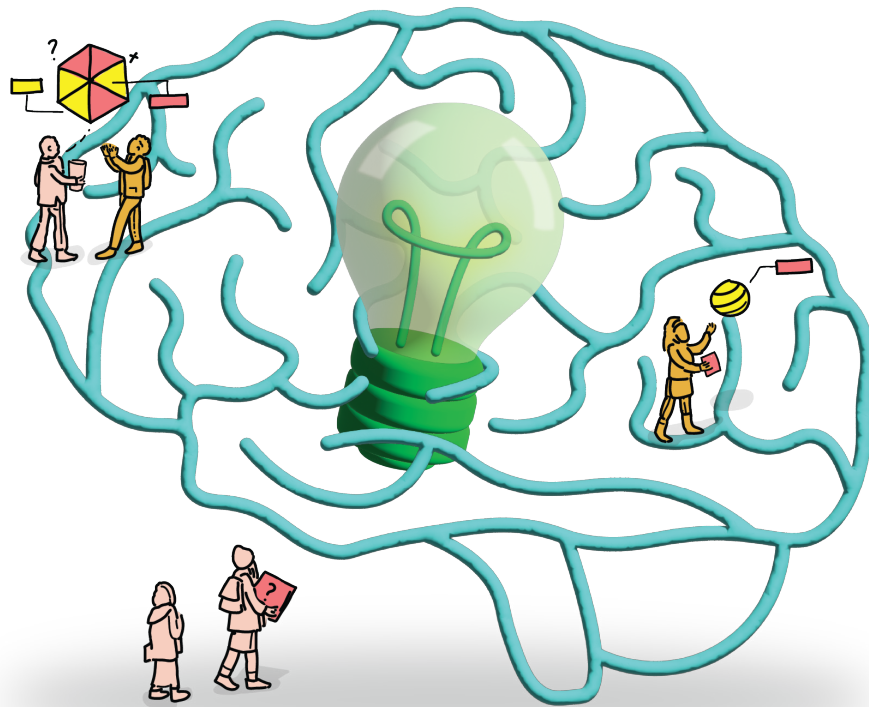
An LX is intellectually stimulating—not just interesting, but sufficiently engaging that some learners will discover a passion for the topic—so much so that they want to work on it outside of class time. It sparks curiosity and draws students to new ideas that allow them to expand outside their comfort zones.

- An LX is culturally responsive, relevant, and applicable to young people and their community. Students can see themselves and their peers in their work. It is accessible to all, including English language learners and students with special needs.

- It gives students a degree of choice and invites creative expression.

- It often involves adults other than the teacher: industry experts, higher education faculty, college students, civic leaders, and others can play key roles. It may offer the opportunity to leverage local resources such as museums, industries, or cultural organizations.

- The activities are engaging, making use, as appropriate, of challenges, performances, role-playing, making, expeditions, labs, seminars, community projects and dialogue, or other activities.

- The design is polished, with production values comparable with the best commercial products. Where relevant, it makes use of virtual/augmented reality, simulations, immersive narratives, games or game-like experiences, and other media technologies.

4. Authentic

An LX requires authentic work; it is never a thinly veiled vehicle for arriving at predetermined solutions. This doesn't mean it is not academically rigorous, nor that it has to be serious; it can be fantastical or require a backstory. It must feel coherent and genuine: asking students to make something and then write an essay about it is likely not authentic; the essay would need a rationale other than "This is school work."

- An LX is organized around a big concept or insight that students absorb deeply; for example, official explanations should be explored and verified; form and content reinforce each other; if you zoom in close enough to a curve, you can treat it like a line. Students glaze over when they see inauthentic, granular lists of standards; for students, the takeaway from an LX should be imaginative, compelling, timeless.

- Authenticity must extend to the product students create and to the audiences for their work: experts, community members, peers, or others.

- Where possible, LXs are student-directed; the role of the adult is one of expert facilitator. (In practice, students need to experience several LXs before they are ready to take responsibility for directing their learning.) Teachers point students to supportive resources, provide evaluation and feedback, and offer clear guidance to ensure rigor.

5. Rigorous
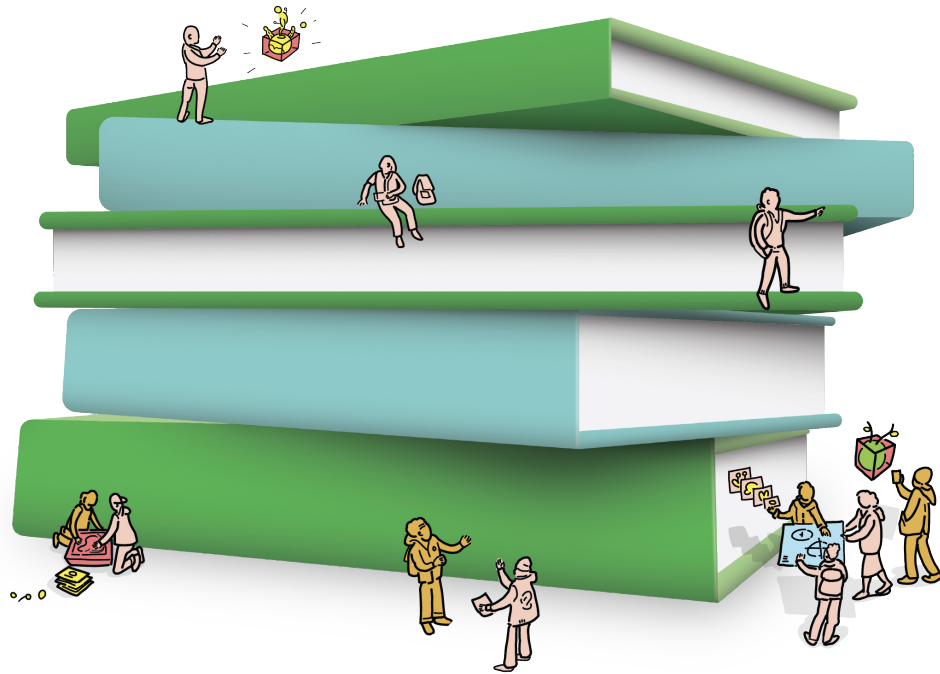
An LX requires cognitively challenging, grade-level work of all students, although some students will take their learning beyond grade level. Each LX specifies what it is designed to cover in terms of academic content and XQ Competencies: both what is addressed and what is assessed. It specifies the background knowledge and prerequisites students need in order to engage successfully in the learning experience.

- An LX requires students, not teachers, to provide the cognitive lift. Scaffolding and supports do not lower cognitive lift but provide access to complex concepts.

- Student-facing materials are at or above grade level in terms of reading level and thematic complexity. Students spend most of their time constructing and creating meaning, not imbibing information.

- Guidance to teachers emphasizes and enables fidelity to the LX as designed;

experience shows that adaptation typically leads to a watering down of rigor.

- Student choice can lead students to encounter different areas of content and competencies. An LX anticipates which choices are encouraged and which are not, and provides teachers with direction and resources to guide students.

- An LX strategically foresees, stimulates, and meets students' in-the-moment needs to build or recover foundational skills; for example, through a just-in-time skill-building online activity, video, or reading.

- To consolidate students' newly acquired skills and move toward mastery, an LX also includes ideas and links that lead to practice beyond the project.

- Rigor is reinforced and assessed continuously through meaningful measures and feedback, aligned with the XQ Competencies the LX is designed to address.
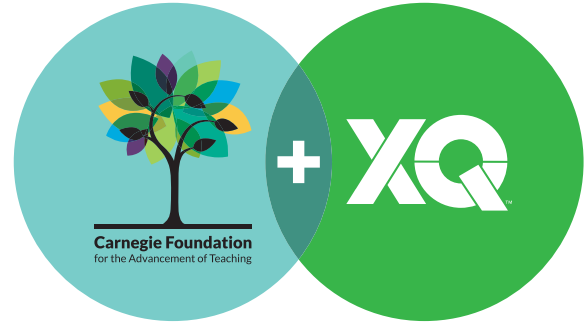
6. Expansive in its use of time and space
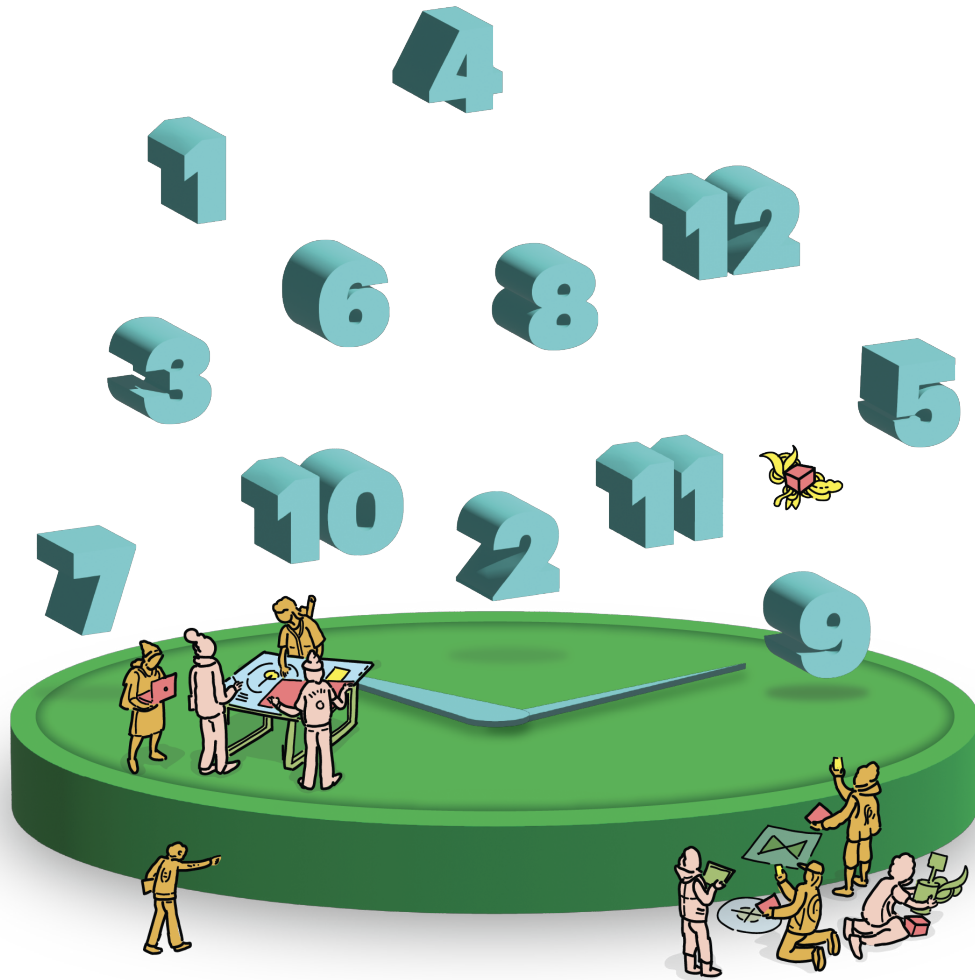
An LX typically lasts 3-6 weeks: long enough to accommodate the arc of an authentic project and short enough to allow a variety of experiences across a coherent high school course.

- A duration of 3-6 weeks facilitates learning beyond the conventional classroom and in the community.

- It also provides opportunities for student voice and autonomy, both of which are essential for adolescent learners.

- An LX fits within an existing course or a new course consisting entirely of approximately 6-8 LXs.

CF+XQ: About the partnership

At the Carnegie Summit 2022, XQ and the Carnegie Foundation launched a path-breaking partnership to catalyze and co-construct a new educational "architecture" to support secondary school transformation across the United States and the globe. Our goal is to liberate learning from the confines of a time-based system and build outcomes-based systems—fueled by the latest research in neuroscience and learning sciences—to prepare young people for all the future has to offer.

This new architecture requires investing in the creation of new building blocks: clear and persuasive learner outcomes; powerful learning experiences aligned with those outcomes; new student performance frameworks; technology-enabled badging, assessment, and transcript systems to validate, credential, and codify what young people learn; and mold-breaking designs for teaching, learning, and schools.

This new architecture will shape the future of learning.

About XQ Learning

Learning for All the Future Has to Offer

XQ defines student learning in terms of the five XQ Learner Outcomes, encompassing the full, rich array of adolescent learning and development.

XQ Learners are:

- **Holders of foundational knowledge**
- **Masters of all fundamental literacies**
- **Original thinkers for an uncertain world**
- **Generous collaborators for tough problems**
- **Learners for life**

Our current educational system is not designed to support student learning and growth across all those dimensions. Instead, for more than a century, our system has relied on the Carnegie Unit as the bedrock currency of the educational economy, undergirding almost every aspect of secondary and higher education.

To help create a new architecture that prepares students for all the future has to offer, XQ is creating—and co-creating with the Carnegie Foundation for the Advancement of Teaching and other partners—the necessary elements of a new approach to student learning, including the XQ SPF and Competencies, XQ Math, XQ Math Badging, and CF+XQ Learning Experiences.

We invite you to explore our work—and get involved!

Scan this code to learn more about XQ Learning.

You're invited!

Are you a curriculum maker?

An educator who works with young people inside or outside school?

A student?

There's a role for you in developing, piloting, and improving CF+XQ Learning Experiences. We'd love to stay in touch about opportunities to create, explore, and learn together.

Visit CarnegieXQ.us to learn more